

# Bulletin

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Issue 2/2020



## New paradigms

A whole new world –  
what's changing,  
what will stay the same?

# THANK YOU

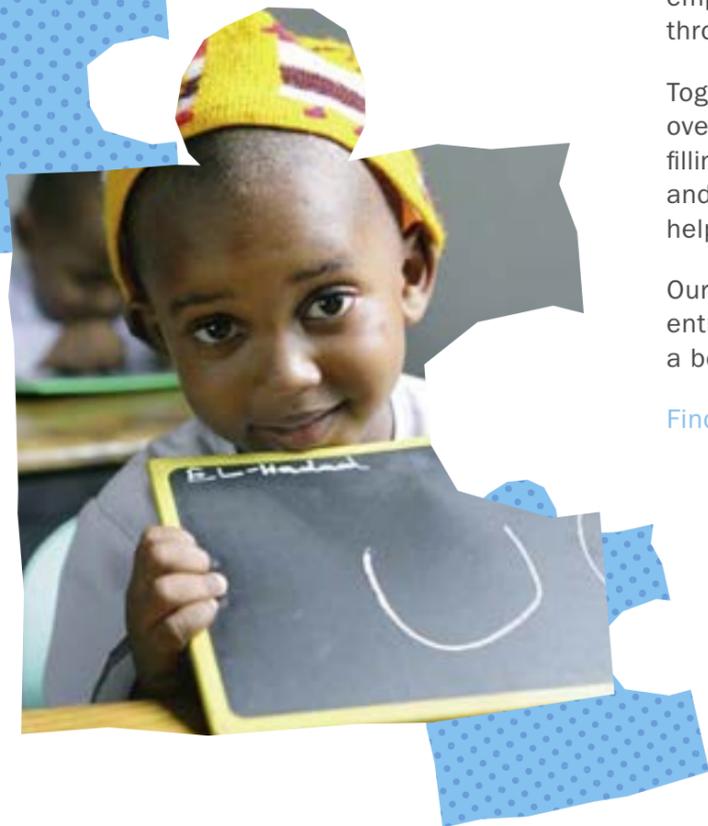
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## Looking ahead to a new world



by Urs Rohner With the world in the grip of the COVID-19 crisis, we are being bombarded with one distressing headline after another. The Financial Times, for example, calls this the “worst economic crisis since the 1930s.” The Bank of England is anticipating the “worst recession in 300 years.” A laconic, but apocalyptic headline in The New York Times proclaims “the end of the world as we know it.”

When one world ends, another begins. The contours of this new world – the “new normal” – are becoming clearer with each passing day. As it begins to take shape, it is already offering abundant material for analysis as we look toward the future. The economists at Credit Suisse are seeking some initial answers to questions that concern us all: Is protectionism increasing? Will we ever pay off our debts? Will the euro survive? What will happen to pensions? What will the long-term future of the financial markets look like? (Page 4)

The assessments of the CS economists clearly show that the COVID-19 pandemic is a momentous event with far-reaching and likely long-lasting consequences for the economy, politics and society. However, we should stick to the (available) facts and avoid concluding too hastily that the coronavirus crisis is a unique event.

Before we declare the end of globalization, overhaul our economic system and retreat from a global division of labor, we need to remember that, for poorer countries, that division of labor is precisely what is driving their economic development. ▶

Global cooperation continues to be important, since the COVID-19 pandemic will have (negative) effects on the distribution of income and wealth, both nationally and internationally. There is certain evidence to suggest that we need to focus not only on cost reduction, but also on risk reduction. The goal is to make global supply chains more resilient, particularly for strategically important goods, and less dependent on individual markets.

**I hope everyone shares this confidence in the future.**

It is in the DNA of Credit Suisse not only to pursue economic goals and interests, but also to play a role in strengthening the forces that hold society together. Accordingly, during the pandemic we joined together with the Swiss government and others to take responsibility and, within in a very short period of time, we set up a highly efficient arrangement for providing liquidity to help Switzerland's small and medium-sized enterprises get through

this difficult time. Our efforts also received praise from other countries. As a lender in the real economy, we must create the conditions that will allow companies to recover as quickly as possible. It should also be noted that, for a global bank headquartered in Switzerland, technological innovation is of tremendous importance. This is reflected in a comment made by André Hoffmann in an interview that can be found in this issue. After remembering the early days of the company that was founded by his great-grandfather, Fritz Hoffmann-La Roche, he went on to observe that "young companies can play a key role in Switzerland's future." (Page 50)

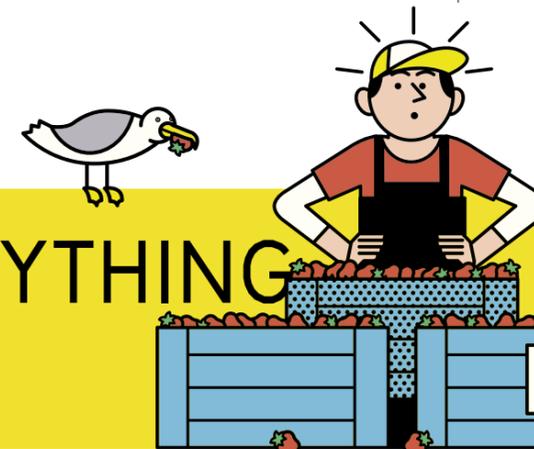
I hope that everyone who is grappling with the repercussions of the pandemic today shares this confidence in the future. And I trust you will all enjoy reading this issue.

**Urs Rohner**  
Chairman of the Board of Directors of  
Credit Suisse Group

The articles in this issue of Bulletin were written in April and May; the editorial deadline was June 10, 2020.



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# Now what?

Credit Suisse  
economists answer  
12 pressing  
questions about  
the post-COVID  
world.

outlooks



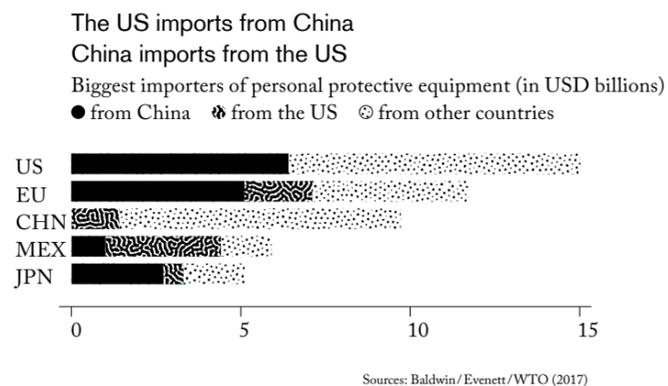
# 1

## Is protectionism on the rise again?

Short answer: It might be, but the opposite would be correct and necessary. Economic crises often trigger protectionist reactions. Politicians can boost their popularity by at least appearing to protect affected workers and companies. For example, at the start of the Great Depression in the 1930s, the US Congress passed the Smoot-Hawley Tariff Act, raising US import taxes from an average of just over 5 percent to 20 percent, and as high as 60 percent for many goods. Foreign governments retaliated by increasing tariffs on US goods, and global trade plummeted. In the end, the act only served to prolong the Great Depression.

After the 2008 financial crisis, the governments of the G20 countries agreed to abstain from protectionist measures. But they couldn't resist them completely. Mechanisms that advantage domestic producers, such as "cash for clunkers" subsidies for domestic cars, and the promotion of domestic exports also hurt foreign companies – and taxpayers are the ones bearing the costs.

During the COVID-19 pandemic, governments once again resorted to protectionist policies for the ostensible purpose of protecting their citizens' health. Many countries lowered tariffs on medical goods in order to provide for their own populations more cost-effectively, and others banned exports of such goods. Fortunately, these measures were often rolled back due to their negative effects,



but that doesn't mean the risk of increasing protectionism is off the table. For instance, many governments are openly considering moving the production of strategically important medical products back onshore to reduce their dependence on "unreliable foreign supply chains." Such policies of self-reliance would not only be extremely costly, since they would eliminate the benefits of international distribution of labor, they could also actually increase a country's vulnerability to a pandemic. Imagine if certain drugs were not available domestically or if production had to be stopped due to a local outbreak.

The opposite approach is correct and necessary: an international agreement that commits companies to keeping trade open for life-saving goods and long-term government purchasing guarantees that give companies an incentive to maintain enough production capacity to meet the needs of both domestic and foreign customers. —

# 2

## Are pensions at risk?

Short answer: Pension systems are coming under increased pressure, and raising the retirement age now seems possible. The pandemic will not threaten pensions on a fundamental level, but its economic consequences will impact the accounts of state and private pension systems, and accelerate trends that were already emerging before the pandemic.

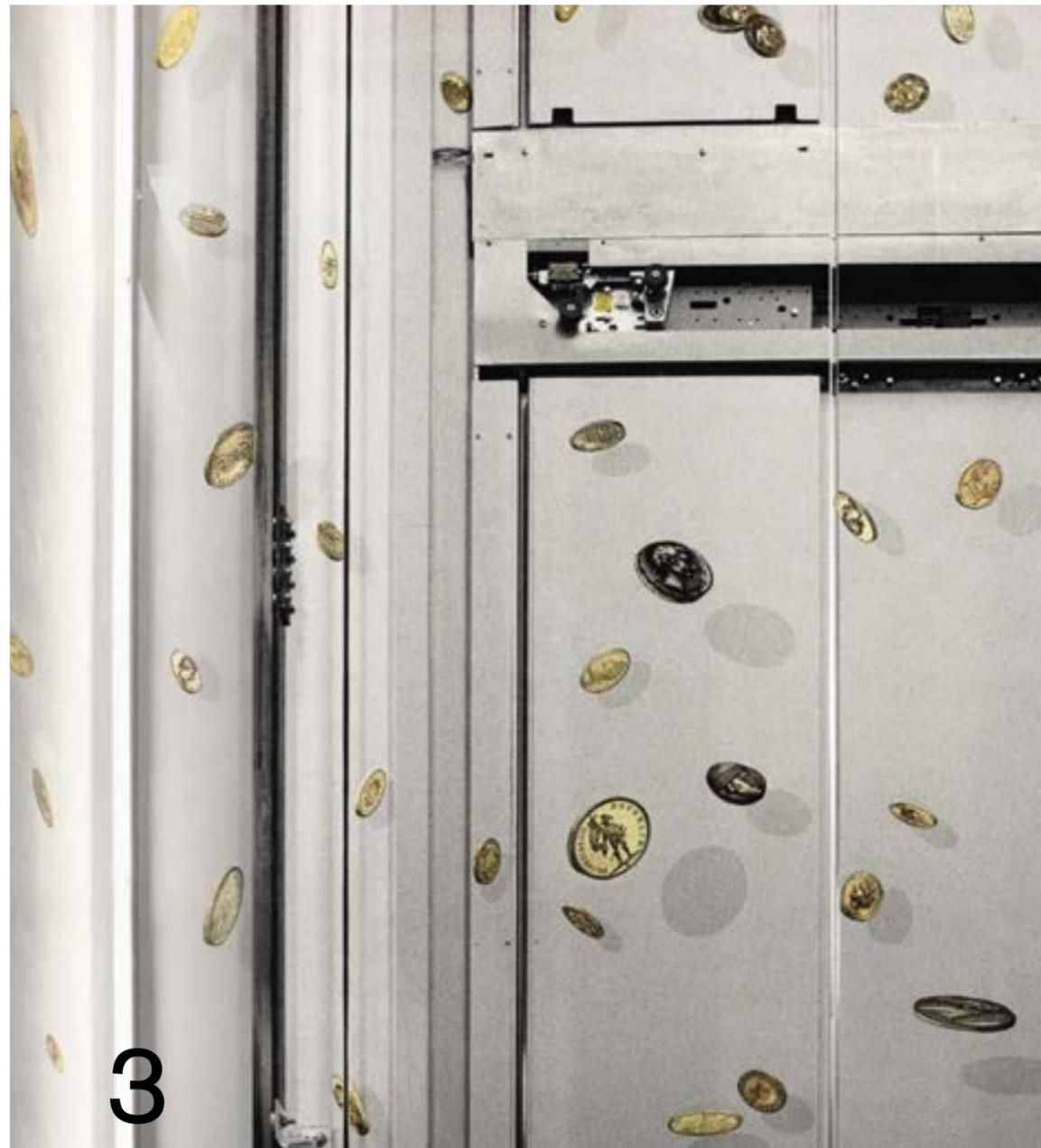
If the redistribution of wealth between younger workers and pensioners carries on unchecked, the prospects for younger and future generations will continue to worsen, and their pensions will likely be significantly smaller than today's. We estimate that the decline in replacement rates will be between



5 and 15 percent, depending on income level. The Swiss Old Age and Survivors' Insurance (AHV), funded largely on a pay-as-you-go basis, has been paying out more than it takes in for years now and is especially susceptible to economic disruptions. These pensions are funded primarily by worker contributions and VAT revenues, which are currently strained by recession and unemployment. The demographic imbalance between those paying into the system and those receiving payments will be exacerbated in the years ahead as more and more baby boomers enter retirement – and the extra funding that Swiss voters recently approved will not change that.

The second pillar of employee benefits insurance will likewise not come away from the current crisis unscathed. In addition to salary contributions, asset growth relies partly on investment returns. Low interest rates reduce the return on fixed-income investments, which makes the employee benefits funds even more dependent on higher-risk investments. Further reductions in conversion rates on the extra-mandatory portion of these funds will also come soon enough. Lower returns and a potential deterioration of some households' financial situation may also ultimately slow the growth of private pension provision.

The bleak outlook for social welfare institutions could deepen the generational divide. One can only hope that the current crisis will lend new urgency to long-overdue pension reform. The government's growing debt, incurred through efforts to mitigate the economic impact of the pandemic, could prompt policymakers to rethink their priorities. The retirement age, a key parameter that has remained almost untouched to date, may suddenly come to be viewed as a less-odious alternative to increasing taxes and contributions in a recession-battered economy. —



3

## Will the money glut lead to inflation?

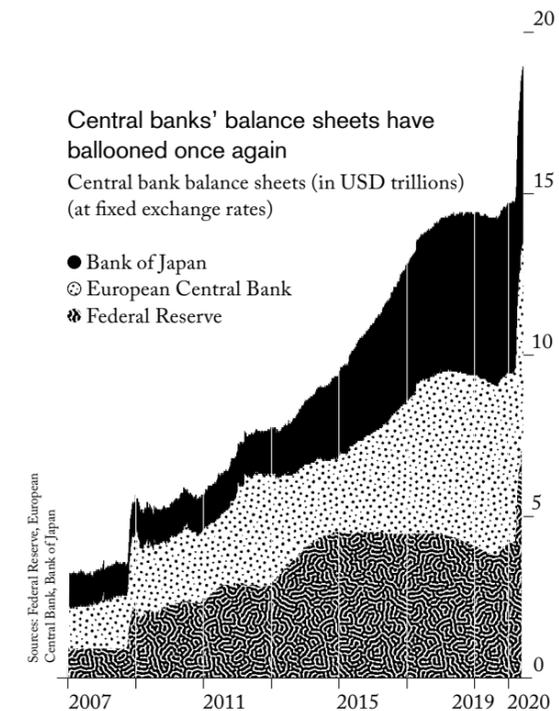
?

Short answer: It's conceivable, but unlikely. In an effort to stabilize the financial system, the US Federal Reserve and other central banks have pumped money into the markets – buying up government bonds and other securities – at a far faster rate and to a far greater extent than during the financial crisis. That has ballooned their balance sheets (see figure at right). Will

the abundance of money lead to inflation? Not necessarily. Inflation happens only when demand for goods and services exceeds supply for an extended period. To trigger this process, households and businesses must be willing to spend a large part of their incomes instead of saving. But the visceral shock of the COVID-19 crisis has left both feeling more inclined to save more than they did

before the crisis began, at least in the short and medium term. As a result, deflation is the more likely risk.

High levels of unemployment and massive inventories, which companies will have to reduce in the wake of the crisis, will also exert downward pressure on wages and prices. If, however, central banks and financial authorities are able to stimulate demand on a sustained basis, inflation could gain traction in the long term. If the central banks then resist tightening monetary policy or if they find themselves under political pressure to keep the money flowing, inflation could get out of hand. This scenario is conceivable, but not very likely. That is because aging societies, whose populations live on small pensions, do not like inflation – and will vote out politicians who try to encourage it. —



## 4 Is this the end of China's rise?

?

Short answer: Hardly. China's economy has also been hit hard. On average, Chinese economic growth in 2020 is expected to be less than half of what it was in 2019. Does that spell the end of China's rise to the world's second-largest, or even largest, economic powerhouse?

That seems unlikely for two reasons. First, the Chinese are still saving at extremely high rates and those savings are available to invest in driving growth. Second, even the current crisis is unlikely to suddenly derail China's extremely successful strategy of adapting and, increasingly, developing highly productive technologies.

To be sure, there are also factors that will slow China's growth. The Chinese population is aging, and, following the financial crisis, a lot of capital has gone into areas that are unlikely to drive growth or generate significant returns. For example, much has been invested in real estate, and lenders have given preference to less-efficient state-owned companies over more robust private enterprises. In general, the increasingly centralized control under Xi Jinping is undermining the country's vitality. Western efforts to reduce their dependence on Chinese technology could also hamper growth. Nevertheless, China remains on track for remarkable growth. —



# 5

## Will the euro survive ?

Short answer: Yes. At the start of the pandemic, there was little sense of solidarity among the countries of Europe. On the contrary, reports of unilaterally imposed border controls and export restrictions dominated the news. There was no central coordination of health policy measures to fight the pandemic. In terms of foreign policy, particularly with respect to the refugee situation, Greece received little support from its neighbors.

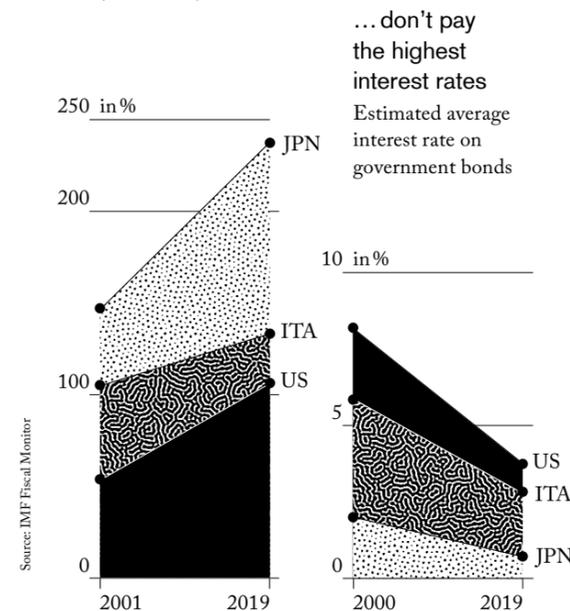
On the financial markets, fears of another financial crisis

in the Eurozone were mounting. Government bonds in Italy, which alongside Spain was hit hardest by the pandemic, came under intense pressure, and their interest rates edged upward. If that trend had continued unchecked, Italy's already-high interest payments (see figure at right) would have exploded. That in turn would have triggered a sovereign debt crisis similar to Greece's, but on a much larger scale because Italy's debt-to-GDP ratio is far higher. A serious crisis would also unfold if Italy's euro-

skeptical politicians were to make good on their threats to leave the monetary union. Introducing a new lira – which no doubt would lose considerable value against the euro – would turn Italy's euro-denominated debt into foreign-denominated debt overnight, making it expensive to the point that Italy could no longer service it.

However, both scenarios are unlikely to play out, precisely because of the chilling prospect of their fallout, which has been called the financial equivalent to a nuclear war. The key factor preventing such a crisis is the European Central Bank's willingness to buy up an unlimited volume of Italian government bonds if necessary. Draghi's "whatever it takes" attitude remains crucial to the euro's survival. Northern European members will overlook the fact that it will mean deviating from the "no bailout" rule, mainly as a matter of self-interest. After all, a common currency in a tightly integrated economic area like the Eurozone is a great advantage for Northern European producers and consumers. Thus it is also in the richer countries' interest to provide direct economic recovery aid to Southern European economies through the proposed EU fund. If Italian lawmakers were to actually replace the euro, Italy may become more competitive in the short term, but the country's savers – voters, in other words – would be hit hard. —

The world's most heavily indebted countries...  
Public debt-to-GDP (% of GDP)



# 6

## Can the mountain of debt ever be repaid ?

Short answer: Not in the foreseeable future, but that may not be a terrible thing. Many countries have sharply increased their debt-to-GDP ratios in their efforts to help households and businesses cope with the economic shock arising from COVID-19. Declining tax revenues are also pushing debt-to-GDP ratios upward. In the US, the ratio will rise to a level last seen after the end of World War II. Other countries' debt-to-GDP ratios are far higher still. And Switzerland is seeing ten years' work on reducing its sovereign debt come undone more or less overnight.

Can these mountains of debt ever be repaid? It is extremely unlikely to happen in the foreseeable future because a massive tightening of fiscal policy "just" to reduce debt would hardly be socially acceptable. Unlike the situation after World War II, it is also hard to imagine economies simply outgrowing their debt. On the contrary, demographic change and only moderate output growth will likely keep most countries' growth rates quite low.

Nevertheless, that certainly does not mean we are headed into a debt crisis. The key is to ensure that states' borrowing costs remain low. More specifically: As long as interest rates on debt securities remain lower than GDP growth, governments will be able to stabilize and even slowly reduce their debt-to-GDP ratios without overly tightening fiscal policy. But will investors be willing to buy enormous volumes of government bonds without demanding higher interest rates? Japan's example has shown for years that it is certainly possible. Japan has the highest public debt worldwide (measured as a percentage of GDP) but the lowest interest payments (see figure at left).

In countries with aging populations and uncertain pension systems, the pressure to save is high enough that individuals are willing to forgo interest in exchange for security. In Switzerland, investors are buying federal bonds despite the fact that interest rates are negative in both nominal and real terms. For the federal government, negative interest rates automatically translate to debt reduction. Taxpayers get back what investors lose in negative interest.



# 7

## Will the poor get poorer?

Short answer: Probably.

The virus can hit anyone, even a prime minister. But the poor will suffer the most from the pandemic, in industrialized and developing countries alike. The conditions in which the poor live and work make them more susceptible to infection while limited financial resources and inadequate access to medical services reduce their chances of recovery. Adding to that, the economic impact of the crisis will hit them the hardest.

Data from the US shows that the risk of dying from COVID-19 is several times higher for African-Americans and Latinos than it is for white people and that low-wage workers are more likely to lose their jobs in the pandemic than higher-paid workers. Socio-economic disparities in the US – a country that already has a high level of inequality – will become even more pronounced and thus further fuel the debate on restructuring the social system. Europe’s social market economies (including Switzerland) are institutionally far

better equipped to cope with the crisis, thanks in no small part to the option of short-time working.

The coronavirus pandemic will likely deepen income gaps not only within countries but also between countries and regions. In Europe, COVID-19 has hit two countries especially hard: Italy and Spain, both of which also suffered mightily under the Eurozone crisis at the start of the last decade. After that crisis, the governments cut healthcare funding, which ultimately made their populations more vulnerable to the current pandemic. These countries’ borrowing costs rose once again and, as a result, their governments’ ability to fund measures against the virus was more limited than that of their richer neighbors to the north.

The same mechanism also makes it even more difficult for many developing countries to fund actions aimed at combating the pandemic. That being said, the pandemic’s impact will likely vary considerably among different developing and emerging market economies. For

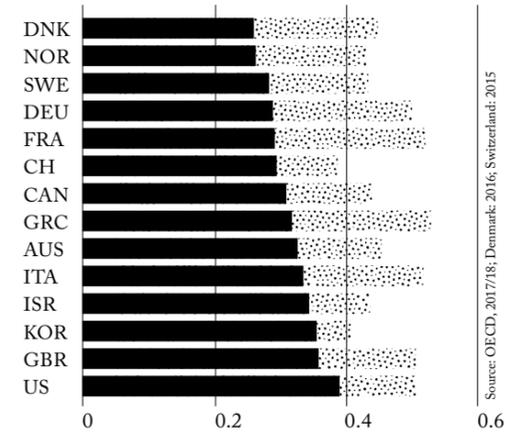


### Which countries are more equal

Income disparities:

Gini coefficient, 1 = maximum inequality,

☉ inequality of income before taxes (market income) and ● after taxes (disposable income)



example, there seems to be some evidence that the pandemic has affected some of Africa’s poorest countries less severely, in part due to the far lower average age of the population. According to IMF forecasts, loss of income will be considerably smaller in Sub-Saharan Africa (excluding South Africa) than in most South American countries, whose age structures are often quite similar to those of industrialized countries but where certain health indicators such as the prevalence of diabetes are often worse. By contrast, the decline in income in most Southeast Asian countries will be less severe than in Latin America. However, some of that region’s very poor countries, such as Bangladesh, where many Western fashion companies manufacture their products, have been hit hard by the slump in demand.

All in all, this crisis will widen the gap between those countries that have so far been successful and are growing faster – whether industrialized or developing countries – and those that have not yet managed to achieve the same level of growth, in part because of misguided economic policies.

# 8

## Will online learning continue after the crisis?

Short answer: Not advisable.

The past few months have forced us to digitalize many areas of our lives, including education. When the virus led to school closures, committed educators set up virtual learning within just a few days in order to continue teaching the planned curriculum. Learning at home has become the new normal, with improvised videos and instructions, and online teaching taking place via chat or conferencing software.

Previously a niche market for distance learning specialists, online learning has gained broader acceptance and will help shape access to educational offerings in the future, particularly in continuing education. The advantages of digital learning are obvious: flexibility, more current and scalable content, and improved digital literacy. But online learning doesn’t necessarily provide a good educational outcome for everyone. Particularly for

families with lower levels of education, in-person learning at school serves an important function, and its absence will negatively impact weaker students in the long run. —

# 9

## What will happen on the financial markets?

Short answer: Higher-risk investments will continue to yield higher returns.

Investors have suffered heavy portfolio losses in the wake of the coronavirus pandemic. Equities had proven highly resistant to geopolitical crises after the financial crisis and particularly in 2019. They hardly even reacted to the pandemic’s initial outbreak in China. But then, in March 2020, they (and other risk investments) suffered the fastest (if not the steepest) decline ever recorded. Was this shock only momentary, or did it usher in a fundamental

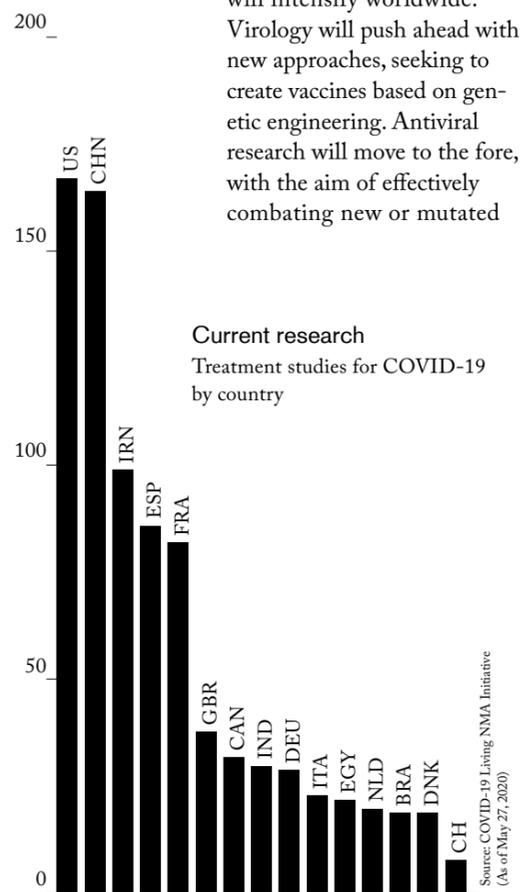
change in the outlook for equities and other investments?

It seems a bit early to say. Equities are expected to remain the asset class that benefits most from growth but also suffers most from crises or setbacks; that is their nature. The opposite holds true for government bonds. Because they promise fixed returns independent of economic developments, their prices usually rise in times of crisis. However, interest rates have been in negative territory for some time in Switzerland and much of Europe. In other words, investors have been effectively paying a sort of insurance premium for the security that this asset class offers. Gold has outgained government bonds under the crisis. But because, unlike bonds, nobody guarantees a return on gold, the price of gold is likely to remain highly volatile. Real estate investors are currently benefitting from generally stable rents, although real estate prices are susceptible to economic cycles and can be negatively impacted by recession.

What can we learn from all of this? What Milton Friedman once said about the economy also applies to investments: "There ain't no such thing as a free lunch."

# 10

## Will this be a victory or defeat for pharmacology?



Short answer: It is possible to fight a pandemic and keep healthcare costs under control.

COVID-19 has once again proven that nothing is more important than health. And governments are prepared to take bold measures, even bringing the economy to a near standstill, in order to maintain their citizens' health. Exponentially rising infection rates, hospitals filled to capacity and shortages of ventilators, disinfectants and protective masks have caused alarm among citizens. The general public has received an unprecedented level of information about virology and epidemiology.

Pharmacological research will intensify worldwide. Virology will push ahead with new approaches, seeking to create vaccines based on genetic engineering. Antiviral research will move to the fore, with the aim of effectively combating new or mutated

viruses. However, it will likely take too long for vaccines or palliative drugs to become widely available enough to bring a rapid end to the current pandemic. As long as no such solution is available, the key to returning, at least partially, to normalcy in our social and economic lives will lie elsewhere.

In addition to hygiene guidelines, implementing widely accessible, simple tests and contact tracing will play a central role in identifying virus outbreaks and preventing their spread. Experience in South Korea and Taiwan has shown that such measures can be very effective in fighting the virus and are not particularly expensive. Fighting a pandemic and keeping healthcare costs under control are certainly compatible. Greater use of communication technologies in the healthcare sector could also help reduce costs, potentially replacing unnecessary doctor visits with telemedicine solutions, which address the growing need for information and concurrent fear of in-person doctor visits due to the pandemic.



Short answer: Switzerland is perfectly suited for teleworking.

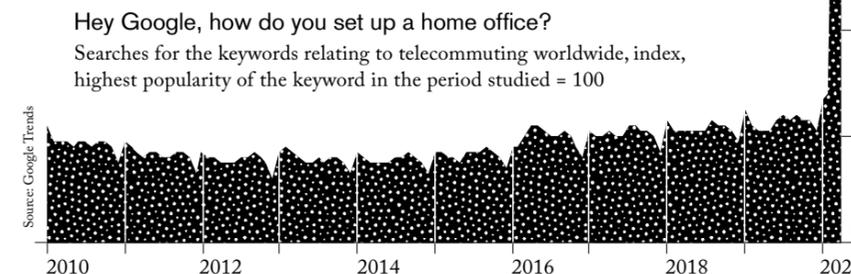
The pandemic has forced many workers and employers to switch to working from home, even those who had previously resisted working remotely. Knowing that it can actually work will further strengthen the trend toward flexible workplaces. Even before the pandemic, around one-third of employees in Switzerland worked from home at least occasionally. Surveys suggest that this share has grown substantially since the outbreak of the pandemic. Now, 33 percent work exclusively from home, with another 19 percent working occasionally from home. Switzerland's economic structure, which includes a large share of sectors and jobs in which daily work tasks can be done on a laptop, makes the shift easier. Switzerland is actually one of the countries with the highest share of jobs that can be done from home (45 percent).

These developments suggest that the trend toward increasing self-employment and the gig economy will continue. At the same time, the loss of income suffered by workers in these fields during the crisis – from Uber drivers to web designers – also highlights the need for better solutions. Improved labor market regulation and insurance options are needed for these groups to stop them falling through the holes in the social safety net and to enable them to save enough for retirement.

The necessary communication infrastructure is being expanded further, and companies that offer it stand to gain from the crisis. On the flip side, demand for office space and fixed workspaces will stagnate or even decline. Changes in the way we work will also likely call into question the spatial distribution of economic activity and thus influence where people choose to live as well as local public transit services. Thus, it is conceivable that the previous trend toward more centralized working will give way to more decentralization.

# 11

## A new world of work?





# 12

## Is tourism dead ?

Short answer: No. But we will be rediscovering places closer to home. Domestic travel is back in fashion: The combination of risk aversion and government precautions will continue to dampen international and even some domestic travel, at least until a vaccine or effective drugs against COVID-19 are found. In March 2020,

international tourism ground to a virtual halt due to travel restrictions, and many experts do not expect the industry to recover before 2021. Cruise ships have stopped operating in many countries and are no longer permitted to dock at many ports. Business travel was replaced by telephone and video conferencing overnight, and improvements in digital communications should make it clear that a large share of air travel can be avoided without significant business impact.

In Switzerland, the closure of winter tourism probably resulted in revenue declines of more than 90 percent in some cases. For the summer, domestic guests can be expected to be even more loyal

to their home country than they already are – the Swiss themselves account for around 52 percent of overnight stays in Switzerland. Swiss hiking trails are likely to get a bit crowded this summer. —

The following members of the Credit Suisse Research team contributed to this report: Oliver Adler, Chief Economist, Sara Carnazzi Weber, Head of Policy & Thematic Economics, and Franziska Fischer, Economist, Swiss Macro Economics & Strategy.

Photo: Max Miechowski



“I’M GOING TO BE AN **ASTROPHYSICIST.**”

Júlia, 17, São Luis, Brazil

Photo: Plan International Registered Charity Number 276035

### EVERY GIRL SHOULD BE ABLE TO **SHOOT FOR THE STARS**

Through our Financial Education for Girls program, Credit Suisse and Plan International are helping girls around the world build better futures for themselves and turn their goals into reality.

For more information, visit [plan-uk.org](http://plan-uk.org)



# “We were well prepared for this crisis”

Thomas Gottstein talks about his first months as CEO of Credit Suisse, the impacts of the pandemic on the global economy and the strengths of traditional banking in times of crisis.

Interview Brian Blackstone

Mr. Gottstein, you were appointed CEO of Credit Suisse Group in February. Shortly afterwards, the COVID-19 pandemic shook the world. You had to get to grips with your new role and, at the same time, steer the bank through the worst economic crisis in decades. How did you deal with this situation?

First, I want to say that I am very proud of our 48,500 employees around the world for the flexibility and resilience they have shown. Nobody wants a crisis, especially one that affects the health and well-being of billions of people. However, when one occurs, we have to pull together to overcome it and we need to be there for our clients. And given the important role we play as a lender in the real economy, we need to provide a foundation for businesses to recover as quickly as possible. We were well prepared for this crisis since we had completed our deep strategic restructuring at the end of 2018. We have grown our wealth management business, strengthened our capital base and reduced risks.

What was your experience of the crisis?

Our teams worked together intensively to offer clients the best possible support when navigating extremely volatile markets. I am grateful to our clients for the trust they have



Thomas P. Gottstein (56) is CEO of Credit Suisse Group. Over the last 20 years, he has held various positions at the bank, including serving as CEO of Credit Suisse (Switzerland) Ltd., Head of Premium Clients Switzerland, Head of Investment Banking Switzerland and Co-Head of Equity Capital Markets EMEA. Born in Rüschlikon, Canton of Zurich, he holds a Doctorate in Finance and Accounting from the University of Zurich. He lives with his wife and two children in the Zurich region.



“The pandemic has accelerated changes,” says Thomas Gottstein about the financial center. The picture shows a bird’s eye view of Zurich’s Paradeplatz, with the Credit Suisse building at the bottom.

placed in us. I am now looking forward to having more in-person contact with my colleagues and clients, subject to health authority guidelines.

Banks were often viewed as being the root cause of the global financial crisis but they are now seen in a more positive light again. Does this come as a relief? Banks suffered a black eye in the 2008 financial crisis. Risks were taken which, in hindsight, proved to be excessive. Since then, we have reduced risk on our balance sheets and increased our capital. This has given us the strength to respond constructively to the current crisis. It is good to see that we can continue to fulfill our core function as a bank in a crisis, providing clients with liquidity in the form of loans that many of them urgently needed. Credit Suisse’s role in helping develop Switzerland’s bridging loan program for small and medium-sized businesses showed that our industry and teams were able to function during the crisis. One reason for the success of the program is that the loans were distributed by banks and were thus based on existing client relationships. The Swiss program plays to the strengths of our economy and banking system. In a global context, we were also able to support our clients, providing innovative companies with the equity they need to grow and expand.

Will the pandemic permanently alter the banking landscape?

We see the pandemic accelerating changes that were previously underway. The crisis highlights the essential role that banks like Credit Suisse play in our national

and global economies. There had been a certain skepticism towards banks in the last few years. We have been forcefully reminded during this crisis of why we need healthy, established and well-regulated financial institutions. We provide security, credit and effective solutions for the real economy. We know our clients. We are also able to work with politicians in times of crisis to achieve the best results for the economy and society. Of course, advances in financial technology and artificial intelligence will continue, if not accelerate. At Credit Suisse, we are constantly innovating to better serve our clients, utilizing technology to deliver solutions. But this cannot be solely digital. We deliver “high tech” digital offerings plus “high touch” advice and solutions to meet the needs of our clients.

How is technology affecting the workplace?

More than 90% of our employees have been able to work from home and, fortunately, there have been hardly any problems in terms of daily operations or IT. We are learning lessons for the future from this experience. For example, initial estimates suggest that even after the crisis, our employees will spend around 10% to 20% of their working hours in a home office. We will probably also travel less, as employees and clients have rapidly grown accustomed to videoconferencing. However, I do not want to overemphasize the benefits of this virtual world. I run a global bank, and face-to-face interactions with clients and colleagues are very important. At the end of May, I had my first in-person client meeting since the pandemic with the CEO of a major Swiss corporation. This was a positive experience for both of us.

What are some of COVID-19’s other impacts on Credit Suisse?

The use of online banking has increased markedly, especially in the area of payment transactions. We have also seen a further increase in the trend towards contactless payments. The adoption of digital solutions is reshaping the way we interact with our clients in the same way that the rollout of ATMs did decades ago.

How do you see the global economy evolving?

I think we will probably see a somewhat “tilted” V-shaped recovery. While the crisis has spurred innovation, it will likely take time for the second key driver of economic growth, confidence, to return to previous levels. Companies may hold back on investment and hiring for some time, not least to rebuild their financial buffers. But once they have regained confidence, they are more likely to spend and invest. Ultimately, the economic recovery will be driven by new products and services. There will be realignment in areas like education, healthcare and technology. Our purpose is to support that process.

Do you worry about all the newly created public debt?

The measures now being taken around the world by governments and central banks are necessary. Switzerland and some other industrialized nations entered this crisis with low levels of public debt, giving them room for maneuver. But in many countries, debt levels were too high to begin with. However, that does not necessarily mean that we will face a debt crisis. If governments develop credible programs to limit their future expenditure and if they invest funds in growth-enhancing areas, interest rates should remain under control and debt should be sustainable.

Is there a danger that the crisis will reverse globalization?

That cannot be allowed to happen. Let us not forget that globalization has helped lift hundreds of millions of people out of poverty. And for globally active companies

such as Credit Suisse, having unrestricted access to markets and a qualified workforce is also essential. The focus must now be on preserving everything that has been achieved through the liberalized movement of trade, capital and people against protectionist and isolationist tendencies. Personally, I have spent a significant portion of my career working outside Switzerland and that has been a defining part of my professional life.

You are an avid golfer and were even on the Swiss national team. Are there any lessons from golf that you apply to banking?

Well, I have not been playing much recently. However, it is great that we can resume some sports and activities now that certain restrictions have been eased in Switzerland. The biggest mistake for golfers is when they make things too complicated. It is actually quite simple. You have to hit the fairways and greens, play to your own strengths, and stay within the boundaries. And when you have a chance to be bold, take it. I try to apply that philosophy to my work as well. ■

When you have a chance  
to be bold,  
take it.

Eleven sectors and areas that are helping people during and after the coronavirus crisis, potentially defining our lives over the long term.

Text Helene Laube Illustrations Studio Takeuma

# A whole new world



## E-accelerator



**MOBILITY** Empty streets, empty buses, empty airports – the past few months have provided a look at a future of mobility that may be better for both the environment and for people. It's now possible to picture a life with fewer cars, especially in cities where traffic noise, emissions and accidents have fallen and the quality of life has risen. Working from home reduces the number of people commuting, and video conferences render many business trips unnecessary. Measures such as temporary bike lanes in Bogotá and Berlin should become permanent, according to urban planners. Subsidies now spent on cars can be redirected toward expanding public transportation and networks of bike lanes. However, cars will likely maintain their appeal as a means to get from A to B while minimizing exposure to viruses. Porsche CEO Oliver Blume is convinced there will be a significant push toward e-mobility (see the Credit Suisse Progress Barometer in Bulletin 1/2020).

## Meals on wings

**FOOD DELIVERY SERVICES** With a market share of less than 3 percent, online food delivery services in Switzerland have long remained in the shadows as have their counterparts in Germany, the US and elsewhere. But the pandemic has changed that. Food delivery companies are now experiencing a surge in demand, and the sector hopes the online business will sustain this growth in the long term. Although US giant Amazon dominates nearly every area of retail, including food delivery, purely online delivery services such as Smood (Switzerland), Instacart (US) and Getnow (Germany), as well as major retailers, are now seeing explosive growth in the number of new customers. Deliveries of food by drone and driverless delivery vehicles – previously used in pilot projects run by companies including Amazon and Nuro – are quickly becoming reality. Not least because this type of delivery reduces the risk of virus transmission.

## Print anything



**3D PRINTING** Globally, companies that make products using additive manufacturing generated nearly 12 billion Swiss francs in 2019, and the market is set to grow by 25 percent annually. And that was the forecast before the crisis. Nowadays, 3D printing can be used to produce urgently needed equipment in a matter of days, such as face masks and components for ventilators, whether by industrial powerhouses like automobile makers or on a smaller scale by designers and hobbyists. The process has distinct advantages, as demonstrated in recent months, in that it enables production to shift away from large factories and move closer to customers, making it possible to respond quickly to demand. For example, a French hospital ordered 60 printers from US manufacturer Stratasys to enable it to produce PPE and other medical equipment on-site.

**CLOUD COMPUTING** Circumstances in recent months have accelerated the digitalization of work, corporate life and the private sphere. This is giving the role of cloud services, which had already been strong, a further boost – a trend that is unlikely to end any time soon. Companies are renting external infrastructure, such as computing capacity, storage space and network hardware, from the likes of Amazon (Amazon Web Services), Microsoft and Google. Such infrastructure is used for a wide variety of purposes, including databases, telework, distance learning, research collaboration, shopping, streaming entertainment and video communication. More than 70 percent of all IT services are now provided via the cloud. This trend has opened new doors to corporate networks for hackers, and cloud-based security solutions, such as Zscaler and CrowdStrike, are in demand as well.

## From the clouds



## Contactless doctor visits



**TELEMEDICINE** The role of telemedicine is being expanded around the world so as to avoid overloading the health system while also limiting the spread of the virus from direct contact in private practices and hospitals. Demand is exploding for video consultations and other medical services that can be accessed online. In the case of Alodokter, one of the largest Indonesian telemedicine providers, the number of daily consultations has almost doubled to 10,000, according to the company. The situation is similar for e-health providers such as AliHealth in China and RecoMed in South Africa. Telemedicine consultations have been booming in Switzerland as well. According to industry observers, demand will continue even after the pandemic has leveled off. This is because telemedicine spreads fewer germs, allows doctors to spend more time taking care of emergencies and seriously ill patients, and enables them to provide care to people in underserved or remote areas. It also reduces costs.

## Learning at the kitchen table

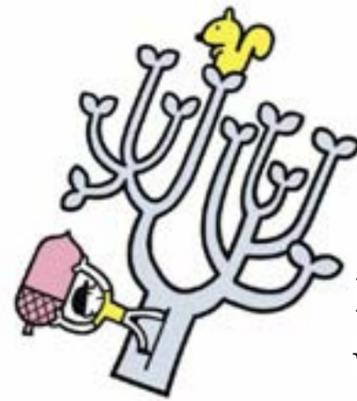


**EDUCATION** Education is experimenting with hundreds of communications and EdTech offerings of varying quality. Students around the world are logging into class via Microsoft Teams and Zoom as well as distance-learning applications such as Edmodo and DingTalk. Schools are now conducting virtual instructor-centered classes via video conference, instructors and students hold discussions by chat, group work is conducted in smaller virtual classrooms and course material is made available on online platforms. There will likely be some combination of in-person and distance learning after the lockdown has ended. Many educators have realized that digital teaching methods can increase students' motivation and learning success.



## Stream-agers

**ENTERTAINMENT** The wealth of cultural offerings is boundless. Pop stars hold living room concerts on Instagram, clubs broadcast live DJ sets, exhibitions and film festivals move online and the Houseparty app can be used to host a virtual party. Everything is being streamed. Even after the lockdown has ended and people can go out again, streaming services, pay TV channels, and video game and e-sport platforms continue to expand their offerings. Culture and the media have been trending toward digital distribution and business models for some time, and this will continue. Analog offerings are increasingly being combined with digital offerings.



## Knowing what, where and how

**LOGISTICS** The pandemic has shown just how fragile the system of global and local value-creation and supply chains is. Supplies have cratered as demand skyrockets, and the virus has paralyzed production and logistics – affecting nearly every industry, factory, hospital and retailer. The bottlenecks have clearly demonstrated just how important a digitalization strategy, including real-time information, is for many transportation and logistics service providers. Artificial intelligence, machine learning and cloud-based applications are all part of digital freight management, which ensures the reliable and predictable delivery of goods. Suppliers of these new tools include startups like California's Flexport, whose platform connects shippers, forwarding agents and distribution centers and improves the visibility and monitoring of their supply chains. Hamburg-based startup Evertracker uses artificial intelligence to automate processes along the value chain, making it possible to control these processes in a forward-looking manner.

**ROBOTICS** As a rule, economic crises lead to more automation and fewer jobs. This trend may be especially strong now, as the systems, software and hardware needed for a major shift toward automation in offices, factories, warehouses, robotic vehicles and the healthcare sector are already available. Robots also play an important role in fighting viruses, especially when it comes to disinfecting surfaces in hospitals. The devices produced by Denmark's UVD Robots move autonomously through operating and patient rooms, using ultraviolet light to combat hospital infections. Demand for the disinfecting robots has spiked around the world, and someday they may be rolling through other venues as well, including airports, offices, schools, shops and factories.



## The robo-janitor



## Living room, Inc.

**WORKING FROM HOME/TELEWORK** Working remotely has become widespread, and experience shows that most people can be productive from home. Startups such as Infomaniak in Geneva, Mavenlink, Slack and Zoom as well as tech companies like Microsoft (Skype, Teams) and Cisco (WebEx) are expanding telework options with hundreds of products. These include messaging, chat, video conferences, collaboration tools, project management and software that can be used to handle files digitally and in a legally compliant manner (DocuSign). Many employees will find a whole new world when they return to the office, one with more automation and more voice control – so that it will not be necessary to touch as many surfaces. Cleaning and ventilation systems that help to prevent sources of contamination and the spread of viruses, similar to those found in medical settings, may also be more in demand.



## The antivirus

**BIOTECH/PHARMA** When and how the restrictions on public life will be fully relaxed depends mainly on when reliable tests, vaccines and treatments are available. Companies and research institutions, including BioNTech and CureVac in Germany, Moderna in the US and CanSino Biologics in China, are conducting vaccine research in numerous projects around the world. A large number of these projects will fail during clinical trials. And even if the development of a new vaccine is being pushed ahead with unprecedented speed, an effective, large-scale vaccine for millions of people will probably not be available until spring 2021 at the earliest. Immunologist Martin Bachmann at the University of Bern has a very ambitious timeline: He hopes to produce millions of doses of a vaccine for the entire Swiss population by this fall. And research on medications is being carried out as well. Remdesivir, produced by Gilead Sciences, has shown some initial positive results, and Molecular Partners, a biotech company in Schlieren (see Bulletin 3/2018), plans to use its medication in clinical studies in the second half of the year.



Adream teaches millions of underprivileged Chinese schoolchildren such subjects as self-awareness, teamwork and respect for the environment. Founder Jiangxue Pan believes that the novel coronavirus pandemic will lead to positive changes in the long run.

Text Simon Brunner

# The education revolutionary



Jiangxue Pan was a 30-year-old investment banker who had just left New York City for Washington, D.C., when two airplanes crashed into the World Trade Center. The towers collapsed, reducing the hotel where she had stayed only days before to rubble. After this narrow escape from death, Jiangxue Pan fundamentally changed her life. “I gave up the high-flying job,” she says, “converted to Buddhism and became a career philanthropist.”

Pan founded Adream in 2007 with the goal of offering holistic education to children in remote areas of China. The organization now operates 3,820 Adream Centers – most of them in the poorer interior provinces – teaching 4.15 million children and has generated 967 million yuan (about 130 million Swiss francs) in donations and financial earnings over the last 13 years. Forbes magazine has repeatedly named Adream China’s most transparent foundation.

The Adream Centers provide books, computers and other multimedia resources. The instruction, which complements the official curriculum, is aimed at kids in first through ninth grades. Subjects covered at Adream include self-awareness, teamwork, respect for nature, art, drama and performance, and computer skills. “We want every child who takes our courses to learn how to think critically, foster empathy and a love for others, and strive for a fulfilling future – despite whatever challenges they may face,” says Jiangxue Pan. “Education brings insight – we want to nurture curiosity and friendliness in every child.”

**EMOTIONAL ORPHANS** Jiangxue Pan talks about how the dominant educational paradigm in China has been challenged in recent years. “Our teachers have become aware of the limits of an education based solely on transferring knowledge,” she says. “The focus is shifting to developing well-rounded people, so that kids can grow in whatever direction their potential might lie.”

Adream pays special heed to girls and boys whom Pan calls “emotional orphans” – children whose parents have moved to the city for work, leaving them behind in the country to be raised by relatives. Many of these children experience very little emotional warmth and frequently develop mental issues. Pan says there are millions of these children, and “we can really help them with our empathetic approach.”

During the COVID-19 pandemic, Adream has produced a daily podcast to help families through the crisis. It covers such topics as verifying information, constructive family get-togethers and what to do with new year’s pocket money. The podcast also provides guidance on recording family histories, sports tips and hygiene instructions. It appeals to listeners not to discriminate against people from Wuhan, where the outbreak first began. “We had some work to do in providing information,” says Pan.

The pandemic has led to a major push toward digitalization in China as well. “The podcast is helping us reach many new families in especially remote areas,”

Above: Jiangxue Pan founded Adream in 2007.  
Right: 4.15 million children attend classes at 3,820 Adream Centers.

says Pan. She is convinced that lasting change is coming. After the pandemic is over, these families will draw on the foundation's services and use the digital skills they've acquired.

As an additional measure, Adream has put together protection kits for schools since February 2020, which include forehead thermometers, hand sanitizers, other disinfectants and a health plan. "These items are crucial to keeping schools running," says Pan, "and we got them into schools at a time when supply was running acutely short."

Adream would like to bring about longer-term behavioral changes in hygiene standards, independent of the current epidemic. A greater awareness of cleanliness issues should help prevent the spread of diseases in general.

**PIONEERING WORK** Pan sees Adream as a trailblazer for modern Chinese foundations: "Transparency has been important to us from the beginning. We publish our annual reports, just as if we were a publicly traded company." Philanthropy is relatively new in China. Pan considers the Great Sichuan earthquake in 2008 to be the first event that inspired widespread

donations, and the charity sector has been booming since then. She describes the subsequent years as a "golden decade" for philanthropy in China. But the potential has by no means been exhausted: "In the US, charitable donations amount to 2.1 percent of the GDP, but here that figure is only 0.11 percent."

Urs Buchmann, Vice-Chairman Greater China and Head of the Credit Suisse Charity Committee in China, has supported Jiangxue Pan since the early days of

**"Transparency has been important to us from the beginning."**

Jiangxue Pan



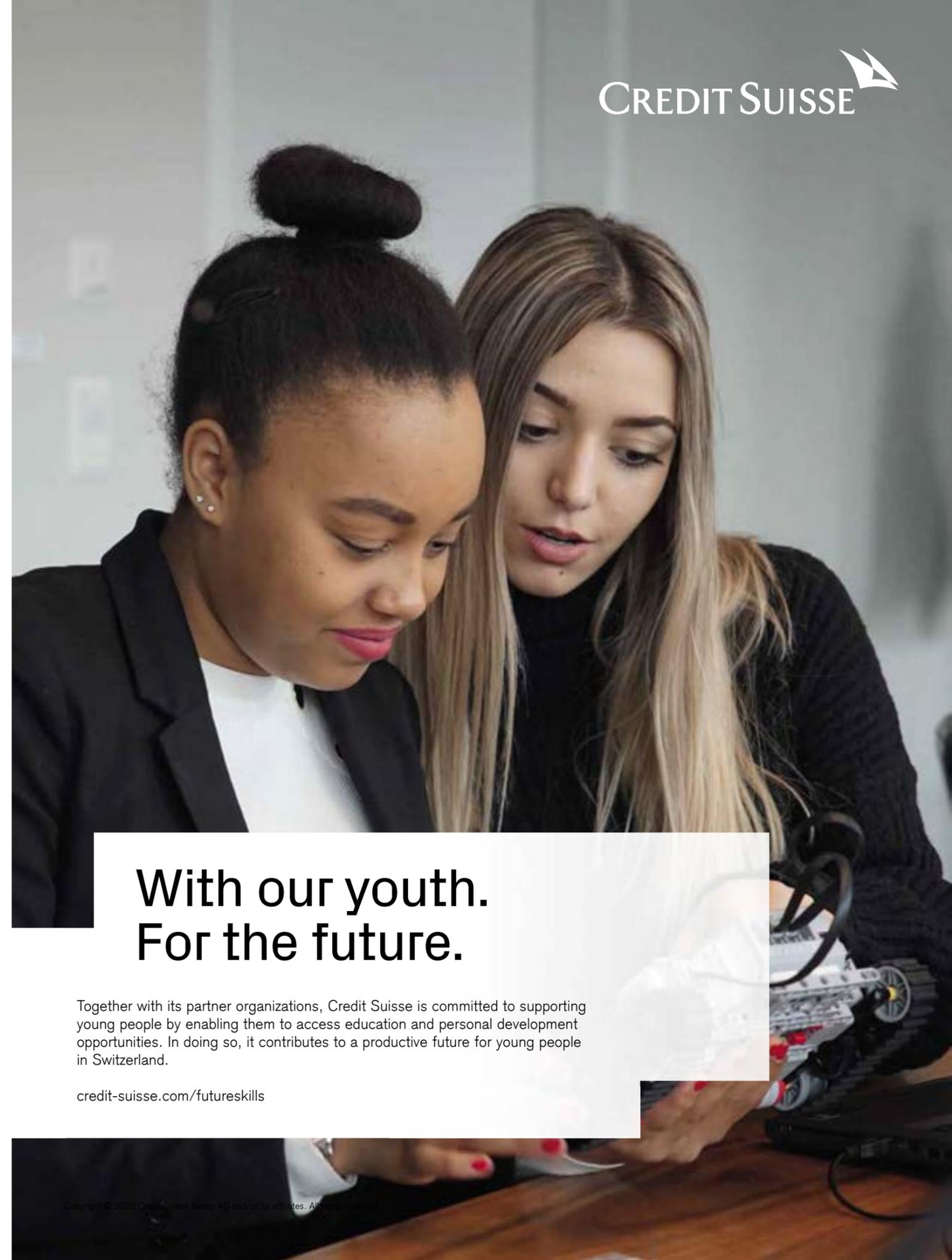
Adream's founder barely escaped with her life on September 11, 2001. Pan says, "Many people will make changes after the epidemic, just as I did back then."

Adream. "Private initiatives to promote general welfare are a real novelty," the philanthropy expert notes. "It is a gratifying development that successful entrepreneurs and leading decision-makers are increasingly recognizing the value of philanthropic activity. They consider it to be the most meaningful aspect of a balanced and harmonic existence."

Urs Buchmann has been living in Greater China since 1987. "Adream aligns exactly with the objectives pursued by the philanthropic activities of Credit Suisse APAC [*Asia Pacific, ed. note*]," he says. Like many of his colleagues, he volunteers with Adream. A lawyer and trained pianist from Zurich, his pet passion is teaching music.

**"I'VE FOUND MY PURPOSE"** Buchmann highlights Adream's modern approach, which emphasizes transferring knowledge in a fun and interactive way. "The goal is to promote the students' social skills and creativity, aspects that cannot be underestimated in Chinese society, which has so many one-child families." Urs Buchmann also points out that the foundation "works in close cooperation with government organizations and officials," to further improve the education system. "Jiangxue Pan is doing an outstanding job, and we greatly value our interaction with her."

Returning to Adream's founder: Will the novel coronavirus epidemic influence her life the way 9/11 did, when she barely escaped death and then radically altered her life? "No," says Pan, now 49 years old. "I've found my purpose. But I think that many people will make changes after the epidemic, just as I did back then. And I'll be happy to support them in that." ■



**With our youth.  
For the future.**

Together with its partner organizations, Credit Suisse is committed to supporting young people by enabling them to access education and personal development opportunities. In doing so, it contributes to a productive future for young people in Switzerland.

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“

We need to make  
protection of the  
environment a good  
business opportunity”



Steel pompano in the Revillagigedo Archipelago, Mexico,  
the largest marine protected area in North America.

Square kilometer by square kilometer, Ocean Unite is fighting to save our oceans. Two of the founders explain why there is no life on Earth without a healthy ocean and how market-based instruments can help.

Interview Marisa Drew, CEO Impact Advisory and Finance, Credit Suisse



**Karen Sack (51)** is president and CEO of the Washington, D.C.-based ocean advocacy group Ocean Unite, which she founded in 2015 together with José María Figueres and British entrepreneur Sir Richard Branson. Before that, the South Africa-born ocean champion was the senior director for International Oceans at the Pew Charitable Trusts, a US think-tank campaigning for conservation, and the head of Greenpeace International's political and business unit.



**José María Figueres (65)** is chairman of Ocean Unite. In 1994, at the age of 39, the son of three-time Costa Rican President José Figueres Ferrer was elected President of the Central American country himself. He is a trustee of the Rocky Mountain Institute, an independent sustainability research organization in Colorado.

Ms. Sack, can you share your views on the impacts of the coronavirus crisis on conservation efforts?  
**Karen Sack (KS)** It's too soon to even envisage the impact that the coronavirus crisis will have on national and global efforts to curb climate change, meet the UN's Sustainable Development Goals or boost ocean health. There are reports that the pandemic – temporarily – reduced China's carbon emissions by a quarter and is set to cause the largest ever annual fall in global emissions. But these trends are unlikely to be lasting, and in fact we are on track for 2020 to be the warmest year on record despite the virus-induced emissions "hiatus." Others point out that the pandemic is more likely to have a negative impact on the climate emergency by draining money and political will away from climate action. Also, so much conservation work involves people physically getting together. All of that has ground to a halt.

A number of important intergovernmental conferences on marine conservation and climate change were scheduled to take place this year. What is left of the agenda?  
**KS** The "2020 ocean super year" we have all been working towards isn't going to happen. The pandemic means major disruption to ocean-related negotiations and conferences. Among the postponed events are the final UN high seas treaty negotiating session, which we call the "Paris treaty for the ocean" as it will

establish protection for marine life in international waters. The Convention on Biological Diversity meeting planned for October in China also had to be postponed. It was billed as the most important biodiversity meeting in a decade and was set to agree on global biodiversity protection targets for the next ten years on land and at sea. And the UN climate conference, which was supposed to be held in November in Glasgow and raise ambition and action to address the climate emergency, was moved to next year. The big question is whether the wave of hope that had been created in advance of this year will continue to build or turn into more of a ripple.

As you point out, there is some ecological upside to the pandemic.  
**KS** Yes, we have been given the gift of time. Time to recognize how much harm we have been doing to our planet, and to literally see skies clearing and hear birds chirping more loudly. Time, also, to recognize how many of the threats surfaced by the pandemic are harbingers of the threats that the climate and biodiversity crises will bring if we don't take action to address them now.

What are you hoping our species will do with this gift of time?  
**José María Figueres (JMF)** We have been given time to recognize the need to recover differently, not build back in the same way. This is an opportunity to secure



Whitetip reef shark near the Revillagigedo Archipelago, Mexico. Ocean Unite was involved in establishing the marine reserve.



Adelie penguins in Antarctica. Massive expansion of the wildlife reserve is planned.



Pygmy seahorse camouflaged in front of coral in the Great Barrier Reef, Australia. By 2030, 30 percent of the world's oceans are to be comprehensively protected.

Photos: private archive(2); Iain Javier Sandoval/VWPics/ Redux/ Jaif; Mark Jones/Minden/Naturepl.com; Gary Bell/Oceanwide/Minden/Naturepl.com

stronger measures for planetary health that also make sure that our societies, economies and communities are more resilient.

Do you think the world will care more or less about environmental and climate issues after all this?

**JMF** That remains to be seen. But there is no “either/or” between planetary health and human health. We must fight for both, and to achieve both we need science and solidarity. Humanity is placing too many pressures on the natural world. Seventy-five percent of all emerging infectious diseases are zoonotic, meaning they spread from animals to people.

What drives this spillover from animals to people?

**JMF** Our destruction of biodiversity and habitats creates the conditions for these new viruses and diseases to proliferate. Deforestation is causing animals to be forced from their natural habitats and interact more with humans, planting the seeds for future potential pandemics. Our health depends on the climate and the organisms we share the planet with. As leaders begin to think about a post-coronavirus world, we all need to make sure that the opportunity to move forward means prioritizing investments that quickly drive us forward to a net zero-carbon world.

You two, together with Sir Richard Branson, established Ocean Unite (OU) in 2015. You are pushing the target of protecting at least 30 percent of the ocean by 2030. How close are you to that goal?

**KS** What is exciting is that, since we started working on this, the ocean com-

munity has united around this “30 by 30” goal, and we are seeing accelerating action on the water. About 70 percent of our earth’s surface is ocean, but only 2.5 percent is strongly protected from human development – compared to about 15 percent of the world’s land. A further three percent of the ocean has been proposed as marine protected areas (MPAs). There is still a lot of work to do to meet the UN’s Sustainable Development Goal of protecting 10 percent of the ocean by 2020, let alone to achieve the scientifically agreed target of highly protecting 30 percent by 2030 – a critical benchmark to regenerate ocean life and rebuild its resilience – but momentum is growing.

How confident, then, are you that you will reach 30 percent by 2030?

**JMF** We are optimistic, because the area of ocean that is being protected, while still small, has grown exponentially over the past decade. OU is working to build support for our science-backed goal and bring it into the mainstream of environmental debates.

What are some of the regions where OU helped protect the ocean?

**KS** OU is proud to have played a part in protecting more than five million square kilometers of ocean since 2015 and raising national and global ambitions surrounding the creation of large MPAs. We worked behind the scenes to press for the designation of Easter Island as a marine park in Chile, an area of over 500,000 square kilometers. We did similar work with key partners on the designation of the 150,000 square-kilometer Revillagigedo Archipelago marine reserve in Mexico, creating the largest no-fishing reserve in

North America. In South Africa, we helped increase the share of MPAs from 0.4 percent to 5 percent of its waters – an increase of more than 1,000 percent. Piece by piece, we are getting closer to our goal.

What about Antarctica? Last year, an EU effort to create a giant marine sanctuary in the eastern Southern Ocean failed again. **KS** Our sights are always set on Antarctica. The agreement to establish the over 1.5 million-square-kilometer Ross Sea MPA in 2016 was a moment of huge celebration and one we were very pleased to play a role in. Now OU and partners are campaigning to expand this protection to more than 7 million square kilometers of the Southern Ocean, and 2020 could be the year this happens.

What effect does climate change have on ocean ecologies?

**JMF** The ocean and our climate are critically intertwined Earth systems, although most people do not think about it this way. Because of the close links between the two, the ocean has borne the brunt of the climate crisis. As a gigantic natural carbon sink, the ocean has already absorbed about one-third of the additional carbon dioxide we have put into the air. It has also absorbed about 90 percent of the excess heat put into the atmosphere by carbon emissions. All of this comes at a significant cost to ocean health and planetary resilience. If these impacts are allowed to continue unabated, dangerous tipping points will be reached, with serious consequences for sea level rise, ocean warming, acidification, deoxygenation and accelerating destruction of fish populations and coastal habitats.

Mr. Figueres, you support market-based solutions to climate change.

**JMF** When it comes to the environment, I confess to being a tree-hugger. Yet I recognize that, unless we make protection of the environment a good business opportunity, we won’t attract the capital or the entrepreneurial talent to reinvent the global economy in such a way that we decouple development and well-being from carbon emissions. We need to continue to increase well-being, especially for those living in poverty, and do so while lowering carbon emissions to stem the negative effects of climate change.

Are such market-based instruments applicable to the ocean?

**JMF** When it comes to the ocean, there is something more important than economic value. The ocean is the most important ecosystem in our lives. It produces 50 percent of the oxygen on Earth, or in other words, it provides us with every second breath. How much should we pay for the oxygen that enables life on our planet? And I could go on with the hundreds of millions of people that obtain their principal source of protein from fish, and more. The point is we need to take care of our ocean because of its intrinsic value – without a healthy ocean there is no life on Earth, full stop.

OU is a founding partner of the Ocean Risk and Resilience Action Alliance (ORRAA), which is designed to drive investment into “coastal natural capital.” How attractive is that to investors?

**KS** Investing in nature offers extraordinary returns and is cost-effective. It has been incredibly exciting to partner with AXA, an insurance company, to

develop ORRAA. This pioneering multi-sector collaboration brings together governments, insurers, banks and civil society organizations to build resilience to change through developing groundbreaking finance products that incentivize blended finance and private sector investment into coastal natural capital. Our goal by 2030 is to create a new marketplace by driving 500 million US dollars of investment into innovative and scalable finance products that increase coastal resilience and reduce ocean risk for the most vulnerable communities around the world. Increasing ocean risk hazards like extreme storm events, rising sea levels, habitat degradation and pollution require action, particularly for the most exposed communities, including women and girls in developing countries and small island states. By working together, we can reduce ocean risk and build resilience to change.

Mr. Figueres, your sister Christiana Figueres is the former UN climate chief and an architect of the Paris Climate Agreement. Why are both of you so strongly committed to the environment?

**JMF** I’m very proud of Christiana. She pulled off nothing short of a miracle by getting the world to adopt a climate agreement at COP21. I suppose we both embraced this cause for a variety of reasons. There is our upbringing on the family farm “La Lucha” (“The Struggle”), as well as our parents’ teachings and the fact that, as president of Costa Rica, my father created the first national park. Today, our parks cover 33 percent of our territory and are the “heart” of our eco-tourism industry. While we have worked together over many years on these important issues, we have come to the conclusion that, to cover

more ground, one of us should continue to focus on climate change and the other one on the ocean. In any case, both are two sides of the same coin – you cannot fix climate change without addressing the health of our ocean and the reverse is also true. I guess you could call it “divide and conquer.” *(smiles)*

Ms. Sack, you grew up in South Africa. What is your relationship with the ocean?

**KS** I was incredibly lucky to spend almost every summer holiday at the beach. The ocean is life. It is joy. The ocean has so many facets that feed and nourish us. And, as ever, the ocean is our ally. If we care for it, it will care for us. But it can also bring astonishing harm and destruction if we take it for granted. We need to invest in the ocean, invest in nature, because nature provides an extraordinary return on investment. It is the most incredible entrepreneur and innovator. ■

Without a healthy ocean,  
there is no life  
on Earth,  
full stop.



Built for 800 inmates, Quezon City prison in Manila houses 3,800 prisoners.

# Social distancing as a privilege

How can prisoners in a notoriously overcrowded prison protect themselves against the transmission of a virus? The International Committee of the Red Cross (ICRC) in the Philippines set up a quarantine station for inmates with COVID-19 in three days.

Text Simon Brunner

Germany's "Stern" magazine calls the prison in Quezon City the "forecourt of hell." Originally built for 800 inmates, the prison already held 3,800 people in 2016 (more recent figures are not available). Up to 130 men have to share a toilet, according to the German weekly magazine, and the hygiene conditions are "catastrophic." The men sleep in rotation, making use of every bit of available space by hanging home-made hammocks one above the other.

This was the situation before the SARS-CoV-2 virus spread around the world. Quezon City prison is located in a densely populated area, less than 20 minutes from the center of Manila. So it was only a matter of time before the virus spread to the prison. At the beginning of April the first inmates and employees tested positive.

But how do you protect yourself in a place where "the slightest movement means you touch someone or something," as one prisoner described the situation to news agency AFP? "Social distancing is a privilege," says Boris Michel, head of the ICRC delegation to the Philippines and a lawyer from French-speaking Switzerland. "This privilege is not available to people behind bars."

**PRISON RIOTS IN ITALY** The hygiene conditions in Quezon City prison are especially precarious, but the fight against COVID-19 is an ongoing problem in many correctional facilities, even in industrialized countries. In one prison in Ohio, over 70 percent of inmates have tested positive. There, too, it is a case of social distancing being impossible in prison.

Back in March, Michelle Bachelet, the UN High Commissioner for Human Rights, made an urgent appeal to governments around the world, calling for the

number of people in prison to be reduced wherever possible. According to the UN Standard Minimum Rules for the Treatment of Prisoners (also known as the Mandela Rules) adopted in 2015, countries have a special obligation to protect the physical and mental health and well-being of prisoners. However, it's not only logistically difficult to implement appropriate measures, but the inmates themselves often put up resistance as well. In Italy and Luxembourg, for example, violent riots broke out after the prison authorities restricted visiting hours in an attempt to contain the virus.

**SEVENTEEN CASES ON THE FIRST DAY** What's the alternative? The ICRC in the Philippines works closely with the local prison authorities and, with the support of the Philippine Red Cross (PRC), set up four temporary isolation centers for prisoners. In three days, a tent city able to accommodate 48 patients was erected. Prisoners that have tested positive and suspected cases in need of testing are transferred here.

The ICRC has equipped the temporary quarantine station with electricity, water and sanitary facilities, as well as medical supplies and hygiene products. On the first day of operation, April 8, 2020, 17 prisoners were admitted. In addition, personal

hygiene articles were distributed to many inmates. The ICRC also supports local prisons in the Democratic Republic of the Congo, Gaza and Kenya in the fight against the new coronavirus. The ICRC is visiting over one million detainees worldwide and is working to ensure humane treatment and detention conditions for all prisoners, regardless of the reasons for their incarceration.

But what are the longer-term prospects for the prisoners in Quezon City? The times in which inmate numbers swell to up to five times the original capacity could be over in the next few years: In October 2018, the ground-breaking ceremony was held for a new, modern prison designed to house 4,400 inmates; the construction period is scheduled to last a maximum of three years. The new prison will have more space and provide better conditions for all prisoners. ■

**Commitment** In 2008, Credit Suisse became the first globally active bank to join the ICRC Corporate Support Group, a group of donors consisting of companies and foundations that support the ICRC in carrying out its mandate.



The ICRC has equipped the quarantine station with electricity, water, sanitary facilities, medical supplies and hygiene products.



Annibale CARRACCI  
"Christ appearing to Saint  
Anthony Abbot" (about 1598)

This small painting by Carracci, alongside Caravaggio one of the co-founders of Italian Baroque painting, is a classic depiction of overcoming crises and personal demons. It tells the story of St. Anthony, the early Christian hermit who was famous for resisting the devil's attempt to lead him away from his life of monastic virtue several times. The painting shows him receiving a consoling vision of Christ.

# A R T C R I S I S CREATED DURING

Whether following natural disasters, wars or personal struggle, many classic works of art have been born of crisis. *Gabriele Finaldi*, director of the National Gallery in London, has selected six such masterpieces for Bulletin.

Image: Annibale Carracci: Christ appearing to Saint Anthony Abbot. About 1598. © The National Gallery, London. NG198



Egbert *VAN DER POEL*  
A view of Delft after the  
explosion of 1654  
(1654)

On October 12, 1654 – the date is engraved into the painting – a gunpowder magazine exploded in the Dutch city of Delft, reducing a large part of the city to rubble. Local artist Egbert van der Poel, who lost a child to the explosion, painted the scene a total of 20 times. His visual emphasis on the buildings lends the scene a symbolic strength. The message: Although a vast area of the city was obliterated by catastrophe, its institutions stand strong.

Vincent *VAN GOGH*  
Long grass with butterflies  
(1890)

During his time spent at the psychiatric hospital at Saint-Paul de Mausole, near the village of St-Rémy in the south of France, Vincent van Gogh found solace in nature and the surrounding countryside, which served as inspiration for one of his most beautiful and personal works. The path near the top of the painting gives the illusion of depth despite the absence of horizon or sky.

Images: Egbert van der Poel, A view of Delft after the explosion of 1654, 1654. © The National Gallery, London; John Henderson bequest, 1879, NG1061; Vincent van Gogh, Long grass with butterflies, 1890. © The National Gallery, London; Bought, Courtauld Fund, 1926, NG4169





Image: Peter Paul Rubens, Minerva protects Pax from Mars ("Peace and War"), 1629-30. © The National Gallery, London. Presented by the Duke of Sutherland, 1828. NG46

Peter Paul RUBENS  
Minerva protects Pax from Mars  
("Peace and War")  
(about 1629)

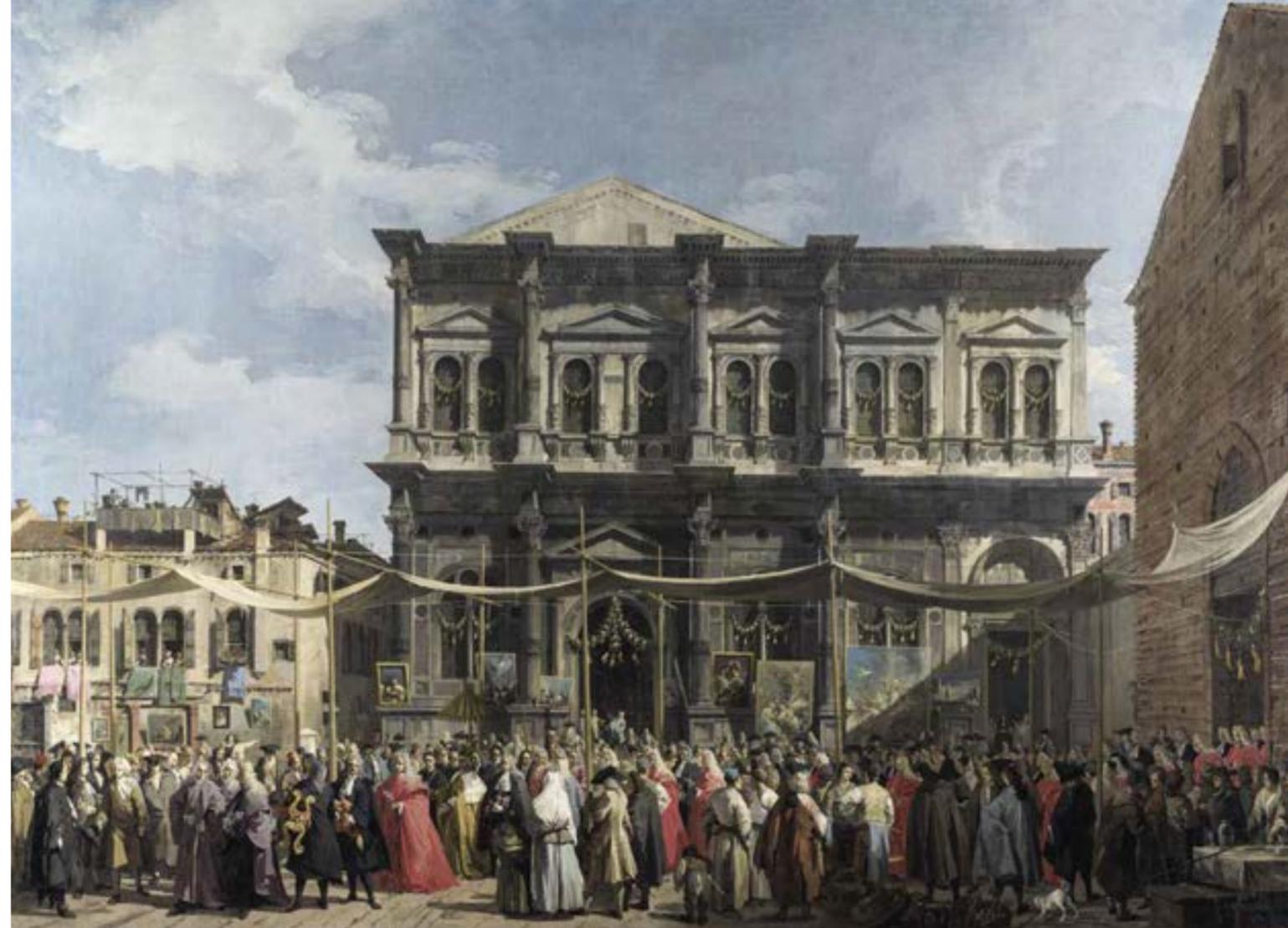
Rubens created this painting as a gift to the King of England while peace negotiations for the Anglo-Spanish war were faltering. The helmeted Minerva, goddess of wisdom, resolutely fends off Mars, god of war. The overall message is clear: Rejecting war and embracing peace will bring prosperity and plenty. Rubens' mission bore fruit: A peace treaty between England and Spain was signed in November 1630.

Artemisia *GENTILESCHI*  
Self portrait as Saint Catherine  
of Alexandria  
(about 1615–17)

Artemisia Gentileschi, a celebrated female artist of the 17th century, appears in the guise of Saint Catherine of Alexandria, a saint martyred in the early fourth century. The saint is depicted with resilience, indicative of the suffering both she and the artist herself endured. At the age of 17, Gentileschi was raped by the painter Agostino Tassi. She reported him, knowing she would be physically tortured during the trial as a way of making sure she was telling the truth. After the trial, she moved from Rome to Florence where this painting was probably made.



Images: Artemisia Gentileschi, Self-portrait as Saint Catherine of Alexandria, About 1615-17. © The National Gallery, London. Bought with the support of the American Friends of the National Gallery, the National Gallery Trust, Art Fund (through the legacy of Sir Denis Mahon), Lord and Lady Sassoon, Lady Getty, Hannah Rothschild CBE, Mrs. Mollie W. Vickers, the Hon. Mrs. Ashley Dawson-Damer, The Society of Dilettanti Charitable Trust Fund, Mr. Andrew Green QC and Ms. Hirsch, Mr. Matthew Santos and Mrs. Mary Kusisto, Mr. Peter Scott CBE QC and Dr. Richard Ballantine, the Diane Apostolos-Cappadona Trust, Ms. Stephen Allcock, Mr. James and Lady Emma Bernard, Miss Maxine White and Mr. James Mortimer, Michael and Felicia Crysta, the WTJ Griffin Charitable Settlement and other donors including those who wish to remain anonymous, 2018. NG6671; Canaletto, Venice: The Feast Day of Saint Roch, About 1735. © The National Gallery, London. Wynn Ellis bequest, 1876. NG937; photo: private archive



*CANALETTO*  
Venice: The Feast Day of Saint Roch  
(about 1735)

Venetian Giovanni Antonio Canal, known as Canaletto, was a prominent Italian landscape painter. This painting marked the annual celebration in Venice commemorating the plague of 1576 that killed nearly 50,000 Venetians, a quarter of the population at that time. The grand procession was held in honor of Saint Roch, who was invoked against the plague. As a well-connected trading port in the Mediterranean Sea, Venice saw several outbreaks of the plague.



**Gabriele Finaldi (55)** is a British art historian and curator. He has worked as the director of the National Gallery in London since 2015, before which he was the deputy director for Collections and Research at the Museo del Prado in Madrid. He specializes in Italian and Spanish Baroque paintings.

The **National Gallery** in London is one of the most popular museums in the world, with 6.5 million visitors a year. The collection contains over 2,300 works, representing artists from the 13th to the 19th centuries. Credit Suisse has been a partner of the National Gallery since 2008.

# Are we on the threshold of a new political era? A look at some momentous institutional, geopolitical, economic and social changes in the wake of the crisis

Text Manuel Rybach

# Politics in the time of the pandemic



Executive branches thrive in times of crisis. Governments are taking the lead, some declaring a state of emergency or mobilizing the military. Legislatures are playing a secondary role, at least for the moment, and legislative sessions have been suspended in many countries. In Switzerland, a referendum has been postponed. South Korea, in contrast, was able to hold its parliamentary elections – with record turnout – despite the COVID-19 crisis. In the United States, meanwhile, it is difficult to predict how the crisis will affect the presidential election in November. Clearly there will be logistical challenges.

Crisis situations normally benefit incumbents, who can use constant media attention to present themselves as strong leaders. However, gross negligence or mistakes in dealing with a crisis can quickly reverse that effect. In a federal system, it appears to be inevitable that leadership should come at the federal level, since a patchwork of different approaches can be detrimental to crisis management. Yet past experience does not indicate that countries with a system of strong centralized control have been more successful at managing the current crisis than those with a federal system.

Nor does the oft-cited “competition between systems” suggest that democracies are less capable of handling a crisis because they are less effective than non-democracies, or that they are less able to make decisions and carry them out with sufficient speed. A look at the success of countries like Denmark, South Korea and Taiwan shows that democracies, too, are capable of rapid and decisive action. Experience dealing with previous epidemics and excellent preparation have undoubtedly been crucial factors in their success. Other factors include swift, decisive action and skillful use of the latest digital technologies – as well as respect for scientific advice and expertise.

The latter also helps to explain the problems the “great simplifiers” – populist politicians and radical parties – have encountered as they have sought to manage this crisis, at least so far.

Trust in the government is another key to success in fighting the pandemic. The fact that democratic governments are under pressure to be transparent is doubtless a significant advantage. Democratic executives need to communicate clearly – and gain popular trust – in order to convince people of the need for what are sometimes drastic measures. The same holds true when a country is taking gradual steps to return to normal. This phase is the real litmus test for executives, as history provides a number of examples – even in democratic governments – of executives who, having gained extensive power through war or another crisis, are reluctant to relinquish it.

## 2 Geopolitics

# Who benefits?

At least at the beginning of the COVID-19 crisis, it was striking to note how little coordination was taking place between countries. Instead, governments acted on their own, according to the principle of “our country first.” Even in the Schengen Area, borders were closed without any coordination, food exports were halted and governments blamed each other. Tensions appear to have increased between China and the United States, in particular – and are likely to escalate during the US presidential campaign.

In contrast to earlier crises (September 11, 2001, the global financial crisis of 2008/09, the fight against Ebola in 2014/15), this time the United States has not assumed a global leadership role, either directly or through multilateral organizations. Instead, it has been preoccupied with its own internal affairs.

All of this raises certain fundamental geopolitical questions: Is nationalism becoming the dominant force in global politics? What does the crisis mean for China’s future role in an increasingly multipolar world? Will the EU come out weaker from the crisis? What are the implications for emerging and developing countries?

In the past, whenever crises have threatened the security or health of the population, the nation-state has been the first and most important line of defense. Nothing has changed in that regard. However, this does not necessarily mean that multilateralism will grow weaker overall. Cooperation still works when it has clear benefits, for example in stabilizing the international financial system.

China, in particular, but also Russia, have sought to portray themselves as rescuers, “saving the day” by delivering aid and sending medical workers to Europe – and indeed, the EU’s performance in this regard has been disappointing, at least at the beginning of the crisis. So is China the “geopolitical winner”

of the crisis? When Serbia’s president kisses the flag of the People’s Republic of China at Belgrade airport in gratitude for China’s aid shipments, this is certainly an example of successful “soft power” diplomacy. It should be noted, however, that declining investments are likely to put a damper on China’s prestigious Belt and Road Initiative, at least temporarily. And some countries are going to try to broaden their base and reduce their dependence on others, notably China, as suppliers, investors or key markets.

As for the EU, the COVID-19 crisis has highlighted internal differences between the economically strong northern member states and the countries of southern and eastern Europe. Yet it seems reckless to predict that charges of insufficient solidarity and disagreements about so-called corona bonds – a measure to “mutualize” debt – will cause a split in the EU. Historically, crises have led to more European integration, not less. Once the crisis is overcome, the EU is more likely to continue to move toward a fiscal or transfer union than to break apart.

Finally, the European Central Bank has shown once again in this crisis that it is the most important pillar of financial stability. Discussions about the future relationship of the EU with third countries like Switzerland, and now with the United Kingdom, too, have been delayed. So far, efforts to deal with the crisis have been characterized by cooperation and good-neighborly relations. This was evident, for example, when Swiss hospitals temporarily admitted COVID-19 patients from Alsace.

Since the situation of many developing countries and emerging markets is likely to deteriorate, given their less advanced healthcare systems and lack of fiscal flexibility (exacerbated to some degree by the collapse of oil prices), calls to provide debt relief for these countries are growing louder. We can also expect to see increased migration to North America, and especially to Europe, as soon as the relevant routes are open again. This challenge is likely to grow as a result of the pandemic.

# A return to state control?

Crises of the magnitude of the COVID-19 pandemic inevitably strengthen the government's role in the economy and economic policy. Declaring a state of emergency, the “Leviathan state” shuts down large segments of the economy to protect the safety and health of the population, and by taking such drastic action to restrict economic freedom, it is asserting the primacy of the political sphere.

Purchases of enormous quantities of bonds are increasingly blurring the line between monetary and fiscal policy. It is becoming a real possibility that the central banks will provide monetary financing for government debt. In the United States, some automobile manufacturers have been forced to produce ventilators. Faced with the need to address the economic effects of the crisis, even countries whose approach to economic issues is fundamentally liberal have come to view the (partial) nationalization of certain companies not only as acceptable, but in some cases as urgently needed. Switzerland's system of short-time work is – appropriately – becoming a popular export to other countries as a way of fighting or preventing unemployment. This is true even in English-speaking countries, which have traditionally been more inclined to take a liberal approach to labor markets.

In addition, government aid packages and/or bailouts are being offered to certain companies or even entire industries; there is talk of taking action to protect companies against foreign takeovers; support is being provided to industries deemed to be of strategic importance; and there are calls for greater self-sufficiency. Political pressure to “bring home” portions of the international supply chains, in an effort to reduce dependence on foreign production sites, will reinforce the current trend toward deglobalization.

Obviously, some of these measures may be reasonable and necessary in times of crisis. If they were to continue for a longer period, however, the protectionism they reflect would reduce prosperity. Moreover, it is almost inevitable that major government programs to support business will lead to the misallocation

of capital, which could artificially prop up companies that were no longer viable even before the crisis began. Furthermore, some observers predict that the crisis will strengthen larger companies and perhaps lead to oligopolies, which will create new challenges for competition policy.

In Switzerland, trust-based cooperation between the federal government and the banks is a positive example of successful collaboration between the government and the private sector. In record time, this has led to the establishment of an efficient and unbureaucratic system for providing liquidity for Switzerland's small and medium-sized enterprises, one that has attracted considerable attention abroad. This is an effective way for the banks to fulfill their important economic role and their social responsibilities.

Government debt is increasing dramatically throughout the world, with corresponding effects on the tax burden – also because calls to expand the welfare state, especially in the healthcare sector, are growing louder in many countries. Another effect of the crisis is likely to be a worsening of existing economic disparities – which could lead to a political backlash and calls for regulation and redistribution. (An in-depth discussion of indebtedness, healthcare systems and inequality can be found in the Credit Suisse Research articles beginning on page 4.)

Priorities in many policy areas have undergone a clear and rapid shift, since for the foreseeable future the most important concerns will be to manage the global recession triggered by the COVID-19 crisis and, in particular, to combat unemployment. A number of international and national financial regulation programs, such as the finalization of the Basel III measures, have been postponed so that banks can concentrate on providing liquidity for the real economy. Banks are much better capitalized than they were prior to the global financial crisis, especially in Switzerland. However, important national reforms will be delayed as well, including the pension reform in France to which President Emmanuel Macron had attached such importance prior to the crisis.

Climate change, the predominant issue last year, appears to have dropped down on the list of policy priorities. The United Nations Climate Change Conference, known as COP26, which was to be held in Glasgow in November 2020, has had to be postponed until next year. But at least the coronavirus crisis is having some positive effects in terms of environmental sustainability – albeit coming at a high price. With a significant drop in economic activity and a decline in travel worldwide, we are likely to see a decline in CO<sub>2</sub> emissions and improved air quality in 2020. However, climate change will continue to be a key issue over the medium and long term.

In the light of the current crisis, the fundamental importance of resilient companies, economies and governments is obvious – and this applies not only to health risks, but also to threats to the climate. It remains to be seen whether a “green” rebuilding of the economy will take place after the crisis, as demanded by those who see the pandemic as a catalyst for creating a more sustainable economic order, although the European Commission, notably, would like to move in that direction.

It is certain, at any rate, that digitalization will significantly boost every sector of the economy – from education to the financial sector to the healthcare system, where innovation is particularly needed. If remote working, including across national borders, is increasingly embraced as a sustainable model, the crisis might even promote globalization, at least in the service sector.

## 4 Social policy

# Freedom versus public health?

The measures governments have taken to combat the pandemic, which have restricted basic rights, raise fundamental social issues.

What will the private sphere and data protection look like in the future? Are we at risk of constant surveillance, which could undermine the liberal social order? Authorities in several countries are not only taking hygienic measures, but also using smartphone data for contact tracing of infected individuals. In many places, responsible citizens appear to be willing to provide their data in the interest of their own well-being as well as the common good. But they should not be compelled to do so. Infringements of the private sphere should be permitted only in crisis situations, and restrictions imposed on people's freedoms for legitimate reasons, in an emergency situation, must be lifted once the emergency has passed.

The crisis has produced many examples of increased solidarity in society, and particularly between different generations, especially on national and local levels. Unrestricted redistribution between younger workers and retirees will further worsen the prospects of younger generations. That could exacerbate the economic conflict between generations – particularly as it could be argued that when it comes to climate change, solidarity should flow in the opposite direction, with the older generation looking out for the young.

Whether the wave of solidarity that society is currently experiencing will continue depends in large part on the success or failure of government efforts to contain the pandemic and minimize its economic consequences. In a positive scenario, solidarity will continue, also serving to counteract extremist demands. An open discussion might also improve the chances of reforming retirement provision. In a negative scenario, social and political conflicts could increase.

Finally, there are some difficult ethical issues that need to be addressed: How should the government and society weigh the competing demands of freedom and public health – of protecting life, especially the lives of those who are most at risk, and the economic prospects of younger generations? Such trade-offs have always posed a major challenge for policymakers. But it is in times of crisis, and especially as efforts are being made to combat the pandemic, that the essence – and difficulty – of political decision making becomes especially clear. A great deal is at stake.

It is doubtful that the development of a vaccine will resolve the fundamental conflict between divergent political and social goals. In retrospect, it is already clear that preparations for the pandemic were inadequate in much of the world, including Switzerland. Yet it is equally clear that this inadequacy should not be interpreted as evidence of a fundamental failure of democratic and liberal political systems. Over the long term, the consequences of such an interpretation would be more devastating than the pandemic itself. ■



**Manuel Rybach** is Global Head of Public Affairs and Policy at Credit Suisse. Rybach, who holds a PhD in political science, is also a lecturer in public affairs at the University of St. Gallen (HSG) and was a visiting assistant professor at the University of Hong Kong (HKU).

# “We will find a solution”

André Hoffmann, the world is fighting COVID-19. How are you doing?  
I am sad and disappointed.

Why?

I am a board member of the World Economic Forum. Every year we publish a risk report for our members. This is a part of our flagship publication, and we have listed the risk of infectious disease as a high likelihood for 15 years. Every year we wrote that we should prepare for it. Governments listened, particularly around the time of bird flu, SARS and Ebola. But what happened? Nothing. And now we have a virus, just a strand of RNA in a bit of protein coating, and this minute piece of genetic material has brought the world to a standstill. It's just unbelievable; it defies imagination.

André Hoffmann is appalled that warnings about an epidemic have gone unheard for years. The Vice-Chairman of Roche and great-grandson of the company's founder on lessons from the crisis, the prerequisites for innovation, and uniting profit and sustainability.

Text Simon Brunner Photos Sébastien Agnetti

Do you see any positives here?

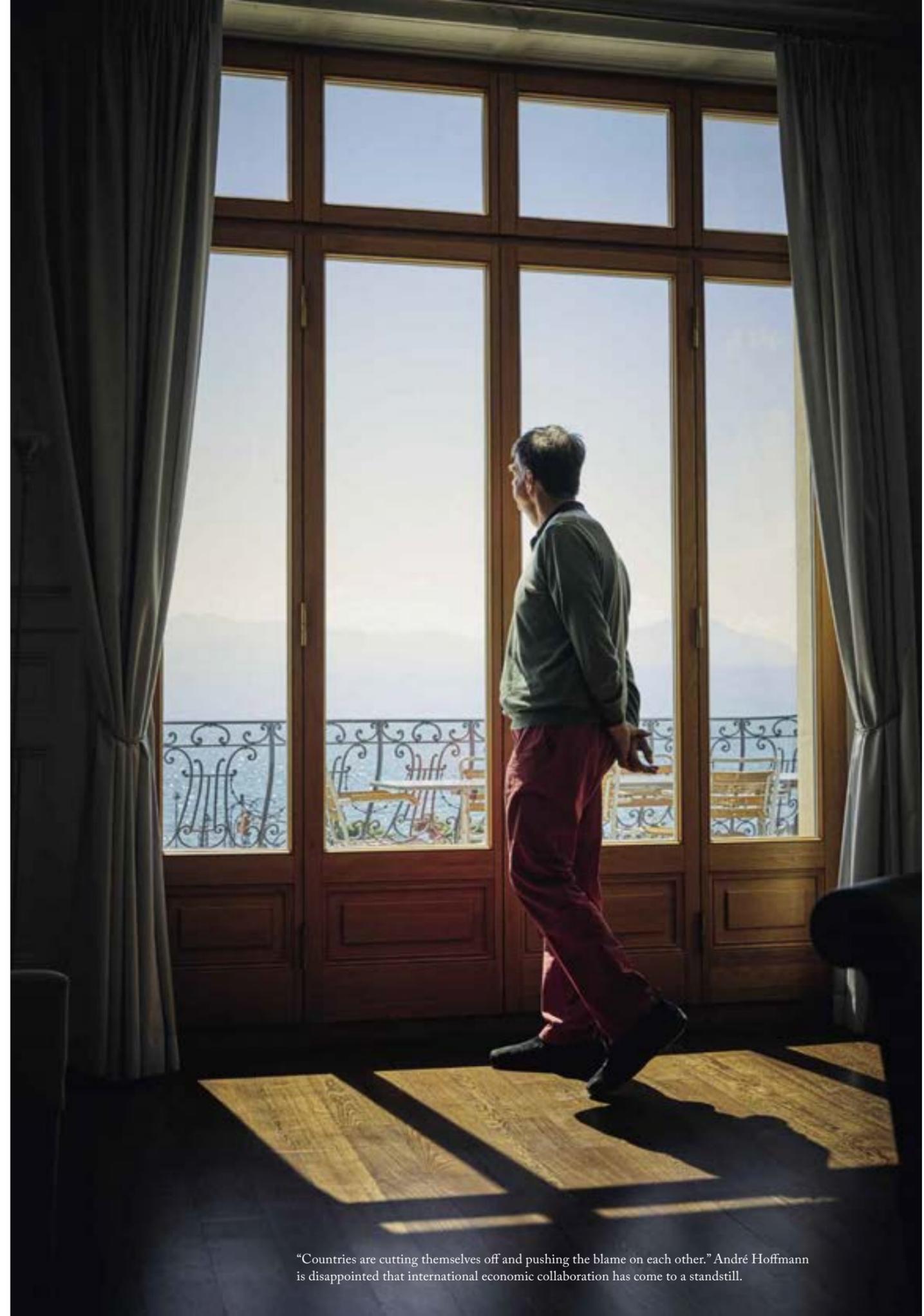
Now that the situation is here, I'm impressed by the way the world has worked together to find a health solution. The pharmaceutical industry, universities, governments and regulators have all worked really hard. I have never seen cooperation on a level like this before. And it's becoming increasingly apparent that we will find a solution. That's good news. On the other hand, I am concerned about the economy – we had to shut it down, of course we did, but if it's going to recover quickly, we need the sort of collaboration that we have seen in the health world. Unfortunately, it's just the opposite: Countries are cutting themselves off and pushing the blame on each other. They are only thinking about their own people. This leads us to the next problem: We have a crisis of solidarity.

What do you mean by that?

People are applauding the health workers, but the official government narrative is: “Be careful, the neighbor can infect you, keep away from him,” or “Don't help the old lady to cross the street, take care of yourself first.” The “me” is still favored over the “we.” This is toxic for society in the long run, and it will be very difficult to get over it.

The current crisis has brought on a massive wave of unemployment – in Switzerland too. What can be done about it?

Did you see the 1,200 people queuing up for food at a soup kitchen in Geneva and Médecins Sans Frontières testing their health status? We know scenes like this from refugee camps, but not in the center of a Swiss city! We really have to turn our attention to jobs now. My great-grandfather Fritz Hoffmann-La Roche founded Roche as a startup in 1896. Today, we have around 95,000 employees. Young companies can play a key role in Switzerland's future.



“Countries are cutting themselves off and pushing the blame on each other.” André Hoffmann is disappointed that international economic collaboration has come to a standstill.

# Competing ideas are the best source of innovation.

Last year, you became Vice-President of the >>venture>> foundation,\* which organizes one of Switzerland's oldest and most prestigious startup competitions. Why?

Switzerland is so successful because it has more ideas than natural resources. ETH, EPFL, UZH, UNIL, the University of Geneva... we have incredibly good teaching institutions, which foster a huge amount of creativity. Giving graduates of these institutions the opportunity to realize their ideas is something I wholeheartedly support. It's a service to society. And >>venture>> has the same philanthropic approach that I do. It's not how you spend the money that matters – it's how you make it.

What do you mean by that?

My family is very fortunate to own a wonderful business that is making an important contribution to society. The most powerful instrument that my family and I have is that we can influence the company to behave in the right way. We don't just follow the Milton Friedman doctrine that the aim of a business is to make money, that money will then be transferred to society, which is left to solve all the problems induced by the profit-making activities.

In 2018, you and your wife co-founded the Hoffmann Global Institute for Business and Society at the INSEAD business

\* >>venture>> is the leading competition for up-and-coming entrepreneurs in Switzerland. Credit Suisse has been supporting >>venture>> since it was founded in 1998. [venture.ch](http://venture.ch)

school. What type of leadership do you want to encourage? We've already spoken about short-term profit maximization and that it doesn't work. My alma mater INSEAD has also been teaching this for a long time. For me, it's important that the way you make money respects all three forms of capital: human capital, environmental capital and financial capital. Don't focus only on financial capital but also look at impact. The founding principle of our institute is don't create a problem and then try to solve it; try not to create the problem in the first place.

You associate with a lot of business leaders. How do they react to your approach?

When I meet my friends in a café – when that was still an option, at any rate – and we drink a few of glasses of white wine together, everyone says they're worried about the state of the world. We all agree that "we have to do something!" But the next day they go back to the office, shut the door behind them, and the only thing that counts is profit maximization. These are not bad people. They're my friends. They have good values, but they think that that's what's expected of them. We equate success with cash, while we all know that this is not the only thing that matters

No pharmaceutical company spends more on research and development than Roche. Tell us, what is the best environment for innovation to thrive in?

About 150 million patients around the world take our drugs every year. So we have to innovate, or else go under. Not just in terms of science but also in terms

of new products and organization. But it's not easy to foster innovation in big organizations. What you need most is competition. Within Roche, we have several innovation groups that compete for resources and in recent years we've increasingly opened the door to external innovation. Competing ideas are the best source of innovation.

Will innovation lead us out of this crisis?

This is my opinion now, not Roche's, as we are not involved in vaccine research. A vaccine's never been developed in less than five years, and we are currently in the process of undercutting this drastically. As I mentioned at the beginning, I've never seen this level of collaboration to make something happen. But one thing that is almost impossible to cut short is toxicology studies. If everything goes well, and I mean very, very well, we could have a proof of concept by the end of the year. But it could also take 18 months. Already now we should start to ramp up production capacities massively, because we need at least seven billion doses, the reason being that if we don't vaccinate everybody, then we won't be able to eradicate the virus.

Are you sure there'll be a vaccine first and not a drug treatment?

No, not at all sure. We still know so little about the virus. We keep hearing about lung infections, but patients are dying from kidney and heart failure. There is a loss of smell and taste – all these things have nothing to do with the lungs.

How is Roche being impacted by the current situation?

Sometimes I read in the papers that the crisis is a good business opportunity

for us. That's just not the case. We do produce antibody and serological tests and we sell a lot of them, but we offer them for the same price as other tests, even though we could earn a lot more money with them. At the same time, we're selling less of other products because patients fear going to hospital. I don't want to complain – the crisis is hitting other industries much harder.

What should humanity learn from this crisis?

We humans created the Anthropocene, the age in which human beings have become the main influencing factor. We believe that we can control everything, calculate every risk. Then along comes a virus, not even a proper living creature, that brings everything to a standstill. For me personally, as a longtime campaigner for conservation, it shows that we're not as strong as we think we are. Quite the opposite: We are fragile. Yet we try to dominate nature and to squeeze everything out of it. In the future, we need

more modesty and humility. We are a part of nature – it does not belong to us. And to foster resilience, cooperation is always better than attempted domination.

Social entrepreneurship is experiencing a boom, there are more and more startups that are doing something for the Sustainable Development Goals. Do you welcome this development? Yes, of course. But I should say up front that you can't be successful and change the world if you're not profitable. Without a positive cash flow, you're part of the problem, not part of the solution. I like it when a fintech says: Our mobile payment solution makes life easier for Ugandan farmers, and we make money with it as well. I do not differentiate between for-profit business, ethical business and impact business. They all must earn money, and they should do so with an ethical approach. Earning money in the developed North and then spending it in the poor South is not a recipe for success. We tried it for 50 years, and it

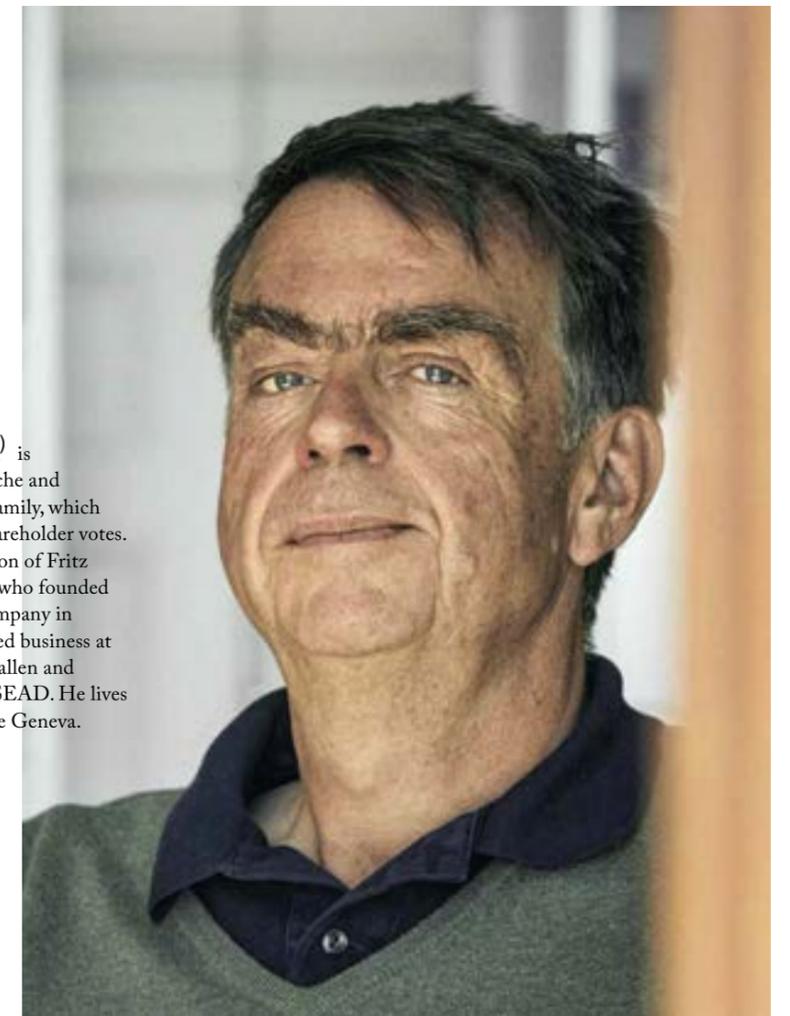
didn't work. We have to start giving poorer countries the opportunity to generate positive cash flows themselves.

You have founded several companies yourself. What's your most recent startup?

I funded GIST, together with my friend Pavan Sukhdev, who's president of the WWF [*editor's note: see Bulletin 1/2019*]. We're using artificial intelligence to assess published data on the environmental impact of companies in a neutral, objective way. I'm committed to this work because reliable data is a prerequisite for companies to improve. And investors need this data so that they know how to invest in sustainability. This is the only way we'll be able to achieve a circular economy. ■

André Hoffmann (62) is

Vice-Chairman of Roche and represents the owner family, which holds 45 percent of shareholder votes. He is the great-grandson of Fritz Hoffmann-La Roche, who founded the pharmaceutical company in 1896. Hoffmann studied business at the University of St. Gallen and has an MBA from INSEAD. He lives with his wife near Lake Geneva.



# Finding the right dosage

Switzerland enacted appropriate fiscal measures in response to the crisis. And Credit Suisse economists forecast a reduction in government debt to begin soon.

Text Claude Maurer and Franziska Fischer



When it comes to treating your health, medications should provide fast and effective relief, ideally with no long-term side effects. Furthermore, the right dosage is also critical. The same holds true for government measures aimed at stabilizing the economy implemented during the COVID-19 pandemic. Within an incredibly short space of time, this virus brought the world to a standstill. Not only figuratively, but in a literal sense, too: Seismologists have observed a reduction in the vibrations of the Earth's surface attributable to diminished human activity. As a result of the lockdown imposed to stop the spread of the virus, production in substantial parts of the economy has come to a halt, international supply chains have been interrupted, and many service companies have shut their doors.

In light of this global standstill, the economic slump is staggering. According to our forecasts, Switzerland's gross domestic product (GDP) is likely to shrink at a rate last seen on the heels of the oil crisis in 1975. Yet the current situation differs from previous recessions not only in its severity, but also in the rapid response by the authorities.

**SWIFT, UNBUREAUCRATIC AND EXTENSIVE** The governments in numerous countries have put together emergency aid packages, most of which were significantly larger than the fiscal spending seen in response to previous crises (see Figure 1). As part of attempts to minimize the medium- to long-term effects of the lockdown, it was crucial from the outset that fiscal policy

counter the trend swiftly, unbureaucratically and on a large scale. It was equally important for the central banks to secure the stability of the financial system, which, at times, was in jeopardy, particularly early on in the crisis. In Switzerland, key fiscal policy measures included implementing short-time working and granting government-backed bridging credit facilities. Economists apply three criteria in assessing government measures to stabilize the economy: They should be timely, targeted and temporary. The Swiss measures perform well according to all three criteria.

With short-time working, the Federal Council opted for an existing and proven tool that can be implemented very quickly (checking the "timely" box) and is quite popular. According to the State Secretariat for Economic Affairs (SECO), an application for short-time working had been made for more than one-third of employees in Switzerland within just a few weeks. The unemployment rate also rose at the same time, and in order to ensure that claims could be processed and paid out as quickly as possible despite the (mainly virtual) run on unemployment offices, the Federal Council passed swift measures to simplify administrative processes.

Short-time compensation also meets the "targeted" criterion. Benefits are available only to those companies that have been affected by underutilization attributable to the coronavirus crisis – whether because of regulatory measures (bans on events, business closures) or due to lower demand or supply bottlenecks. At the same time, the tool has been expanded to include

employer-like employees, bringing relief to some of the disproportionately affected self-employed. In addition, relief programs have been established for independent freelance workers. Finally, as defined by the law, short-time working covers only a limited period ("temporary"). Compensation is paid for a maximum of 12 months within a two-year period. Indeed, the measures taken by the Federal Council to expand short-time working are applicable for six months only.

**PIVOTAL ROLE OF BANKS** The measures aimed at ensuring the liquidity of companies were also implemented very quickly. The Swiss National Bank (SNB) mentioned them for the first time on March 19, and the first guaranteed loans were already granted on March 26. Although formally issued by the banks, most COVID-19 loans are backed by federal government guarantees. Therefore, from an economic perspective, the state is basically the lender. And yet the role of banks remains crucial. First of all, the SMEs take out the loans from their house banks, significantly lowering the administrative burden at the federal level. Secondly, these COVID-19 loans are recognized on the banks' balance sheets, effectively allowing them to be financed by the banks themselves.

So, at least initially, the federal government is not forced to issue new bonds on the capital market. Banks meanwhile have a co-determination right when it comes to the total volume of loans granted. After all, there are limits as to how much

## 1 Record fiscal stimulus measures globally

As a percentage of GDP; current estimates for 2020, note: estimates for 2020 include government loan guarantees

- 2020
- ▲ 2008/09
- ▲ 2001/02

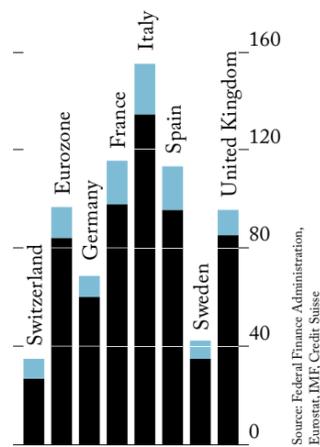
Sources: IMF, OECD, Swiss Federal Council, Credit Suisse (as of June 9, 2020)



## 2 Swiss debt-to-GDP ratio relatively low

As a percentage of GDP  
(according to Maastricht criteria)

■ COVID-19-related increase in 2020  
■ 2019

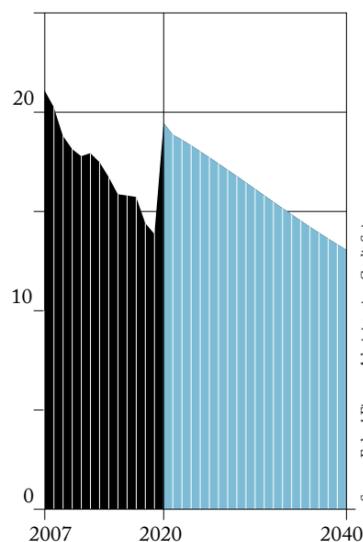


Source: Federal Finance Administration, Eurostat, IMF, Credit Suisse

## 3 Federal debt-to-GDP ratio will begin to decline soon

As a percentage of GDP

■ Debt-to-GDP ratio  
■ Simulated reduction in debt



Source: Federal Finance Administration, Credit Suisse

their balance sheets can bear, and they may therefore be forced to limit other lending activities. Another limiting factor is that the banks' financing costs are higher than those of the federal government. Loans were granted at a brisk pace despite these limitations, and the federal government had to double the volume of its guarantees to 40 billion Swiss francs after just two weeks in order to meet the strong demand.

The COVID-19 loans are a very fast and efficient emergency measure to ensure that companies can cover their fixed costs during the lockdown and pay their suppliers. Still, it is likely that not all loans can be repaid. If, for instance, fixed costs comprise one-third of revenue (which is the case for restaurants according to figures from the Swiss Federal Statistical Office), then the maximum loan possible (10 percent of revenue) would be depleted after three-and-a-half months without income. Furthermore, assuming a cash flow margin of 10 percent (the average for restaurants is 6.5 percent), companies would use around one-fourth of their cash flow over the next four years to repay the loan.

**SNB COUNTERS A STRONG FRANC** The SNB has also taken action to boost the economy. First, it has provided relief to banks by relaxing the countercyclical capital buffer requirements and offering them further support in the form of a new refinancing facility for granting the bridging loans. Second, the SNB bought up foreign exchange products in order to curb the appreciation of the Swiss franc.

All these measures have helped to avoid structural damage to the Swiss economy resulting from mass layoffs and a wave of bankruptcies. However, they are no panacea. Many companies, mainly in sectors like tourism, have laid off workers, and unemployment has also risen as a result. The extent to which this will be reflected in higher core unemployment remains to be seen. However, we are relatively optimistic in this regard, given the extraordinary flexibility of the Swiss labor market.

**FINANCIAL LEEWAY** Government debt will also rise as a result of this active fiscal policy. And yet, relative to other countries, this increase is beginning at a lower level in Switzerland. Before the crisis, the debt-to-GDP ratio in accordance with the Maastricht criteria applicable in Europe was a mere

27 percent in Switzerland (see Figure 2). In fact, the federal government also had access to a liquidity buffer of 23.4 billion Swiss francs when the crisis began and was able to handle most of its spending without incurring any additional debt. We also still expect that not all of the obligations that were entered into will actually have to be paid out. Only a portion of the guarantees for COVID-19 loans are likely to be written off. On the other hand, we anticipate that the crisis will cause tax revenues to drop. On the whole, we forecast that Switzerland's debt-to-GDP ratio will rise relatively little and, at around 35 percent by the end of 2020, will remain low by international standards (see Figure 2).

Furthermore, even in the absence of special austerity efforts, the federal debt-to-GDP ratio is expected to decrease gradually beginning in 2022 (see Figure 3). This trend is no surprise, given that the federal government can invest at negative interest rates and the current added spending is only temporary. There is clearly sufficient financial leeway for providing a dosage of fiscal measures strong enough to adequately boost the economy. ■

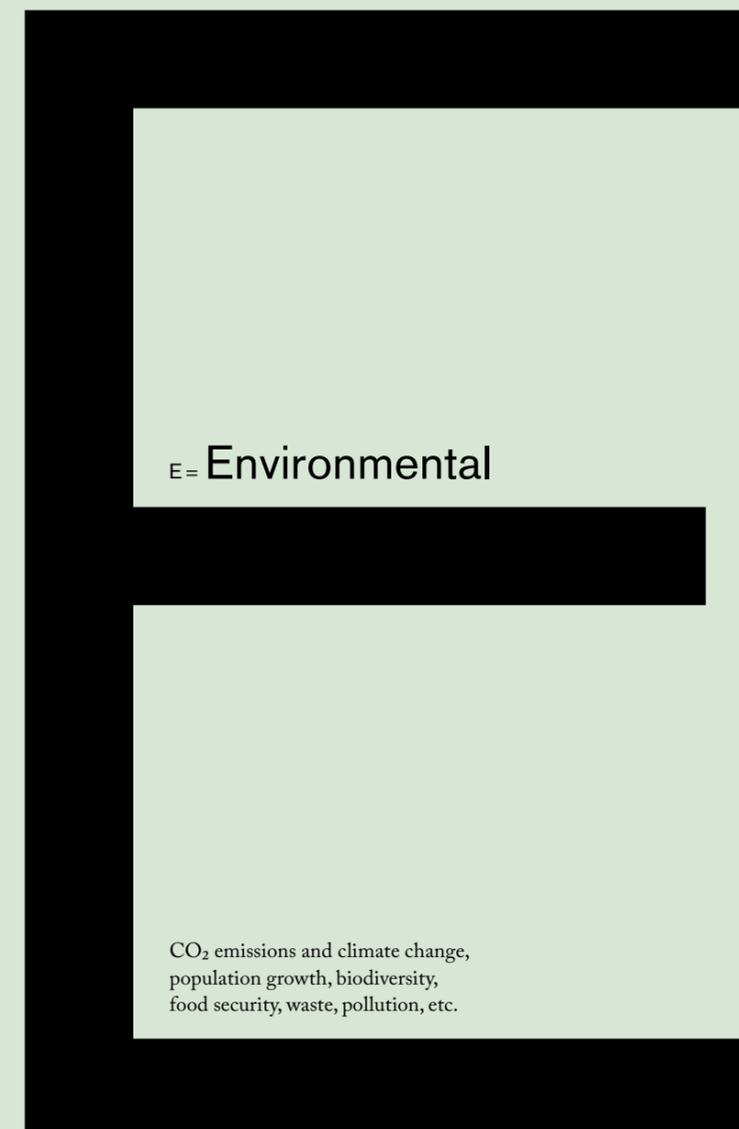
**Claude Maurer** is Head of Swiss Macro Analysis at Credit Suisse.

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# The turning point

The crisis has boosted the amount of companies taking a holistic view of their activities. This sustainable approach should continue to play a central role in the future.

Text Daniel Wild



**S = Social**

Human rights, child labor, working conditions and standards, equality and diversity, etc.

T

The worldwide COVID-19 pandemic has shaken markets to an extent not seen since the global financial crisis of 2008–2009. In addition, governments have closed borders, partially banned domestic travel, shut down offices, schools, shops and restaurants, and supported the economy on an unprecedented scale with rescue packages. The impact on the financial markets is enormous.

The question remains which business models will prove themselves in the future. Sustainability topics have been in vogue for

some time now, and they are likely to become even more important in the coming years. The crisis has made it clear how important a holistic view is: Business, society and nature belong together; they cannot be viewed individually.

How do you measure a company's sustainability? In recent years, the concept of ESG (environmental, social and governance) has become established. ESG measures how well companies do in these areas, on which there is traditionally relatively little reporting.

**"WHO CARES WINS"** The idea that investors expect more than just financial returns from their investments emerged in the

middle of the 20th century. For example, English trade union pension funds demanded greater social commitment from the companies in which they invested. Other important milestones for sustainable investing were the report "Limits to Growth" published by the Club of Rome in 1972, the founding of the Intergovernmental Panel on Climate Change (IPCC) in 1988, the UN Conference on Environment and Development in Rio (1992), and the World Climate Summit with the Kyoto Protocol (1997). Finally, the Dow Jones Sustainability Indices, which today are among the most important indices for sustainability issues, were launched in 1999.



G = Governance

Bribery and corruption, quality and diversity of the board of directors, shareholders' rights, executive compensation, etc.

In 2004, Kofi Annan, UN Secretary-General at the time, invited the CEOs of the 50 most important financial institutions to create a framework that would define the integration of ESG into the capital markets. Twenty-one eventually participated, including Credit Suisse. The final report, which was co-financed and co-published by the Swiss Confederation, had the appealing title "Who cares wins." Two years later, the UN formulated the Principles for Responsible Investment (PRI), which have since been signed by almost 2,500 financial players representing a combined investment potential of over 80 trillion US dollars. Today, ESG investment products are estimated to be worth 40 trillion US dollars, up from 23 trillion US dollars in 2018.

Why are sustainable investments particularly resilient? Even before the pandemic, various studies showed that companies that understand and actively manage risks are in a better position to survive a crisis, and the recent crisis has once again confirmed this. Typically, such risk management relates to issues like supply chains, employee loyalty, corporate governance and internal processes – all factors of a systematic ESG analysis.

**BETTER POSITIONED** After the current crisis, the use of ESG information could support the transformation from the old to the new world in several ways. Or, to put it more simply: It is worth taking ESG assessments seriously for a number of reasons.

- 1 *Intangible assets are becoming more important* – A company's ability to manage ESG issues successfully can be interpreted as an intangible asset that is becoming increasingly important in company valuations.
- 2 *Greater awareness of risks and vulnerabilities* – The last few months have shown how interconnected and vulnerable our economic systems are. The crisis is drawing attention to such risks and vulnerabilities.
- 3 *More focus on resilient sectors and broader acceptance of change* – Capital-intensive and cyclical sectors are hardest hit by the new coronavirus, especially those with globally integrated supply chains, and those related to tourism and non-essential services. Innovative and sustainable business models will become more appealing in all sectors.
- 4 *More attention to good corporate governance* – High standards of corporate governance are at the heart of a sustainable corporate strategy. An analysis of ESG indicators provides important information on the quality of management and identifies companies that show resilience in times of economic downturn. At the same time, these companies are better positioned to seize opportunities when the economy recovers.
- 5 *Greater attention to ecological and social resources* – The drastic measures taken to combat the new coronavirus brought unexpected, even spectacular side

effects: In Jalandhar in the north of India, air pollution fell so drastically that the surrounding mountains were visible for the first time in 30 years. In Venice, fish and wild animals found their way back into the lagoon.

Regardless of the fact that these findings come at a very high price, they could influence the way we see the world and rebuild our economy after the crisis. However, it remains to be seen how things will continue once the crisis is over. Will the holistic view of companies be further deepened? Besides economic considerations, ecological and social resources should play a greater role in the decision-making process in the future – and the holistic view of companies should become more important. ■

Daniel Wild is Global Head of ESG Strategy at Credit Suisse.

**Credit Suisse Supertrends** Our everyday life has changed massively during the COVID-19 pandemic. Looking back, we will probably see 2020 as a turning point in our way of life and thinking. How will the world move forward? Credit Suisse Supertrends can provide some answers. The Supertrends focus on multi-year societal trends that we believe will lead to fast-growing business opportunities. The Credit Suisse Supertrends are: 1) *Anxious societies* – Inclusive capitalism, 2) *Infrastructure* – Closing the gap, 3) *Technology at the service of humans*, 4) *Silver economy* – Investing for population aging, 5) *Millennials' values*, and 6) *Climate change* – Decarbonizing the economy. More information on how Credit Suisse is addressing the challenge of climate change can be found at [credit-suisse.com/climate](https://credit-suisse.com/climate)

Supertrends: [credit-suisse.com/supertrends](https://credit-suisse.com/supertrends)  
More about ESG at Credit Suisse: [credit-suisse.com/ch/en/asset-management/esg-investing.html](https://credit-suisse.com/ch/en/asset-management/esg-investing.html)



“

I should  
start being  
funnier again”

## When is it okay to joke about coronavirus? Is art essential? Could social media replace the theater? A serious conversation with actor and cabaret artist Mike Müller about humor during a crisis.

Interview Simon Brunner Photos Joan Minder

Mr. Müller, how has coronavirus changed your professional life?

Advance theater sales started dropping about three weeks before the lockdown, and everything came to a halt on March 13. *[Editor's note: Switzerland instituted a ban on events of more than 100 people on that date.]* Luckily, my tour was about to end anyway, and I had only 30 more performances to go. I performed 190 times last year, and I was working nonstop this year, too. I was planning to reward myself with a trip around the world. My big goal was to take a break – but not this kind of break.

How did you respond when the crisis hit? Like most people, I thought it would soon be over, and I was starting to arrange new tour dates. But the outlook was becoming increasingly dismal. At first people were saying we'd be performing again in July. Then it was, "Things will start up again in September." Now they're saying, "We'll be happy if we have any performances at all this year."

How can a society manage without art and culture for such a long time? We take ourselves much too seriously in our industry. People can manage quite well without us.

So we can live without theater, ballet, cabaret, cinema, opera and musicals? Many artists find it infuriating that they may not be essential. But can you see any damage done? I can't. The people complaining the most are the ones who have permanent positions, say at a municipal theater. But they, of all people, should just be happy that they're getting paid at all. Freelance artists have had all of their performances cancelled, and they're not receiving any income at all.

How do you spend your days? I'm working on my next play, about an inheritance. The plan was to open at the end of 2020, but right now that's uncertain.

Do you feel the same way as your Austrian colleague Josef Hader? Not long ago, he said that the lockdown was ideal for him – it allows him to concentrate on his writing.

Not initially. At first I found the situation difficult, even paralyzing. It made me anxious. But then I was able to establish a certain rhythm. I like to work at home. When you're in the humanities, you're basically working at home from the moment you graduate from high school.

Are you one of those people who wanted to learn everything there is to know about coronavirus?

Not really. The information a layperson needs to know is relatively trivial. The virus isn't a living being, it's just RNA that needs other cells to survive. It reminds me of a parasitoid wasp, which uses biochemical substances to change the behavior of other animals, eventually killing its hosts in the interest of its own

survival. When Charles Darwin saw that, he began to doubt the existence of God. How could God create such a malicious creature?

Are you a hypochondriac? A little bit. Actually, though, I wonder whether the joint pain I had in early February might be related to COVID-19, and whether I might already be immune.

Do you think you're in a risk group? Yes, especially since we've learned that overweight people have a relatively high mortality rate.

Have you adapted your behavior accordingly? I've followed the rules relatively well, yes. I only talk to my parents from the backyard. We've been delivering food to three households occasionally, so I've had to make sure that I'm not bringing them the virus as well.

You like to parody politicians in your work. Is it hard for you to take them seriously now?

Not at all. We can argue about specific details, but as far as I can see our government has responded well to the situation. I work in the arts, but in real life, Mike Müller fulfills his civic duties – but that doesn't keep me from imitating Viola Amherd. When she speaks High German

# Why didn't I think of that?

with a Valais accent, it simply begs to be imitated. [Editor's note: He starts imitating Federal Councillor Amherd.]

"Why didn't I think of that?"

There's a famous saying: "Writing about music is like dancing about architecture." Does the same go for humor, too?

Yes. You can't analyze comedy. If you have to explain a joke, it's dead.

Let's try anyway. During the lockdown, people were sending out videos, memes and jokes every single day. Coronavirus humor is practically a new genre. Your expert opinion? Many were incredibly good – they really made me laugh, and I sent a lot myself.

Why is the level of humor higher now than it was during the financial crisis?

Because it's a better topic. I can think of only one good funny movie about the financial crisis: "The Big Short." That's my dream by the way, to write a play that is funny, closely related to actual events while also being informative. That's precisely what I'm trying to do in my new project.

What makes coronavirus so funny?

It involves hygiene, and that's always good. Most of the toilet paper jokes at the beginning were really funny, right? Also, the situation was continually changing, so the jokes could change, too. And the lockdown itself was rather absurd. Almost everyone is healthy, but we're all cooped up at home. Many punch lines are essentially anarchic and absurd. I love that.

What jokes made a particular impression?

There was one very simple meme in German: "I'm looking forward to spending a few relaxing days at home when coronavirus is over." Brilliant.

A surprising number of funny videos have come from Spain. Why is that?

It's an interesting phenomenon. My theory is that we've sort of forgotten about Spain. Last year I was in Madrid with a director friend of mine. We spent an evening with some fellow actors, who were incredibly clever and funny. A lot of good jokes have come from Italy, too, although I've found some of them a bit sentimental.



Sometimes several different people send out the same video. Who deserves the recognition?

Actually it should be the first person, the person who discovered it. But I'm not so strict about that.

Does it sometimes make you jealous when you see a good video?

Of course. There's a Jamaican woman who plays the audio of a Trump speech as she stands in the kitchen, moving her lips as if she were speaking. That's funny, and so simple. Why didn't I think of that?

Your sketches are legendary, but you haven't done any about coronavirus.

Wouldn't that have been THE chance for an international hit?

I talked to my colleagues, and we decided just to keep our mouths shut. As a satirist, you need to have a certain attitude, you need to add something to the conversation. I wasn't able to do that, so I kept quiet.

You've been very active on Twitter, though.

Could social media replace the stage? Humor and theater will always find an

audience – if not a physical audience, then a virtual one. Right now I'm probably posting too much and getting into fights with journalists and politicians. I should pull myself together. And above all, I should start being funnier again.

Twitter can tempt us to write things that we later regret. How do you prevent that from happening?

The more emotional I am, the more typos I make – for that reason alone, I need to take my time and edit my tweets. Sometimes I also ask for a second opinion.

As a fictional character like Burri, I can go a lot farther. Burri says, "All Swabians eat small children," and the audience laughs.

When you're not in public, are you more like Burri?

If anyone saw the messages that Viktor Giacobbo and I send to each other, we'd be in deep trouble, practically every other day. But crossing the line is not the goal per se. The fundamental rule of humor is: "Go as far as something's still funny, and no farther." It's small-minded to be provocative just to make the audience wince.

Finally, we'd appreciate some film recommendations. What have you discovered during the lockdown? Mike Birbiglia, an American stand-up comic, is fantastic. He does his own thing, and he admits his weaknesses. The same is true of Neal Brennan and his "3 Mic" program. "Ozark" is an outstanding crime series, with wonderful actors. The kid on that show has a great career ahead of him. [Editor's note: actor Skylar Gaertner.] The series "Unorthodox" is a fairly loose adaptation of a book, and it works. "Joan Didion" is an excellent biopic of a writer; it does a very good job of weaving together her life and contemporary history.

All of your recommendations are on Netflix. The US streaming services are playing quite a dominant role; are they displacing other art forms?

Absolutely. But why should we complain about that? It just means that we need to invent something new. ■



**Mike Müller (56)**, who has a degree in philosophy, is a cabaret artist, actor and playwright. He is best known for his performances on the late night show "Giacobbo/Müller" (2008 to 2016), playing the main role in the TV series "Der Bestatter" (seven seasons) and appearing with Circus Knie. Müller has twice been awarded the prestigious Prix Walo and has also received the Swiss TV Film Prize (Schweizer Fernsehfilmpreis). He lives in Zurich.



Bulletin  
1/2020  
“Progress”



Bulletin  
4/2019  
“Our legacy”

**Kudos for your quality**

I have been an enthusiastic reader of Bulletin for two years now. Your in-depth articles cover topics that are both relevant and extremely interesting. I would like to compliment you on the quality of your analyses, which give your readers so much to think about.

Olivier de Molliens, Paris, France

**Keep it up**

Once again your articles were top-notch. They are enriching for all of your readers. Keep it up.

Otto Hartseil, Rödern, Germany

**If we find ourselves in the year 2200**

When I read Bulletin, I encounter viewpoints that I think I hold but cannot express myself. Now, with regard to development – isn't there something of a risk that scientific progress may not only save us, but destroy us as well? If a person from ancient Greece landed in the 18th century, they could probably handle all the new things around them, but what if they landed in the present? They'd be lost. And

since the pace of change is accelerating, the same could happen to us if we found ourselves, say, in the year 2200!

Ivo Livansky, Třeboň, Czech Republic

**How did Faust put it?**

I have been studying your Bulletin magazines carefully for many years now and have profited from it. This time I have a problem: The basic information on inheritance is written in a tiny font on a partially dark background. How did Faust put it?

“For what one has in black and white, one can carry home in comfort.”

Peter Metzger, Langnau

**We appreciate your letters**

Please send letters to the editor by email to [bulletin@abk.ch](mailto:bulletin@abk.ch) or by mail to Credit Suisse AG, Bulletin Editorial Team, DEKA, CH-8070 Zurich

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The novel coronavirus crisis has shown us how interconnected our modern world is, especially the economy. These articles are meant to help children better understand economic and financial relationships. It's important to Credit Suisse to foster skills that will be especially sought-after in the future.

# EVERYTHING <sup>(is)</sup> ECONOMICS

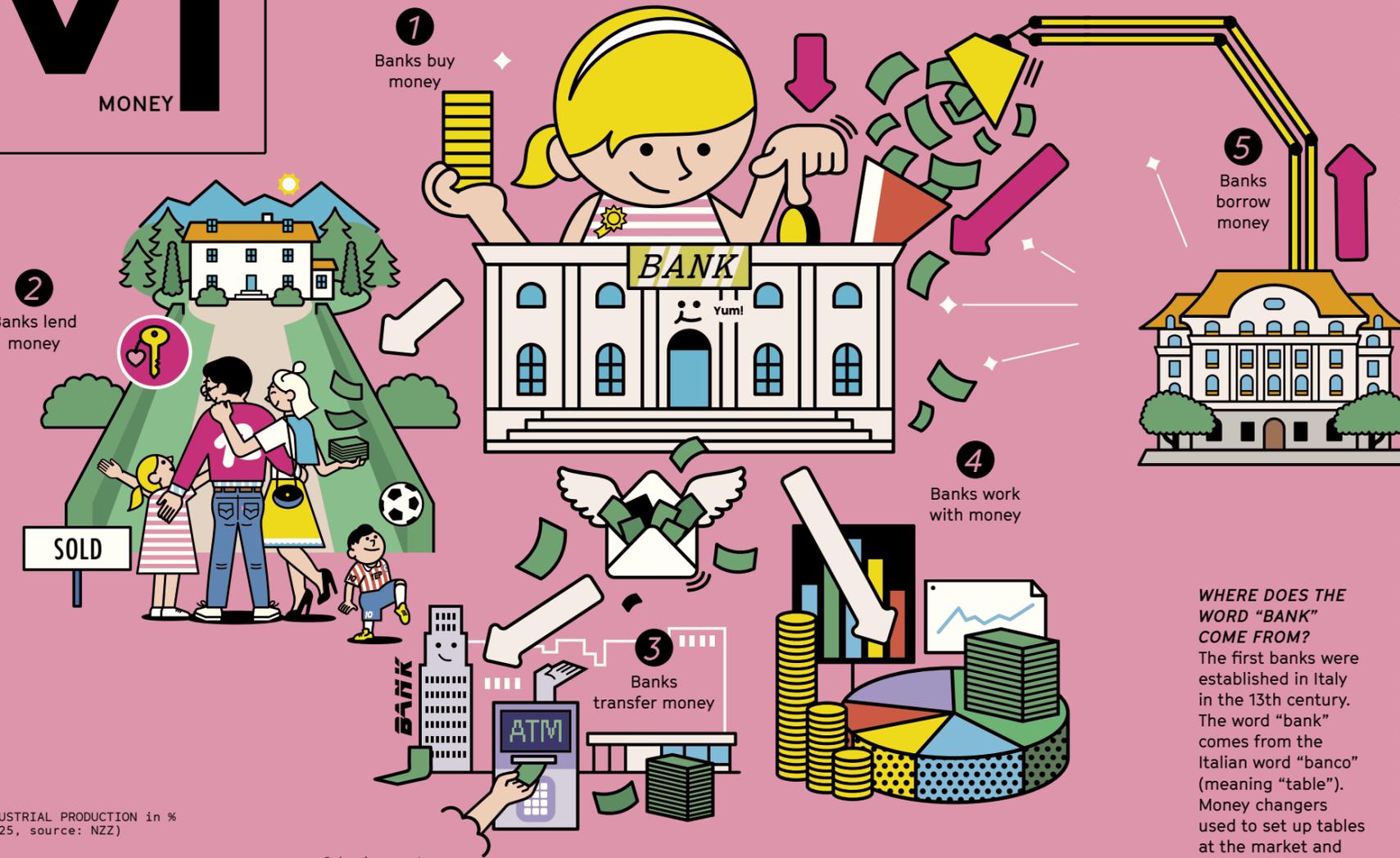


Texts  
MICHAEL KROBATH

Illustrations  
RAMI NIEMI

# MONEY

## So what do banks do?



Banks are the gears that drive the economy. They make sure that money goes where it is needed, and that people and companies can carry out their transactions securely. Here's how it works:

- 1 People bring their money to the bank for safekeeping. They put it in their savings account, where it earns money from the bank in the form of interest.
- 2 The bank then uses most of the money deposited by savers to provide loans. These include loans to people who want to buy a home, companies that need new equipment and entrepreneurs who want to develop video games. The bank charges a higher rate of interest on the loan than it pays to savers. Why? Because the bank must pay the people who work there and because it is taking on risk. For example, the homeowner may not be able to pay back the entire loan and the interest, but the bank still has to give savers their money back, with interest.
- 3 Banks make sure that people around the world can carry out
- 4 The bank advises its clients on how they can best invest their assets. The bank charges its clients fees for investment advice and asset management.
- 5 If there are large numbers of cash transactions, the bank may need more money than usual, for example, when it finances very large investments. In such cases, it borrows the money from a sort of "bank for banks." In Switzerland, this is the Swiss National Bank.

**WHERE DOES THE WORD "BANK" COME FROM?**  
The first banks were established in Italy in the 13th century. The word "bank" comes from the Italian word "banco" (meaning "table"). Money changers used to set up tables at the market and lend money.

**CREDIT**  
Many companies wouldn't exist without banks. For example, Nike founder Phil Knight was only able to import the first Japanese sneakers because a bank gave him a loan. He sold all of the sneakers, repaid the loan and then got another loan.



### CURRENCIES

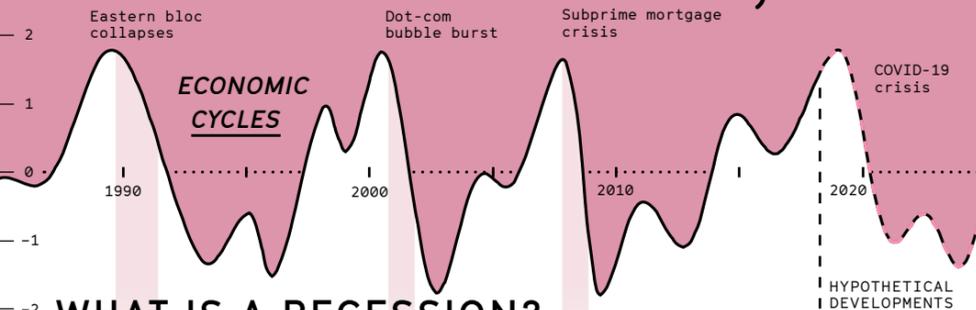
There are **162 CURRENCIES** around the world. Many countries have their own currencies; others share the same currency, such as the 19 countries that use the euro.

**THE OLDEST** currency still in use is the pound sterling, which has been used for more than 1,200 years.

The Swiss 1,000 franc note is **THE WORLD'S MOST VALUABLE BANKNOTE**, followed by the 1,000 dollar note in Singapore and the 500 euro note.

Sources: Credit Suisse Global Wealth Report; World Gold Council; European Central Bank; Forbes; OECD; SNB | Photos: Bible Land Pictures / Alamy Stock Photo; Roy Rochlin / FilmMagic / Getty Images

OECD INDUSTRIAL PRODUCTION in % (1990-2025, source: NZZ)



### WHAT IS A RECESSION?

COVID-19 has led to a lot of talk about a recession, because companies are making and selling fewer goods, and the economy is contracting. If the decline lasts longer than six months, many people could lose their jobs and that could lead to a recession. This is what many experts are now expecting will happen. After the lockdown ends, people will start buying clothes again, going to restaurants and taking vacations. This can help us to quickly get past the recession and allow the global economy to start growing again.

### "OLD MONEY"



#### HOW DID THE WORLD START USING MONEY?

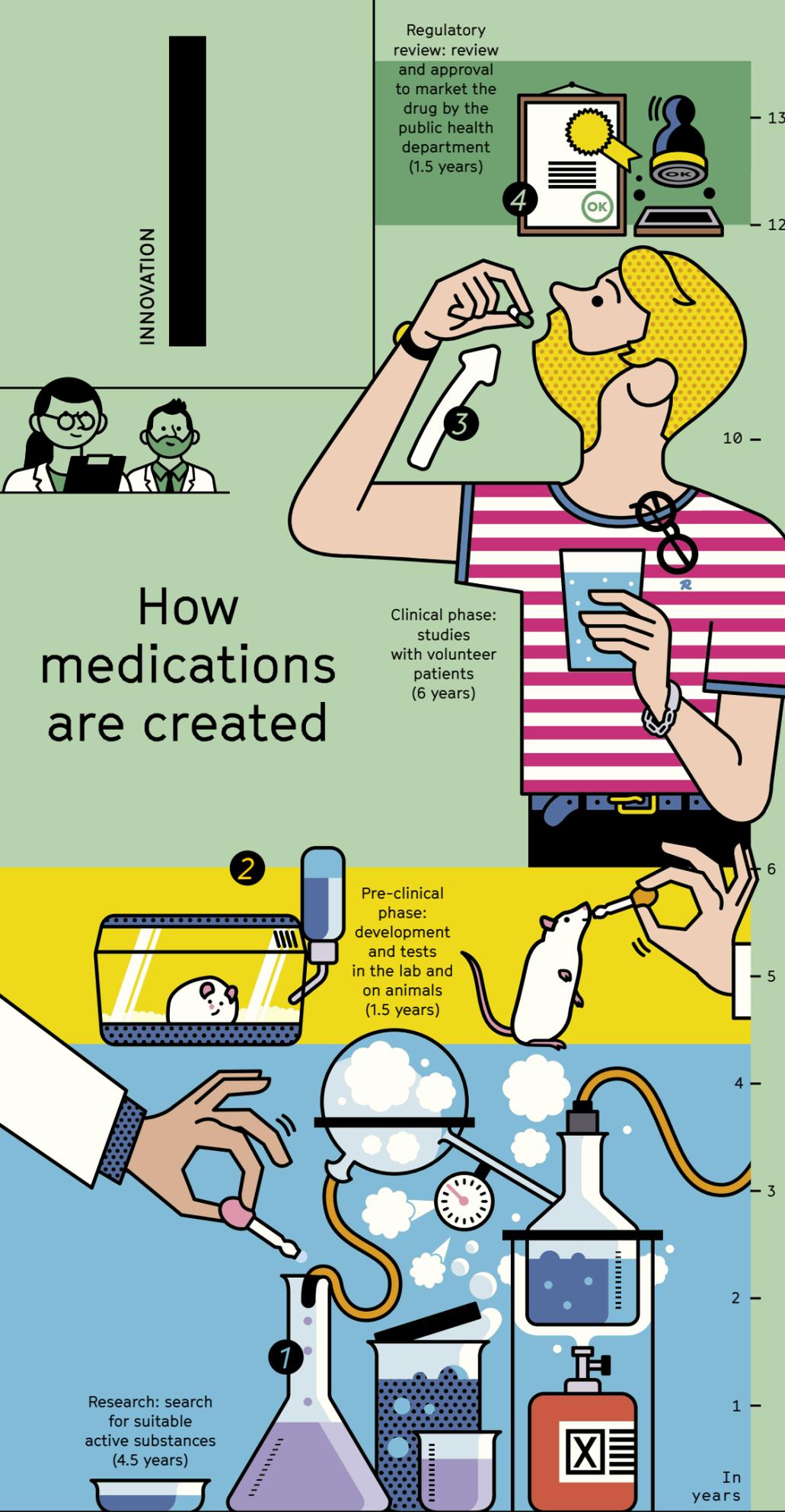
King Croesus of Lydia was famous for his wealth. He supposedly invented the world's first monetary system in the sixth century BCE: two types of coins made from gold and silver. That's why we still talk about people being "as rich as Croesus."

### NUMBER BY NUMBER

Global assets	360 trillion
Cash in circulation	360,000,000,000,000 \$
People who have less than 10,000 US dollars	7,600,000,000,000 \$
People without a bank account	2,900,000,000
Counterfeit euro banknotes in circulation	1,700,000,000
Billionaires worldwide	559,000
Cost to produce a Swiss banknote	2153
	0.4 CHF

Figures from 2019

# How medications are created



A century ago, people didn't even live to be 50 years old on average. Almost no one could afford a car. Antibiotics, computers and smartphones? They didn't even exist yet. Innovation, as the inventive spirit is called, helps to move the world forward and creates new jobs. And we all benefit. Creating a new product usually involves a lot of time, work and money.

Take, for example, the development of a new drug. First, researchers, working like detectives, look for a new substance that will cure an illness or alleviate the symptoms. Then, they must conduct careful tests before the drug can be approved and sold. On average, it takes 13.5 years for a new drug to come on the market (see infographic). Swiss pharmaceutical company Roche has calculated the effort: It takes 6,585 experiments by 423 researchers working more than 7 million hours. And success is very uncertain: Of every 10,000 substances that a company produces and tests, only one will ultimately receive approval. This all costs a lot of money: A single medicine can cost up to 2.6 billion Swiss francs. This helps explain why new medicines are so expensive.

## SOCIAL MEDIA

Innovations are changing our lives. Social media have been around for less than 20 years. But they are already used by half the people on Earth.

Every day,  
3,800,000,000 people...

- take 93,000,000,000 selfies
- send 60,000,000,000 WhatsApp messages
- watch 5,000,000,000 YouTube videos
- upload 300,000,000 photos to Facebook
- upload 250,000,000 Instagram stories

Sources: Roche; Pharmig; wearsocial.com; Ferrero; Blick; WELT | Photo: www.shu.today

## INVENTIONS

## YOUNG ENTREPRENEURS



Source: Ball State University/YouTube

**INVENTED BY CHANCE**  
Inventions are sometimes created by accident. For example, Nutella exists because in the summer of 1949 a bar of chocolate melted before an Italian confectioner was able to use it. Penicillin and rubber were also discovered by accident.

**UNDERESTIMATED INNOVATIONS**  
Good ideas aren't always recognized right away. Initially, the invention of the automobile by Carl Benz in 1886 was not well received. German Kaiser Wilhelm II even said: "I believe in the horse; automobiles are only a passing fad." There are now more than 1.2 billion cars around the world.

**RISK-SEEKING INVENTORS**  
Successful entrepreneurs are often willing to take risks. Cheong Choon Ng invented the rubber bands known as Loom Bands, and in 2011 he used his family's entire savings of 9,000 Swiss francs to found a company. Three years later, the company was worth more than 100 million Swiss francs.

### CHILD'S PLAY!

At age 12, Shubham Banerjee, of California, invented a Braille printer using Lego and founded a company based on this idea in 2014.

**HOW DID YOU COME UP WITH THE IDEA?** I was looking for a science fair project. I read online that a Braille printer costs more than 2,000 US dollars, which is way too expensive for many blind readers. I decided to do something about it.

**HOW?** Using a Lego robotics kit, I built a printer and programmed it so it could punch the Braille letters on the paper. I worked on it for several months to fine-tune it. The seventh version worked, and I won the science competition.

**YOU AND YOUR PARENTS THEN FOUNDED A COMPANY IN WHICH INTEL, THE CHIP MAKER, HAS ALSO INVESTED. WHAT DID YOU DO WITH THE MONEY?** I improved the prototype and made it even cheaper. It now only costs 350 US dollars. I hope this will help even more blind people around the world learn to read.

**ANY TIPS FOR YOUNG INVENTORS?** Don't be afraid to ask questions. Don't be afraid of criticism. And never give up.

## PATENTS



### THE CASE OF THE TELEPHONE

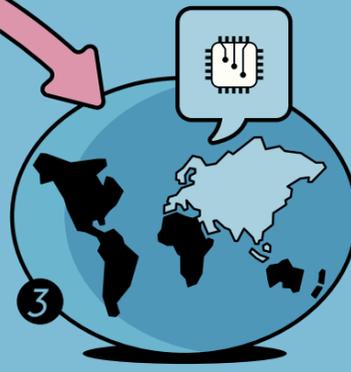
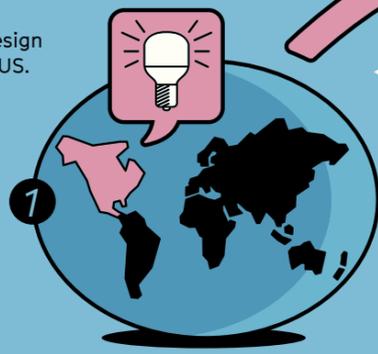
Inventors can protect their ideas with a patent for 20 years. The importance of this system can be seen with Alexander Graham Bell, who obtained a patent for the telephone in 1876. Even though a rival inventor had presented a "telephone-like" device 15 years earlier, he didn't have it patented. Another inventor didn't have the 250 US dollars needed to file his patent, and yet another arrived at the patent office too late: Bell was fifth in line and his competitor was 39th.



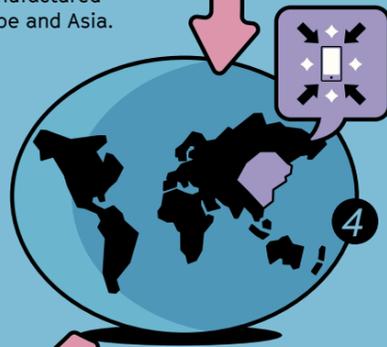
# A smartphone travels around the world

The 28 materials in a phone come from 19 countries around the world.

The idea and design come from the US.



The individual parts are manufactured in Europe and Asia.



They are then assembled and packaged mainly in China.



Marketing and sales take place in the US and Europe.



Thanks to globalization, even people from distant countries can sell their products to us, whether tulips from Tanzania, for example, or cocoa from Brazil. Globalization has improved the overall standard of living for very many people around the world.

Have you ever thought about where your smartphone comes from? Making a smart phone involves people and materials from all over the world, and a smartphone is a good example of what we call globalization. This word means to make something "global" or worldwide. Indeed, smartphones only exist because people from different continents work together and conduct commerce.

The ① idea of combining the telephone and the computer and the design came from the US. The ② 28 materials for an iPhone 6S come from 19 countries, mostly in Africa, but also in Asia, South America and Australia. These raw materials are used to make the ③ individual parts such as the case and the chip, in Asia and Europe. The phones are ④ assembled and packaged mainly in China, with ⑤ marketing and sales in Europe and America. The smartphone is sold around the world.

## LABOR MARKET

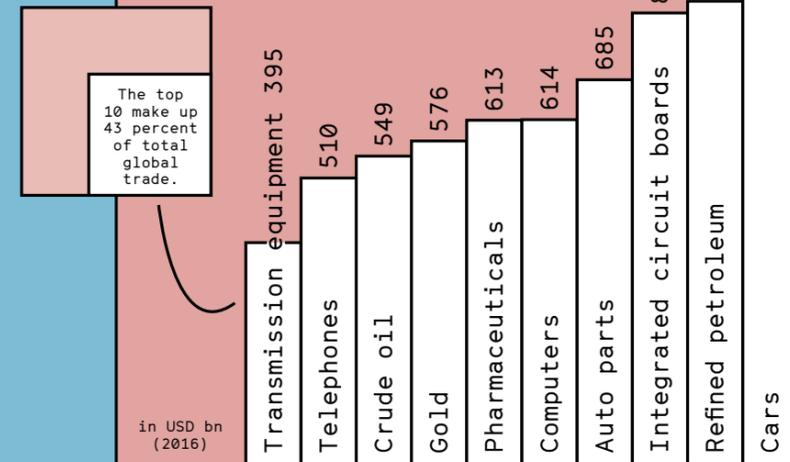
**ONE LEAGUE, 59 NATIONS**  
Globalization also means that many people can work abroad, and nearly 300 million people do. Professional football is a good example of this. In 2019, the English Premier League had 290 foreign professionals (58 percent) from 59 different countries, and Virgil van Dijk, who comes from the Netherlands but plays for Liverpool Football Club, was named Footballer of the Year.



## TOP 10

### THE TEN MOST TRADED GOODS IN THE WORLD

Global trade amounted to 59 billion dollars at the end of World War II. Since then, import duties have been lowered, transport has become cheaper and the internet has simplified commerce. The value of goods traded was 16 trillion dollars in 2016. The top 10 were:



## TRANSPORT

### THE FIRST ELECTRIC SHIP

Container ships transport more than 70 percent of all goods, and without them global trade in its current scope would not be possible. The disadvantage: Ships are powered with diesel, which pollutes the ocean and the air. Electric ships may be an environmentally-friendly alternative. Pictured is the Yara Birkeland, the world's first autonomous electric container ship (prototype). It can transport 120 containers – and is totally emission-free.



Sources: lifewire.com; Statista; transfermarkt.de; Swisscom; UNCTAD; WELT | Photos: Cosmin Iftode/Alamy Stock Photo; uavpic.com

## CONSUMPTION

### 30 CENTIMES INSTEAD OF 15 FRANCS

In general, prices have fallen due to innovation and competition. Such as when you make a phone call. A three-minute phone call from Switzerland to the US cost a hefty 15 francs in 1974 – but that same call today is only 30 centimes.

### SUSHI INSTEAD OF SCHNITZEL



Globalization has also changed what and how we eat. We now can choose from more diverse and interesting foods than ever before. For example, in Germany, only 35 percent of restaurants serve local cuisine, while the rest offer pizza, kebabs, sushi and more.

### SHOPPING ONLINE INSTEAD OF AT THE NEIGHBORHOOD STORE

The internet has also given rise to e-commerce, and more and more people are shopping online. In 1990, three billion packages were sent worldwide, and this number rose to almost 15 billion in 2018.

# Q

QUIZ

## Ten questions about the economy

How much do you know?

1

How much do you think one million euros in 10 euro notes weighs?

- A 72 kg
- B 191 kg
- C 1,200 kg

2

What are most banknotes now made from?

- A Bark
- B Cotton
- C Plastic



3

What is the value of all goods sold by a company called?

- A Profit
- B Balance sheet
- C Turnover

4

When are strawberries the cheapest?

- A Large supply and low demand
- B Small supply and high demand
- C In winter

5

Most companies in Switzerland have fewer than 250 employees. What percentage of jobs do they account for?

- A 22 percent
- B 44 percent
- C 66 percent

6

Let's say you have 100 francs in your savings account, and it earns 2 percent interest annually. If you don't withdraw anything, how much money do you have in your savings account after five years?

- A Less than 102 francs
- B Exactly 102 francs
- C More than 102 francs

7

What is a creditor?

- A Someone who has a credit card
- B Someone who has given something (like money) and may ask for it back (from the borrower)
- C Someone who was taken for a ride on a transaction because he was gullible

8

The interest rate on your savings account is 1 percent, and the rate of inflation is 2 percent per year. In one year, will you be able to buy more with this money, the same amount or less than you can today?

- A More
- B Exactly the same
- C Less

9

If the exchange rate for the Swiss franc rises, then...

- A ... imported goods become more expensive in Switzerland
- B ... Swiss goods become more expensive abroad
- C ... trips abroad become more expensive for the Swiss

10

In order for the state to be able to pay for schools and hospitals, people and companies pay various taxes. What is the name of the tax that you automatically have to pay when you buy a pair of sneakers?

- A Value added tax
- B Trade tax
- C Property tax

The solutions can be found here:

1A, 2B, 3C, 4A, 5C, 6C, 7B, 8C, 9B, 10A

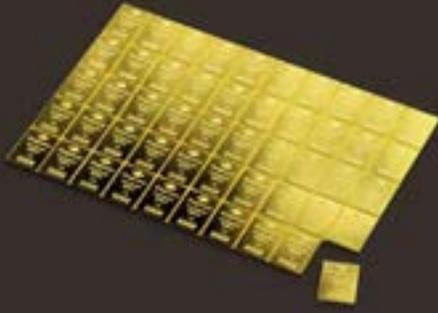
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