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Power Up Switzerland

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This report is based on an online survey of more than 400 business representatives conducted in January 2020. Most participants were Board members and CEOs, but the sample also included economists and senior civil servants. Most Board members were surveyed within the framework of the latest edition of the swissVR monitor, conducted by swissVR, Deloitte AG and Lucerne University.

Deloitte would like to thank all those who took part for their valuable input.

Editorial deadline: 15 June 2020

# 1. Foreword

Switzerland has been a model student. Over the past 200 years, the former 'poor man of Europe' has become one of the world's wealthiest countries, a transformation achieved with almost no natural resources. Virtually no country in the world has higher levels of prosperity — or more citizens' rights. There is no doubt that Switzerland is thriving, and that is unlikely to change, even in the aftermath of the COVID-19 pandemic.

Model students, though, can be prone to rest on their laurels and bask in their success. If you have reached the top, why continue to work so hard? That is a dangerous attitude: if you relax and stop trying, sooner or later you will lose that coveted place at the top of the class and slip down the rankings.

Slowly but surely, Switzerland seems to have arrived exactly at this point. Each year, the World Economic Forum (WEF) ranks countries by their competitiveness. Switzerland topped the table for many years, but in 2018 it slipped to fourth place, falling further, to fifth place, the following year.

Other surveys and rankings paint a similar picture. Years ago, economists warned that Switzerland's low productivity growth should be a cause for concern. And the COVID-19 crisis has done nothing to allay this concern. Indeed, in some areas of economic life, the state's failure to act has been laid bare, revealing a country that is less than modern and innovative. One such example is the use of fax machines to notify the Federal Office of Public Health (FOPH) of COVID-19 cases. Another is that certain aspects of labour legislation still do not reflect the digital age. And these are just two examples among many. Rather than simplifying processes and regulation, the Swiss government has actually increased regulation in many areas.

Business does not escape with a clean bill of health either. Companies have not always been proactive enough, such as building up a financial cushion or putting conditions in place to enable their staff to work from home.

If Switzerland is to regain its reputation and reclaim its place at the top of the class, it needs reform — also far-reaching reform. It must seize the moment and, as well as the short-term measures needed to tackle the COVID-19 crisis, also take the long-term measures that will make the country and its economy fit for the coming years and decades.

Deloitte is keen to play its part: based on a survey of more than 400 business experts, we have identified eight key areas where action is needed. For each of these eight areas, we have developed a set of measures to boost Switzerland's competitiveness and that of the companies based in the country — with the goal to "Power Up Switzerland".

The measures we propose are addressed to policymakers, who must step up to improve the necessary framework, but also to businesses, that must also make their own contribution to Switzerland's long-term success. Businesses should take action to enhance not only their efficiency but also their resilience, enabling them to respond rapidly and flexibly to a changing reality. This is particularly important against the backdrop of a pandemic, worsening climate change and increasing trade and cyber wars.

We would like to thank the executives who took part in the survey and shared their view of the Swiss economy with us.

We hope you enjoy reading the report.

**Reto Savoia,**  
CEO Deloitte Switzerland

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## 2. Key findings



### Switzerland's success story: From Europe's 'poor man' to economic miracle

Switzerland has what many other countries would like to have: a high level of prosperity across its population. Despite its small domestic market, the country has been one of the world's 20 largest economies for many years. That was not always the case, though: Switzerland has no natural resources and was long considered the 'poor man' of Europe until, in the late 19<sup>th</sup> century, it began its gradual transformation into one of the world's most competitive and successful economies.



### Swiss model of success under pressure as competitiveness declines and challenges increase

Switzerland's model of success is coming under increasing pressure, a trend that started even before the COVID-19 crisis. Productivity growth has been relatively low for a number of years, and competitiveness is also declining: Switzerland has slipped down the World Economic Forum (WEF) and Ease of Doing Business rankings, for example. To compound these problems, the country now faces not only the impact of the COVID-19 crisis but also major challenges as a business hub. If these challenges are not tackled promptly, Switzerland's competitiveness could decline further, exacerbating its weak economic growth.



### Time to act

It is time for Switzerland to act. In the short term, government and business alike need to divert their resources to tackling the economic crisis resulting from the COVID-19 pandemic. But more action is needed in the longer term to bring about urgent far-reaching reforms. Based on a survey of more than 400 managers conducted in January 2020, Deloitte has identified eight areas for urgent action and has listed measures that both government and business could implement to bolster competitiveness and help ensure the country's long-term success.





### Eight areas for action

The eight areas Deloitte has identified illustrate where government and business have the greatest scope to boost Switzerland's long-term competitiveness and productivity. It is clear that if the survey had been carried out during, rather than just before, the COVID-19 pandemic, the findings would have been a little different. Current discussions with business representatives show that many companies have reviewed their priorities, at least in the medium term. However, the eight areas described here remain fundamental. They are, and will continue to be, crucial to the long-term success of the country and the businesses based here. And they paint a picture of major potential for improvement.

### Recommended measures

For each of the eight areas identified, the study proposes specific measures — addressed both to policymakers and to companies — that will boost competitiveness, productivity and get the Swiss economy back on track. The table below gives an overview, the complete list of measures can be found in section five.

	 <b>Policymakers</b>	 <b>Businesses</b>
<b>Entrepreneurship and Start-up culture</b>	Reduce barriers, bring down taxation and include entrepreneurship in school curricula	Create a genuine culture of tolerating mistakes and develop new forms of cooperation
<b>Innovation</b>	Reduce burden of regulation, be a better role model and improve data security and data administration	Promote innovation capacity through maturity analysis, ecosystems and mobile solutions whilst also prioritising cyber security
<b>International trade</b>	Dismantle barriers to trade and broaden trade agreements	Review and optimise supply chains and location strategy
<b>Talent and Skills</b>	Adapt the framework for tackling the looming skills shortage and bring labour law in line with the digital age	Focus strategically on new forms of employment and on untapped and alternative pools of labour
<b>Research and Development</b>	Move away from industrial policy and towards research agreements, clusters, measures to promote talent and collaboration	Promote agile development processes, technology partnerships and customer-centred feedback rounds
<b>Tax environment</b>	Promote and maintain tax competition and the relationship of trust between taxpayers and tax authorities, and make the tax system more efficient	Create more openness and transparency with external agencies and step up digitalisation of internal processes
<b>Sustainability, Infrastructure and Energy</b>	Formulate a clear vision for Switzerland as a sustainability hub, create greater responsibility for pollution and unsustainable practices, and improve security of supply	Devise specific definitions, clear goals and a coherent strategy for sustainability and new approaches to infrastructure and energy by instigating mobility budgets for employees
<b>Financial markets</b>	Improve the resilience of the financial centre's competitiveness, achieve smart regulation for fintechs and cryptocurrencies, and draft clear standards for sustainable finance	Improve digital maturity, use of cloud computing solutions and liquidity management

# 3. Switzerland's success story: From Europe's 'poor man' to economic miracle

More than ten years ago, a senior foreign policy columnist for the Financial Times wrote: *For nations, small is beautiful. ... Look at almost any league table of national welfare, and small countries dominate*.<sup>1</sup> His comment is particularly relevant to Switzerland.

## Small country but major economy

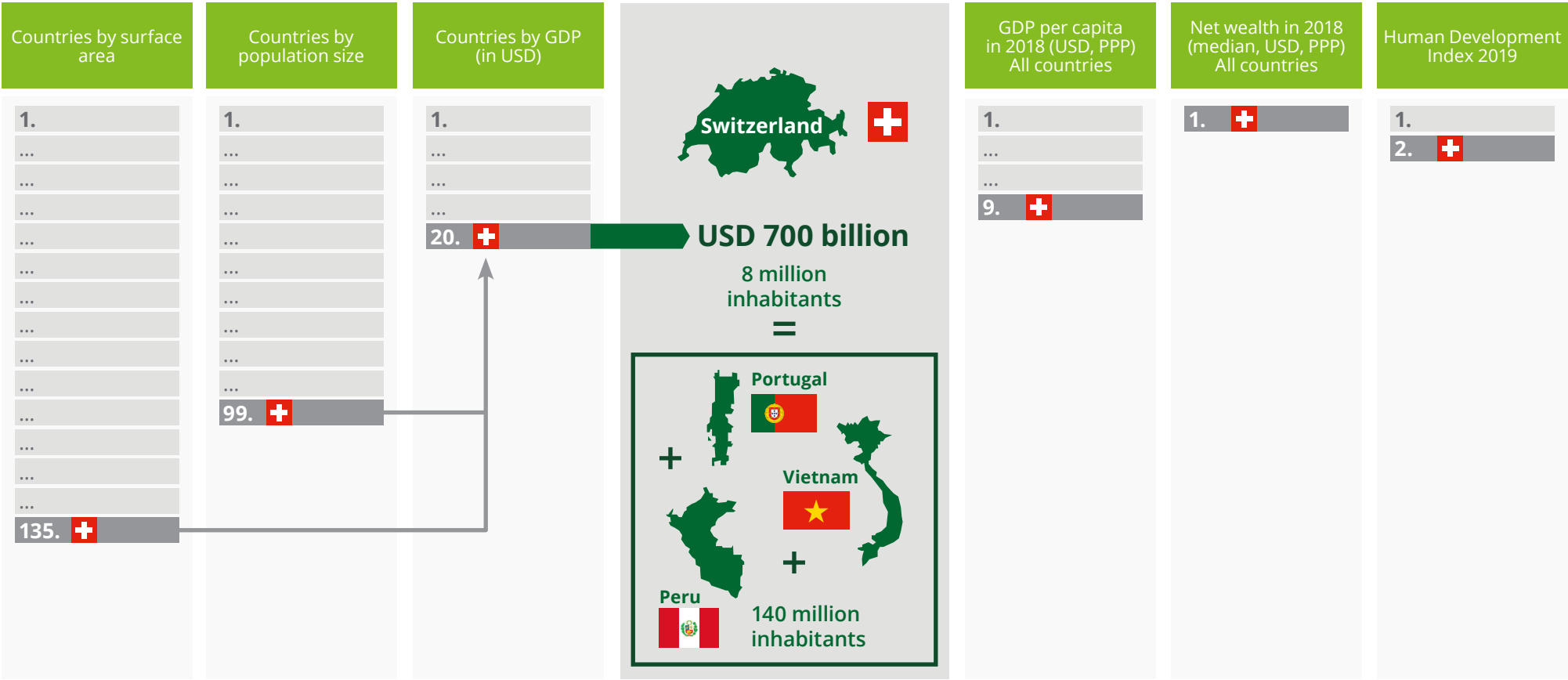
On many indicators, Switzerland is a small country. It ranks 135th out of 220 countries worldwide in terms of surface area (see Chart 1)<sup>2</sup> and only slightly higher, at 99th, in terms of its population.<sup>3</sup>

Switzerland punches above its weight in terms of the size of its economy, though. As measured by gross domestic product (GDP), it is one of the world's 20 largest economies.<sup>4</sup> For a small country with such a small population, Switzerland is disproportionately wealthy.

To put this wealth in context, Switzerland has a population of just eight million, but in 2018 its GDP was the equivalent of that of Peru, Portugal and Vietnam combined, which have a total population of 140 million.

This combination of a small country and a major economy means that the Swiss population is very prosperous. In terms of purchasing power parity (PPP), earnings per capita average USD 70,000 a year, this figure is higher in just eight countries globally.<sup>5</sup> Switzerland actually tops the league table for median per capita wealth at USD 230,000.<sup>6</sup> And the Human Development Index, which takes a broader approach to measuring prosperity including life expectancy, education and income, ranks Switzerland second in the world.<sup>7</sup>

Chart 1. Switzerland's size and economic strength — international comparison



Source: World Bank 2018, World Population Review 2019, Credit Suisse 2018, United Nations 2019

Note: PPP = purchasing power parity

### Equitable distribution of incomes

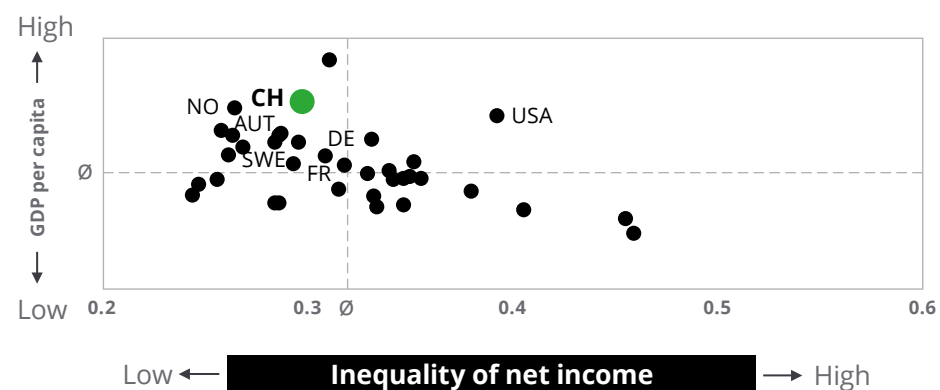
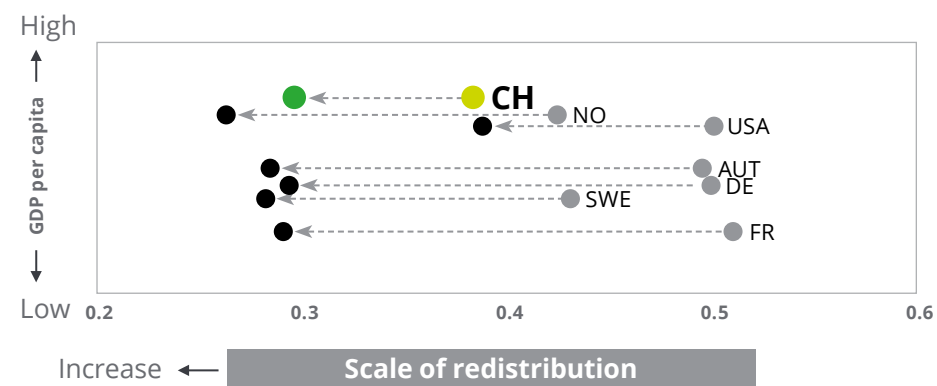
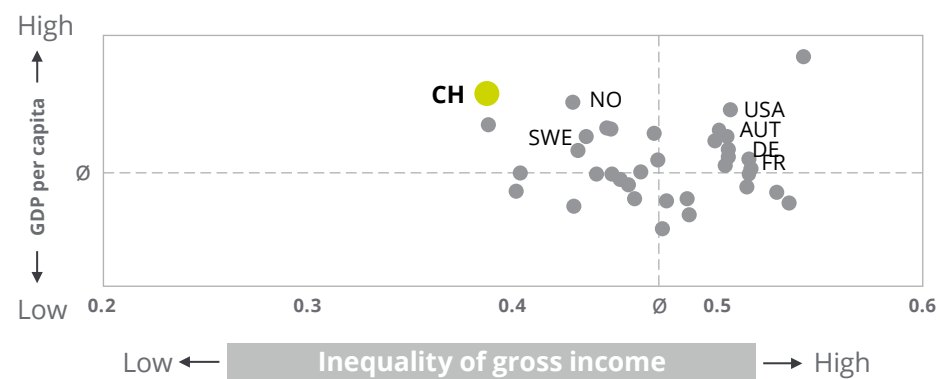
Whilst Switzerland is one of the world's wealthiest countries, how well is this wealth distributed? Pre-tax or gross income is surprisingly evenly distributed: as Chart 2 shows, Switzerland, along with Iceland, has the lowest inequality level of all 34 OECD countries.

Figures for net income — after deduction of tax and including transfer payments, such as pensions, sickness insurance contribution reductions and social security benefits — show Switzerland slightly underperforming other OECD countries. But the relatively even distribution of income in the country is still true even for other indicators, such as the ratio of the wealthiest 10% of the population to the poorest 10%. Almost every set of statistics on income distribution shows remarkable consistency: indeed, whilst the divide in some western economies may have widened over recent decades, in Switzerland it has remained largely stable.<sup>8</sup>

In terms of wealth distribution, the situation initially looks rather different. Compared with many other OECD countries, wealth is more unevenly distributed in Switzerland. However, OECD wealth statistics convey a somewhat distorted picture, as the figures for Switzerland do not include the country's 'second and third pillar' pensions (occupational and private pensions respectively) and do not adequately reflect the market value of properties.<sup>9</sup> Some observers estimate that including second and third pillar pensions would substantially reduce the concentration of wealth, placing Switzerland in a mid-ranking position.<sup>10</sup> As with income, Switzerland remains a land of largely equitable distribution of wealth.



Chart 2: Income and inequality

**Note:**

The y-axis in all three graphs represents per capita income as measured by GDP per capita. The x-axis depicts inequality of income. The first graph depicts gross income measured by the Gini coefficients before tax and transfers (that is, before redistribution). The graph below depicts net income measured by Gini coefficient after tax and transfers (that is, after redistribution).

In the right graph, the x-axis depicts the difference between the pre-Gini distribution (gross income) and post-Gini distribution (net income). It therefore shows the scale of redistribution. The longer the arrow, the greater the redistribution.

The Chart includes all OECD countries except Luxembourg.

### 'A capitalist paradise'

Switzerland has what many other countries would like: high levels of prosperity and a relatively even distribution of wealth, with the highest per capita income of any OECD country and no disparity in the distribution of net incomes. So how does it achieve this? One key factor is the relatively equal distribution of gross income (see Chart 2). Switzerland's dual education system and efficient labour market ensure that participation rates are high, and salaries are good for many people, with lower salaries governed by sector-level collective agreements negotiated by employers and unions.

Because the labour market ensures relative wage equality, Switzerland has less need to redistribute income or, to put it another way, it can achieve a similarly even distribution of net incomes compared to Austria, France, Germany and Sweden with considerably less redistribution (see Chart 2). This enables it to keep its social security net small and limit market interventions and taxes. And this in turn ensures that the country is, and remains, attractive to global businesses.

Author and economist Ruchir Sharma pointed out last year in an article in The New York Times that Switzerland is a substantially better

role model than the Scandinavian countries that US presidential candidates are so keen to reference approvingly.<sup>11</sup> He points to its higher per capita prosperity and lower levels of inequality, noting in particular that it has achieved this position without high taxes or cumbersome bureaucracy. Switzerland, the article concludes, is a less socialist but more successful 'capitalist paradise'.

### Switzerland, the 'poor man'

However, Switzerland has not always been a model of economic success, and towards the end of the Middle Ages, it was anything but a paradise. Indeed, it was considered the 'poor man of Europe', as authors James Breiding and Gerhard Schwarz point out in a much-cited book on the economic history of Switzerland.<sup>12</sup> As recently as 200 years ago, they argue, Switzerland was far from its current position as one of Europe's wealthy countries on three key indicators: GDP, pay and migration.

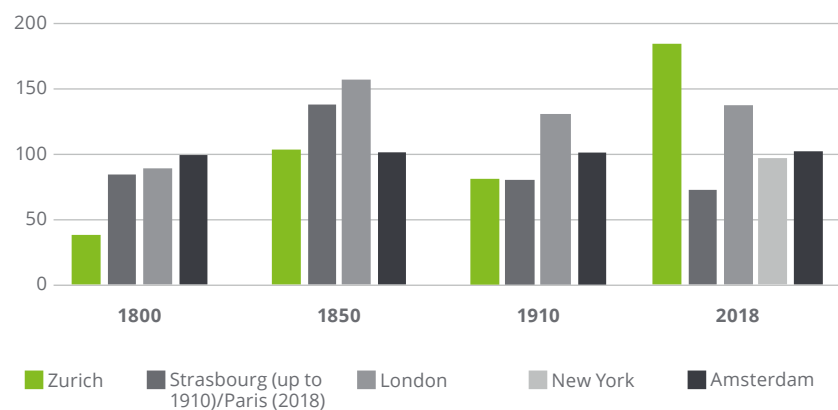
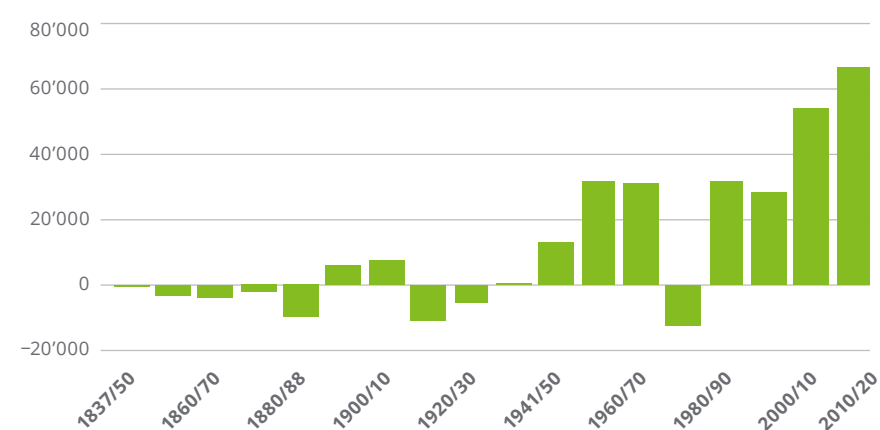
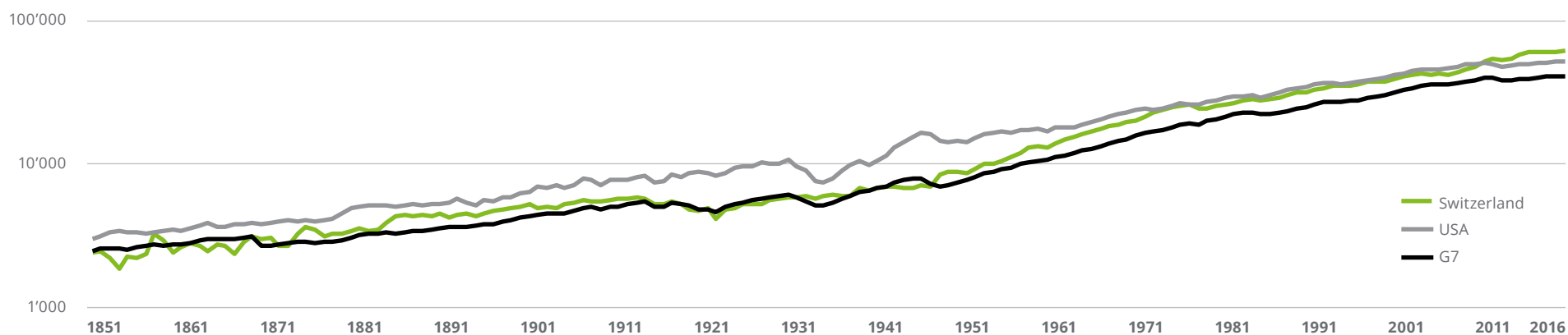
Historical data from the Maddison Project show that in the mid-19<sup>th</sup> century, the prosperity of the Swiss population as measured by GDP per capita was lower than that of the current G7 countries and markedly lower than in the US. Chart 3 shows real GDP per capita as a logarithmic scale. Unlike the linear scale usually deployed to portray such data, this

scale illustrates the differences in the small values along the left-hand axis. Until the early part of the 20<sup>th</sup> century, the gap between Switzerland and the US continued to widen, narrowing only in the 1950s and 1960s. By the early 2000s, Switzerland overtook the US.

Switzerland performed even more poorly on pay, as a University of Oxford research paper shows.<sup>13</sup> The paper looks at real wages of construction workers between 1800 and 1913, and as Chart 3 shows, construction workers' pay in the city of Zurich was around half of the levels paid in the other European cities surveyed. Over subsequent decades, Zurich closed the gap somewhat, but as late as 1910, it was still underperforming comparable cities. Today, as a UBS study shows, that position is reversed, with construction workers in Zurich earning twice as much as their counterparts in most other cities.<sup>14</sup>

Migration is the third indicator of national prosperity. A good rule of thumb is that poor countries usually have high levels of emigration, whereas wealthy ones have high levels of immigration. Chart 3 shows that this is the case in Switzerland. The migration balance (immigration minus emigration) was negative for many years: in the 19<sup>th</sup> century tens of thousands of workers left Switzerland, mostly

for North America or neighbouring countries. As well as a desire to resettle in another country, this was mostly a result of poverty and a poor economy in a predominantly agricultural country.<sup>15</sup> From the mid-20<sup>th</sup> century onwards, however, the picture changed markedly and high levels of migration reversed the situation to create a positive migration balance, with higher immigration than emigration.

**Chart 3: Historical economic indicators****Real wages** (Index: Amsterdam=100; construction workers)**Migration balance** (Immigration minus emigration)**Real GDP per capita** (USD, PPP, logarithmic)

Source: Graph top left: Studer (2013), UBS (2019); graph top right: BFS; Historical statistics of Switzerland; graph below: Maddison Project, Database (2018).

### A varied recipe for success

How did a small, poor country with few, if any, natural resources manage to become so wealthy? Put another way, what are the factors accounting for Switzerland's economic success? It is clear that its recipe for success is varied and complex, and as is often the case, involved a number of factors.

The country's political institutions have undoubtedly played a major part. Economists Daron Acemoglu and James Robinson explained in detail in their book *Why Nations Fail* just how important institutions are to a country's prosperity.<sup>16</sup> They argue that long-term economic prosperity is the result of inclusive institutions. A broad democratic distribution of power creates the conditions for a market economy and competition.

Switzerland scores particularly well on this measure. It is a highly federal country with a bottom-up institutional structure and operates on the principle of subsidiarity. This limits the power of the federal state and keeps intervention and the burden of taxation low.<sup>17</sup> Federalism, along with the principle of wide civic involvement in public life, also boosts Swiss citizens' identification with their state, whilst its (semi-) direct and consensus-oriented democracy produces a broad distribution of power between politicians and the people, and between the political parties themselves. There is no other country in the world where the government has been a coalition of four parties for decades.

Another element is the long-standing social partnership that has characterised the employer-employee relationship. Taken together, these characteristics create a very high level of stability and this was evident during the COVID-19 crisis.

As well as the benefits of its political institutions, specifically its federal structure, Switzerland has also long enjoyed conditions that favour business, and these factors together have contributed to the country's economic success.<sup>18</sup> A free market economy and unfettered entrepreneurship have played a crucial part for many decades and are reflected in the country's relatively liberal labour market with the absence of a state industrial policy, as well as relatively low corporate taxation.

Swiss businesses have long been able to access skilled labour because politicians and economists have attached particular importance to the quality of the education and training institutions. In the 19<sup>th</sup> century, Switzerland was a pioneer in the area of national and technical education. The Swiss Federal Institutes of Technology (ETHs), then known as 'polytechnics', date back to this time, as does the model of vocational training, which is rooted institutionally in what is known as a 'federal decision'.<sup>19</sup>

Its well-developed infrastructure, particularly rail and road networks, is a further factor in Switzerland's economic success.

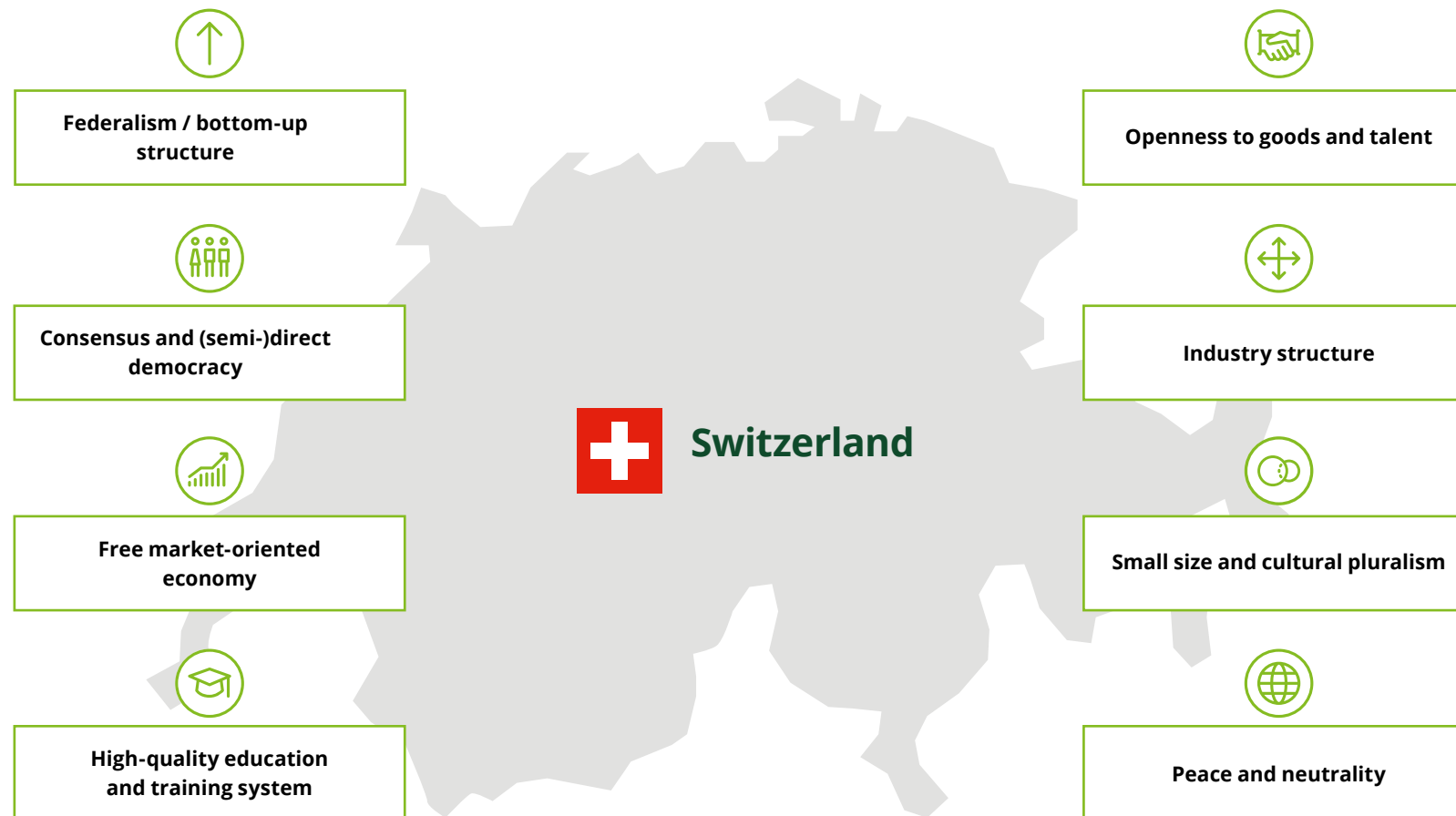
Another major contributor to the country's prosperity is its international openness, not only to goods and services but also to free movement of labour. An early focus on exports kept innovation and productivity high, but Switzerland also attracted innovators. In the 16<sup>th</sup> century, Huguenots driven out of France brought their expertise in the watch industry to western Switzerland, whilst in the 19<sup>th</sup> century, British visitors laid the foundations for the tourism industry. And later the same century, immigrants set up what are now some of the world's largest companies, such as ABB and Nestlé.<sup>20</sup>

This openness has been a major factor in keeping the Swiss economy diversified, a particularly major advantage in difficult economic times. Switzerland has also benefited from having virtually no natural resources: countries with a significant commodities sector often find it difficult to achieve structural change,<sup>21</sup> and there is some truth to the statement that resources can be a curse rather than a blessing for a country.

In addition, Switzerland has unquestionably benefited from its geographical position, its size and its cultural diversity. Because the domestic market is small, Swiss companies have long had to export to neighbouring countries. Linguistic similarities with large domestic markets such as those of Germany, France and Italy have made this easier, but the reverse is also true: Switzerland's linguistic diversity has made it easier to integrate workers from neighbouring countries.

Throughout the 20<sup>th</sup> century, Switzerland was largely spared the damaging aftermath of war. Its neutrality is likely to have been a major factor, but an element of luck and diplomatic skills played a part, too.<sup>22</sup> During the Second World War, policymakers and businesses in Switzerland took a pragmatic approach, favouring economic interests over ideological commitment in most cases. Some 50 years after the end of the war, the country and its banks came under enormous international pressure, damaging its reputation and requiring it to come to terms with its history.<sup>23</sup> Switzerland's banking secrecy and illicit financial flows are repeatedly debated in public but they have had a negligible impact on the country's general economic success: even at its height, untaxed income has never accounted for more than 1% to 3% of Swiss GDP.<sup>24</sup>

Chart 4: Drivers of Switzerland's economic success



Source: Deloitte Research

## 4. Model for success under pressure as competitiveness declines and challenges increase

There is little doubt that Switzerland is one of the world's most successful economies. However, it is also clear that this prosperity is fragile.

The COVID-19 pandemic has made it clear to everyone just how vulnerable even a highly developed and successful economy can be. And whilst the crisis found nearly every country unprepared, Swiss politicians and economists also have questions to answer. In short, the crisis has showed that 'all that glitters is not gold' — even in wealthy Switzerland.

### The COVID-19 shock

Long before the COVID-19 outbreak, policymakers in Switzerland were insufficiently proactive. They neglected to sufficiently adapt the regulatory framework to the digital age, such as the labour legislation — something that has become particularly important now, with so many employees suddenly working from home. In regard to digitalisation, some areas of government are no better: the Federal Office of Public Health admitted that it is still being notified of COVID-19 infections by fax, which does not reflect well on the state of e-government in Switzerland.<sup>25</sup>

Policymakers have also been insufficiently proactive in simplifying regulation across the board. Rather than easing the burden

of regulation for companies, making the tax system more efficient and simplifying the rules, Switzerland has steadily increased regulations in recent years.<sup>26</sup> Meanwhile, the current crisis serves as a reminder of how administratively complex and economically costly the Swiss tariff system and the corresponding price increase of imported goods are.<sup>27</sup>

Business also needs to take action. Companies in some sectors have not been sufficiently proactive, as the proliferation and management of working from home in response to the current crisis has shown. Flexible working in terms of both location and hours offers many advantages and would be easily achievable for a majority of Swiss employees, but many companies had not put the necessary technological, corporate and organisational measures in place. The same applies to cyber security. Cyber attacks have risen during the COVID-19 crisis because many companies simply did not have adequate protection. Global supply chains are another area in which the COVID-19 pandemic has highlighted shortcomings. In some cases, they were not sufficiently optimised, meaning that it was difficult to adapt them rapidly in response to the crisis.

### Weak productivity growth

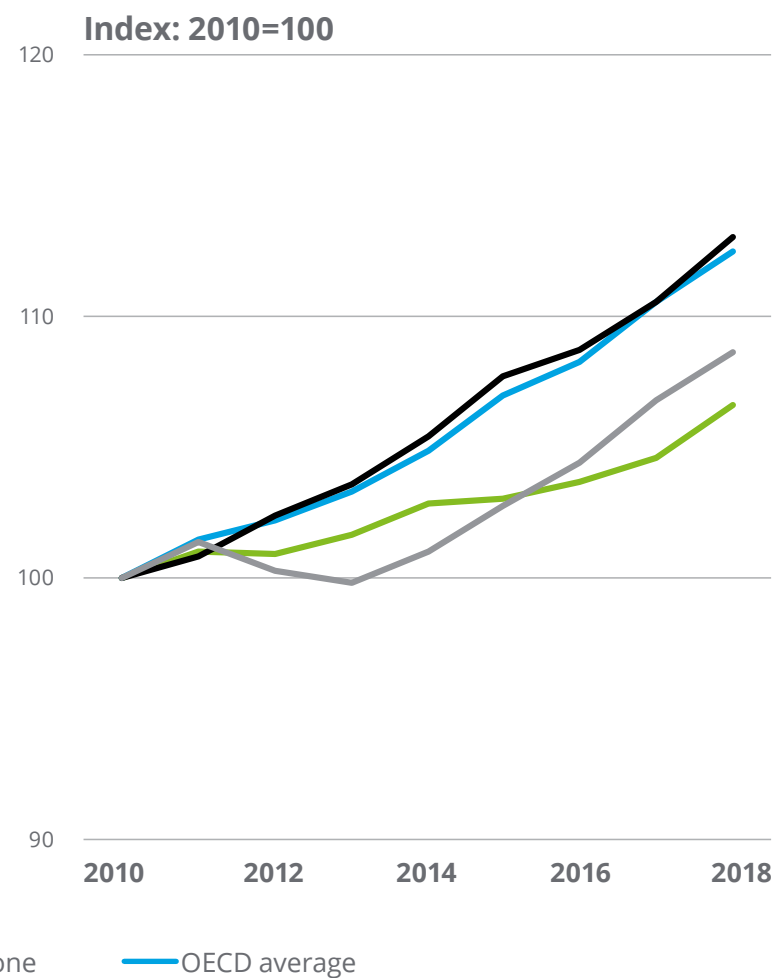
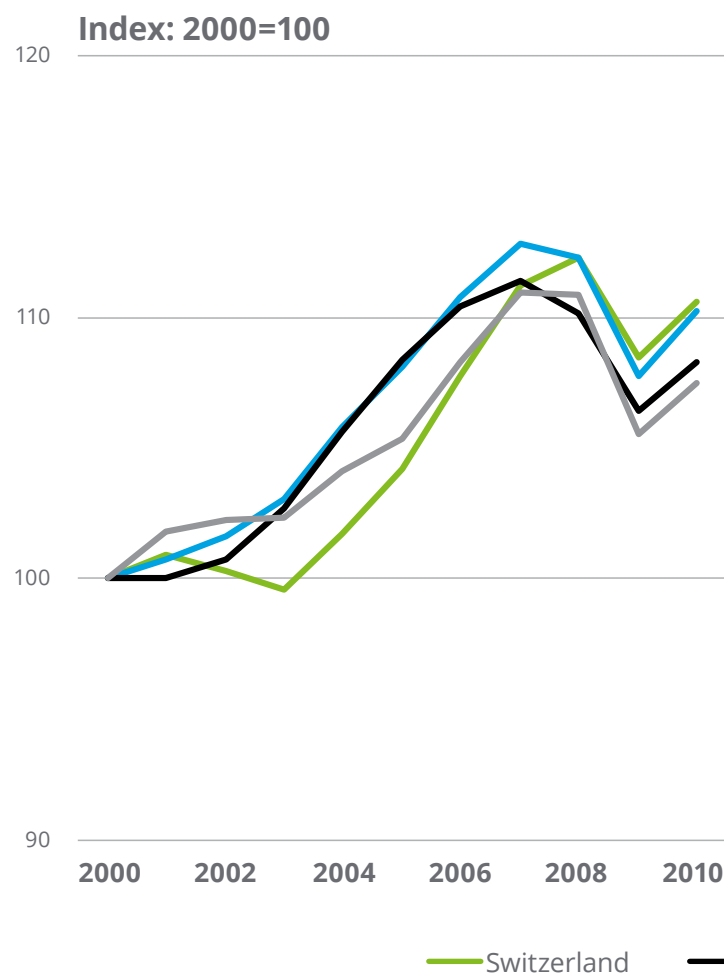
It was evident even before the COVID-19 crisis that there were problems in the Swiss economy. In recent years, more and more economists have been warning of a gradual decline. The OECD, for example, has been warning for years that low growth in both GDP per capita and productivity is increasingly putting Switzerland's high level of prosperity at risk.<sup>28</sup> The Swiss State Secretariat for Economic Affairs (SECO) agrees, going so far as to refer to "weak growth".<sup>29</sup>

As the left graph in Chart 5 shows, growth in GDP per capita adjusted for purchasing power was lower than the OECD average, eurozone and the US before the 2007-08 global financial crisis. Switzerland responded relatively quickly to the economic downturn caused by the financial crisis and outperformed the other countries or blocs for a while, but since the crisis this advantage has been lost and rates of growth have underperformed the average, as the right graph in Chart 5 shows. Indeed, the gap between both the US and the OECD average has widened steadily since then.

Despite its high level of prosperity Switzerland's GDP per capita has experienced low growth for many years. Whilst it is not yet evident what the impact of COVID-19 will be, it is unlikely to make any significant difference to this long-term trend of below-average growth rates in Switzerland.

A look at the two drivers of GDP per capita growth — working hours per head and labour productivity — shows why. A country can improve its GDP per capita, and its prosperity, only if the population either works more or becomes more productive. Higher productivity can be achieved, for example, by greater investment, better trained employees or technological progress.

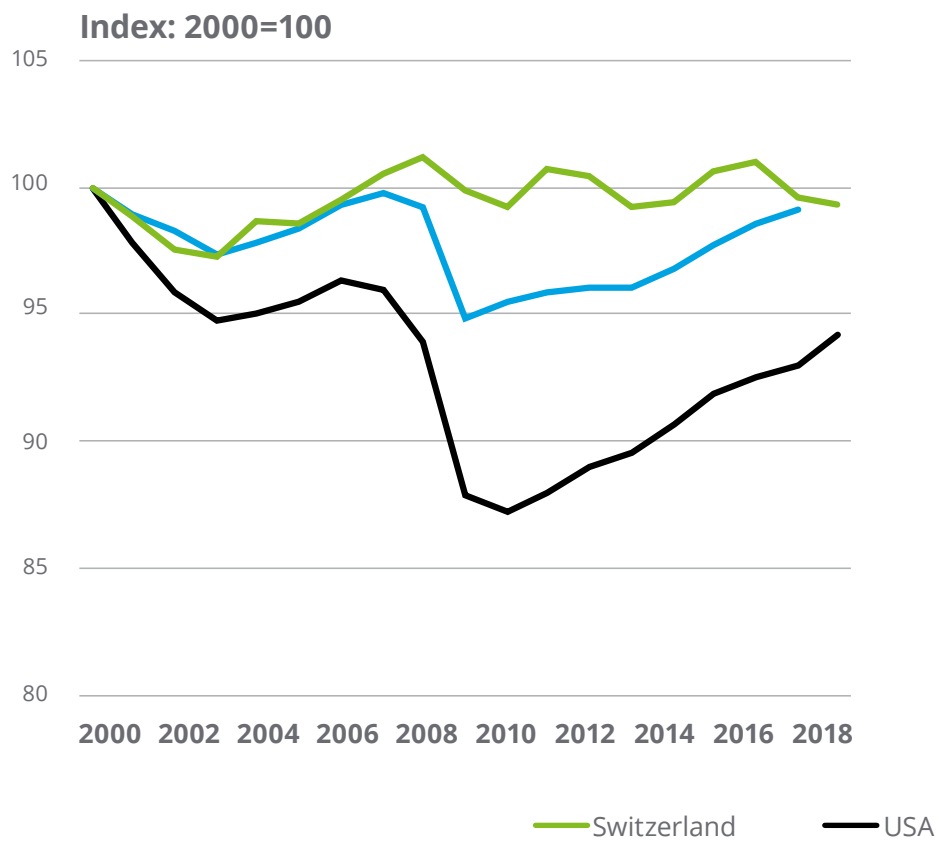
Chart 5: Growth in GDP per capita (PPP, USD)



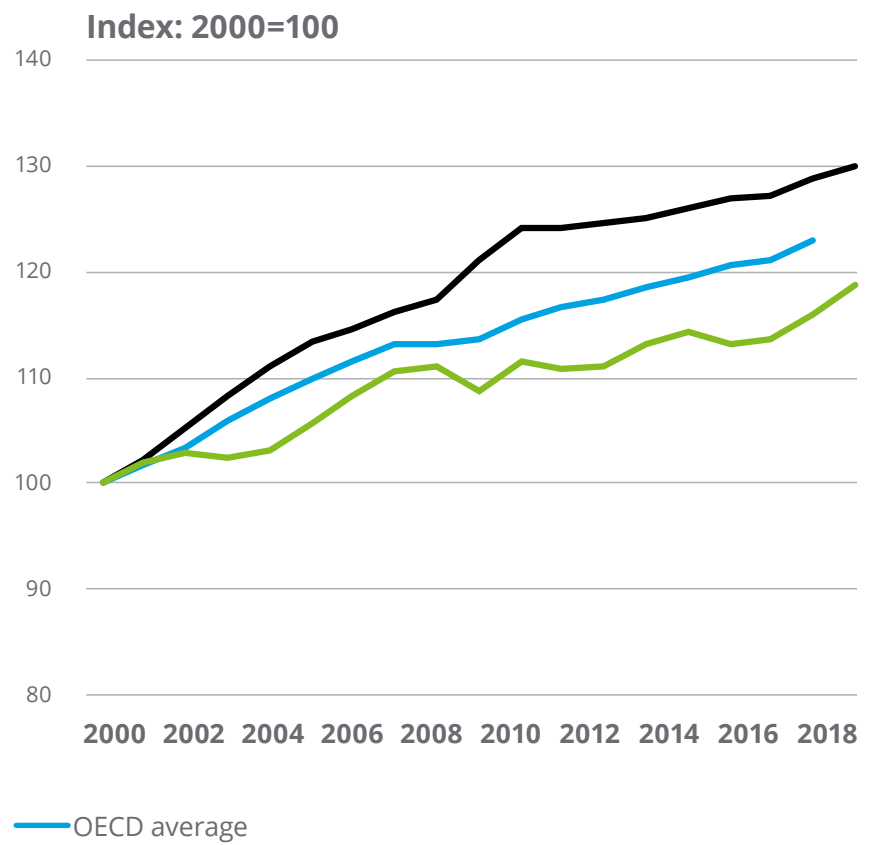
Source: OECD

Chart 6: Distribution of income per capita

Hours worked per capita



Labour productivity (GDP per hour worked)



Source: OECD



As is evident from the left-hand graph in Chart 6, labour input per capita in Switzerland has not grown since 2000, so it has not been able to have a positive influence on GDP per capita. And this is not likely to change: indeed it is more likely that labour input per capita will actually fall as the Swiss population continues to age and increasing numbers of baby-boomers retire.

This increases the importance of the second driver of growth in GDP per capita — labour productivity. Because Switzerland can hardly increase the number of hours worked, it is all the more important to increase productivity. And this is exactly where Switzerland's problem lies — labour productivity has not only slowed in recent years but has also consistently underperformed the OECD average and the US (see right-hand graph in Chart 6).

### Declining competitiveness

A country's productivity is influenced by its economic policy framework. Weak productivity growth in Switzerland should therefore also have a negative impact on competitiveness, at least where competitiveness is not narrowly defined in the economic sense (cost competitiveness), but as a broader bundle of economic policies.

One of the two best-known gauges of this broader definition is the annual ranking published by the World Economic Forum which uses a framework measuring 12 areas of national economies.<sup>30</sup>

In recent years, Switzerland has lagged somewhat, as Chart 7 shows. However, this is not just the result of poorer performance but also of adjustments in methodology.

The trend is less clear in the IMD Global Competitiveness index, the other major ranking index. Switzerland fell significantly in 2018, but improved slightly in 2019. However, as early as 2015, it had slipped from first place to fourth, though it regained its leading position shortly thereafter.<sup>31</sup>

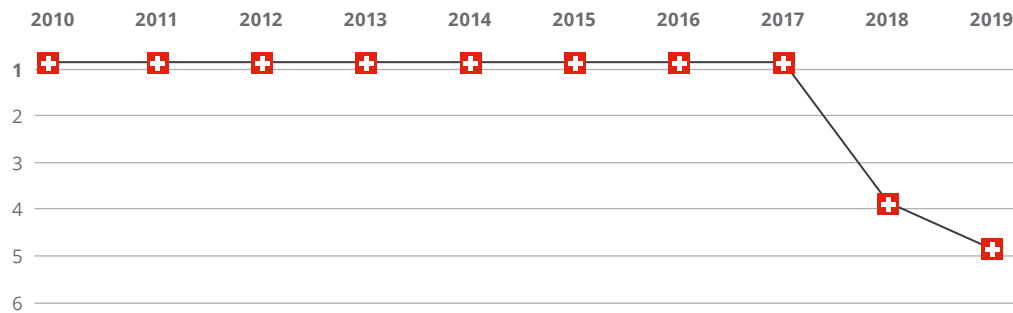
It is quite difficult to define the economic framework of a country and the WEF and IMD use different criteria, resulting in different conclusions.

It is therefore helpful to consider less broadly defined indicators, such as the Ease of Doing Business index, which measures state regulation of business activities as one aspect of competitiveness.<sup>32</sup> Ease of doing business is also one of the sub-indicators in the WEF ranking. On this indicator, Switzerland's ranking has fallen in recent years and currently ranks 36, as Chart 7 shows.

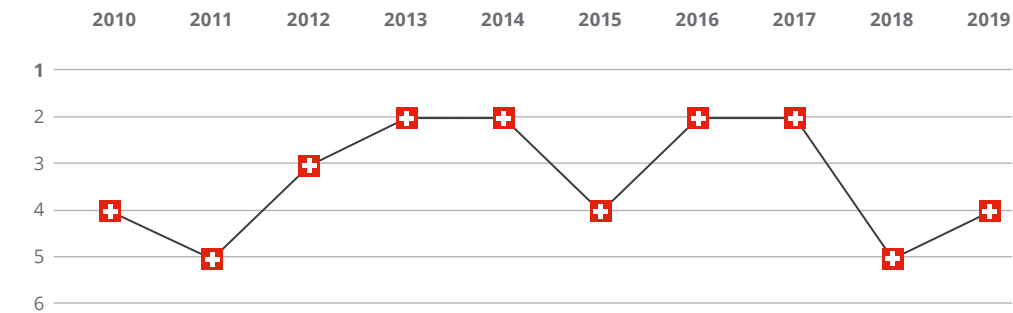
A further indicator of declining competitiveness is the decrease in Switzerland's attractiveness as a business location for foreign companies. The number of businesses attracted to Switzerland as a result of promotional activities by the cantons has fallen significantly in recent years, although this figure does not include all the foreign companies that have set up in Switzerland (see Chart 7). Most companies set up in the country without the involvement of bodies promoting it as a business location. However, a study by McKinsey, economiesuisse, SwissHoldings and the Swiss-American Chamber of Commerce shows that, Switzerland lost in attractiveness for foreign companies in general.<sup>33</sup>

Chart 7: Indicators of competitiveness

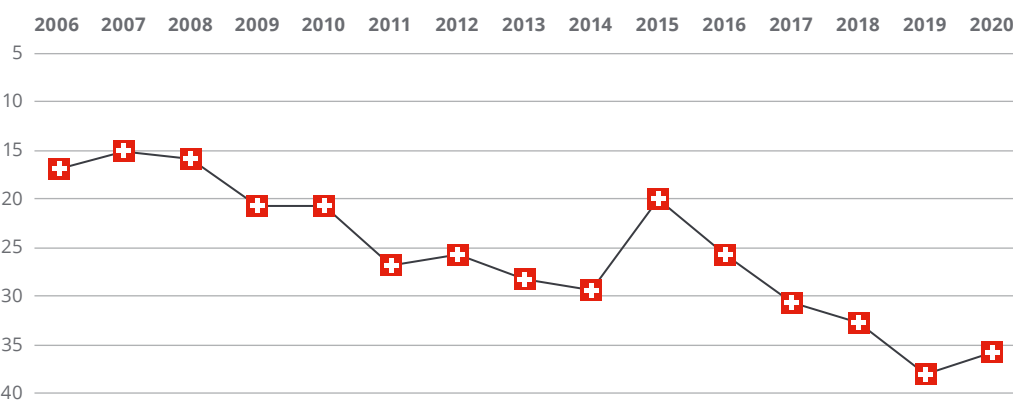
Placement of Switzerland in the WEF competitiveness index



Placement of Switzerland in the IMD competitiveness ranking



Placement of Switzerland in the Ease of Doing Business index



Companies attracted by measures to promote location



Source: WEF, IMD, World Bank, Conference of Cantonal Governments (KdK).

### Major challenges

COVID-19 hit the Swiss economy hard. In the short term, government and business will need to do everything they can to tackle the crisis as quickly as possible.

The measures adopted by the Federal Council and cantons are heading in the right direction. The priorities are to avoid unemployment by supporting short-time working compensation and ensuring that businesses have rapid access to loans to remain solvent. Deferral of taxes can also be helpful.

However, even if the COVID-19 crisis is successfully halted within the next one or two quarters and the economy is able to recover, Switzerland still faces problems in terms of competitiveness and associated weak growth, which predate the pandemic. The crisis may even exacerbate these problems. As a business location, Switzerland faces a number of other major challenges that are less critical during the current crisis.

Chart 8 summarises the major challenges facing the Swiss economy. We have divided them into three main groups representing the main drivers: politics, technology and society.

### Politics: global pressure

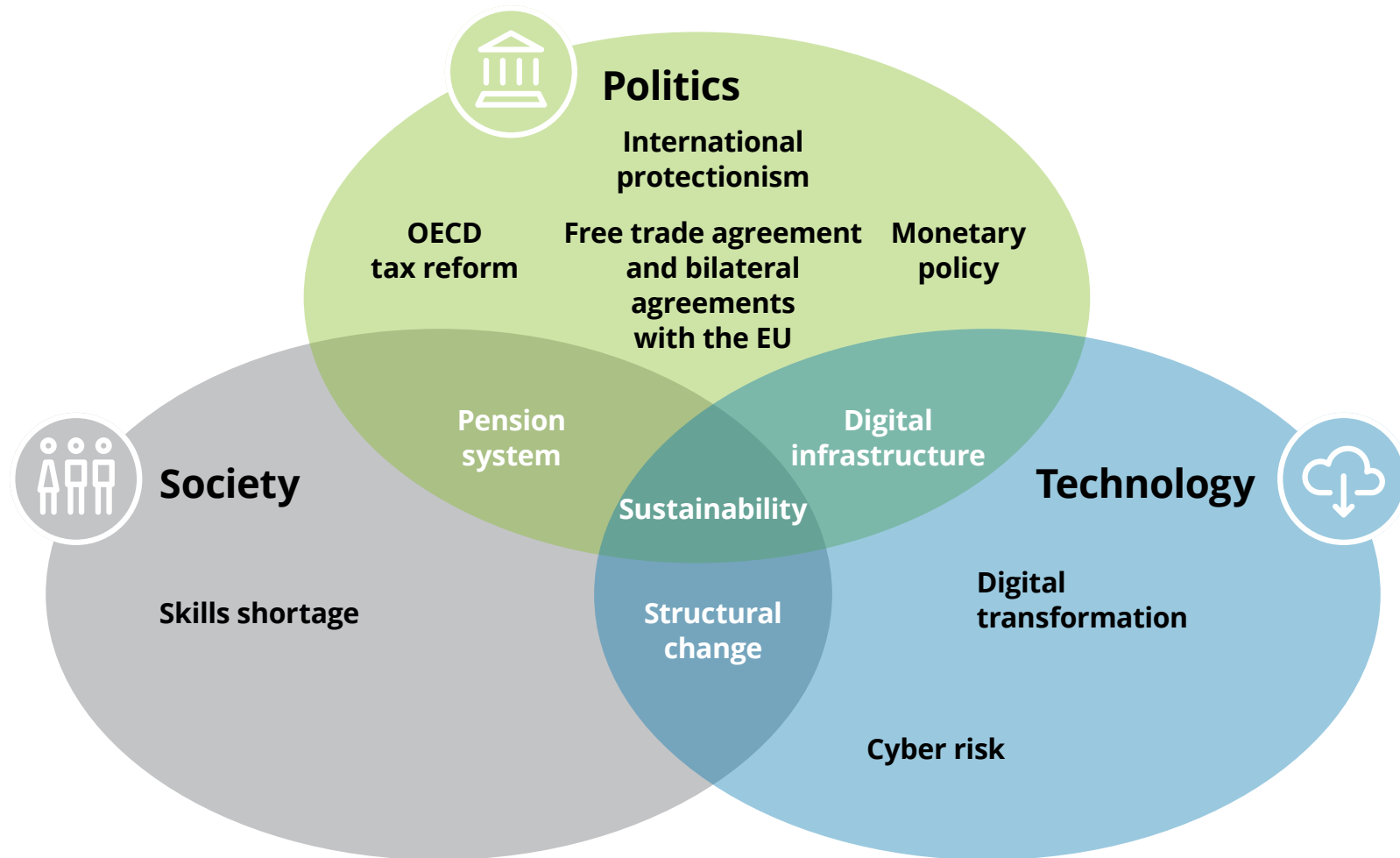
As an open and well networked country, Switzerland critically depends on trade and international relationships, so it is particularly affected by increasing global protectionism. Swiss exports account for two-thirds of its GDP, compared with an average of less than one-third in other OECD countries.<sup>34</sup> The growing trade war between China and the US and its potential spread to other countries is a major threat to Swiss competitiveness. There are also fears that the COVID-19 crisis may hamper international trade in the long term.

The trade war between China and the US is not the only threat Switzerland faces. Its relationship with the European Union, by far its largest trading partner, is also under pressure. Bilateral trade agreements ensure Swiss access to the European single market, which is vital for many companies, and in 2019, 72% of all Swiss imports of goods and services were from the EU, whilst 52% of its exports were to the EU.<sup>35</sup> A GfS Bern survey found that almost 60% of companies rate these bilateral agreements as important or very important to their business.<sup>36</sup> However, the agreements are under a two-pronged threat: a 'popular initiative' on restricting migration has called for the agreement on freedom of movement to be rescinded, and the framework agreement that the EU wishes to conclude with Switzerland

is very controversial within the country. If the referendum on the 'popular initiative' carries forward or if the framework agreement fails, future bilateral trade with the EU looks uncertain.

And if trade wars were not worrying enough, Switzerland also faces problems with the OECD. In response to pressure from its large member states, the OECD is working on proposals to reform corporate taxation with the aim of shifting the taxation of multinational companies to the countries where they sell their goods and services rather than those where they produce goods and services. Switzerland stands to lose around CHF 5 billion as a result and the indirect losses, for example from staff migration, are not included in that total.<sup>37</sup> The long-term impact is even more important than the direct loss of tax revenue because the reforms would make Switzerland less attractive to international business.

Chart 8: Challenges facing Switzerland as a business location



Source: Deloitte Research

Switzerland is also under pressure with regard to its monetary policy. The Swiss National Bank (SNB) has been operating an expansionary monetary policy for years, even though the last recession was ten years ago. When the economy is strong, central banks should be applying monetary policy 'brakes' to prevent the economy and the property market from overheating.

However, the SNB's hands are tied. As long as interest rates across Europe are so low, a unilateral rate hike by the SNB would lead to a further appreciation of the Swiss Franc. This would increase pressure on the export sector and drive up production costs, making Switzerland less attractive to foreign businesses. A strong currency is generally good for the economy and for productivity, but if its value rises in short, sharp bursts, it becomes a problem. In the wake of the COVID-19 crisis, it is therefore unlikely that Switzerland's expansionary monetary policy will be reversed in the next few years.

### **Society: demographic ageing**

Demographic change is the most serious social challenge facing Switzerland. In the next few years, retired people will account for a higher proportion of the total population. Currently 19% of the population is aged 65 or over, but that figure is due to rise to 27% by 2050.<sup>38</sup> This trend creates two major challenges: pensions will become unaffordable and there will be a labour and skills shortage. If these two challenges are not confronted, Switzerland will be negatively impacted as a business location. Whilst the financing of pensions is primarily a political issue it involves both economic and social policy.

The second challenge — ensuring there are enough workers to service the labour market — is no less daunting. As a Deloitte study shows, societal ageing is likely to create a shortfall of up to half a million workers in Switzerland as early as 2030.<sup>39</sup>

### **Technology: a variety of risks**

In addition to political and social issues, technological change also poses major challenges for Switzerland as a business location. Digital transformation lies at the heart of this issue, as it affects both consumer behaviour and business processes. If such changes are perceived as a threat rather than an opportunity, there is a risk that regulation and industry policy will hinder structural change in the economy and hamper growth in productivity.

Technological progress also brings with it cyber threats, which have the capacity to cause further damage to the Swiss economy. At present the cost is estimated to be several billion Swiss Francs a year,<sup>40</sup> but this figure is likely to rise as many companies underestimate the risks and have not integrated cyber security into their corporate strategy.

Cyber attacks also pose a threat. Other countries have already suffered such attacks on their public services, such as transport, energy infrastructure, or their democratic processes. This is another reason why Switzerland needs an efficient and secure digital infrastructure.

Technological progress also means structural change, which will have an impact on society. As Deloitte has found in a number of studies, digitalisation has consistently generated higher employment in Switzerland.<sup>41</sup> The introduction of increasingly sophisticated software and robots may make some jobs obsolete, but more new jobs are also created — and these new jobs are usually more varied and less physical. This structural change is positive for the economy but poses challenges for society, placing the workforce under constant pressure to adapt and develop.

### **Sustainability as a cross-cutting area**

Sustainability is also a key challenge for Switzerland as a business location. Three factors are involved here. First, any economy needs a healthy environment on which to base its long-term success. Switzerland performs relatively well in this area, but there is room for improvement, for example in relation to biodiversity and greenhouse gas emissions. The second challenge is implementing efficient and targeted regulation. If Switzerland ignores market 'carrots', such as CO<sub>2</sub> incentive taxes and trading certificates, solely in favour of regulatory 'sticks', this is likely to damage the economy. Third, there is a risk of reputational damage if companies simply ignore environmental and societal concerns.

## 5. Time to act: Eight areas for action

The Swiss economy is reeling from the effects of COVID-19, highlighting how fragile our prosperity is, demonstrating that our economy is more vulnerable than many believed. Politicians and economists need to put all their resources into tackling the crisis and to take measures to get the economy back on track as soon as possible.

However, this may not be enough in the long term. Switzerland urgently needs far-reaching reforms. The COVID-19 crisis has revealed something that many economists have long warned of: policymakers and some areas of business have been resting on their laurels in recent years and have not been sufficiently proactive. Over the last few years, for example, there has been a relative decline in productivity, whilst the WEF index also reveals a decline in competitiveness. Switzerland is trailing badly on some sub-indicators, too, such as the ease of doing business rankings.

To add to these concerns, the country also faces a number of major challenges alongside tackling the COVID-19 crisis. These challenges are putting Switzerland under further pressure as a business location and will further weaken both its competitiveness and productivity growth. It is time to grasp the current

opportunity to take the longer-term measures that will make Switzerland fit for the coming years and decades as well as taking the short-term measures needed to tackle the COVID-19 crisis.

### Obligations on policymakers and business

The government must take action: it creates the framework and thus the competitiveness of the Swiss economy. This gives it substantial influence in areas such as productivity growth and other challenges facing the economy. The Federal Council's most recent economic report pointed out that low productivity growth is influenced by economic factors including increasing red tape, weak competition within the domestic market (specifically in the areas of infrastructure and agriculture) and the looming skills shortage.<sup>42</sup>

To achieve productivity growth, countries also need a high-quality education and training system, openness to foreign trade, functioning capital markets, a flexible labour market and an efficient system of taxation.<sup>43</sup> Switzerland performs relatively well in many of these areas, but it must maintain its position or, indeed, improve it to face the challenges described above.

For their part, companies must also do more. Governments may be able to create an appropriate framework and incentives,

but it is predominantly a country's companies that can respond to competitive pressure and drive up productivity. Technological progress in particular underpins productivity: the more a company makes use of the latest digital technologies, the greater the productivity gains are likely to be.

This area appears to be a particular stumbling block for Swiss businesses: although Switzerland invests above average in information and communication technology (ICT), according to the OECD, Swiss companies perform relatively poorly when it comes to the use of important digital technology such as cloud computing, customer relationship management (CRM) software and enterprise resource planning (ERP) tools.<sup>44</sup> A study by Deloitte, which measures digital innovation capacity in OECD countries, comes to a similar conclusion.<sup>45</sup>

### The Swiss private sector assessment

To determine the areas policymakers and businesses need to focus on, Deloitte conducted a survey of 400 representatives of private sector businesses, most of them Board members or senior managers. The survey was conducted in January 2020, shortly before the start of the COVID-19 pandemic, and asked participants to rank areas in terms of their importance to the future competitiveness of the Swiss economy. The list of areas from which

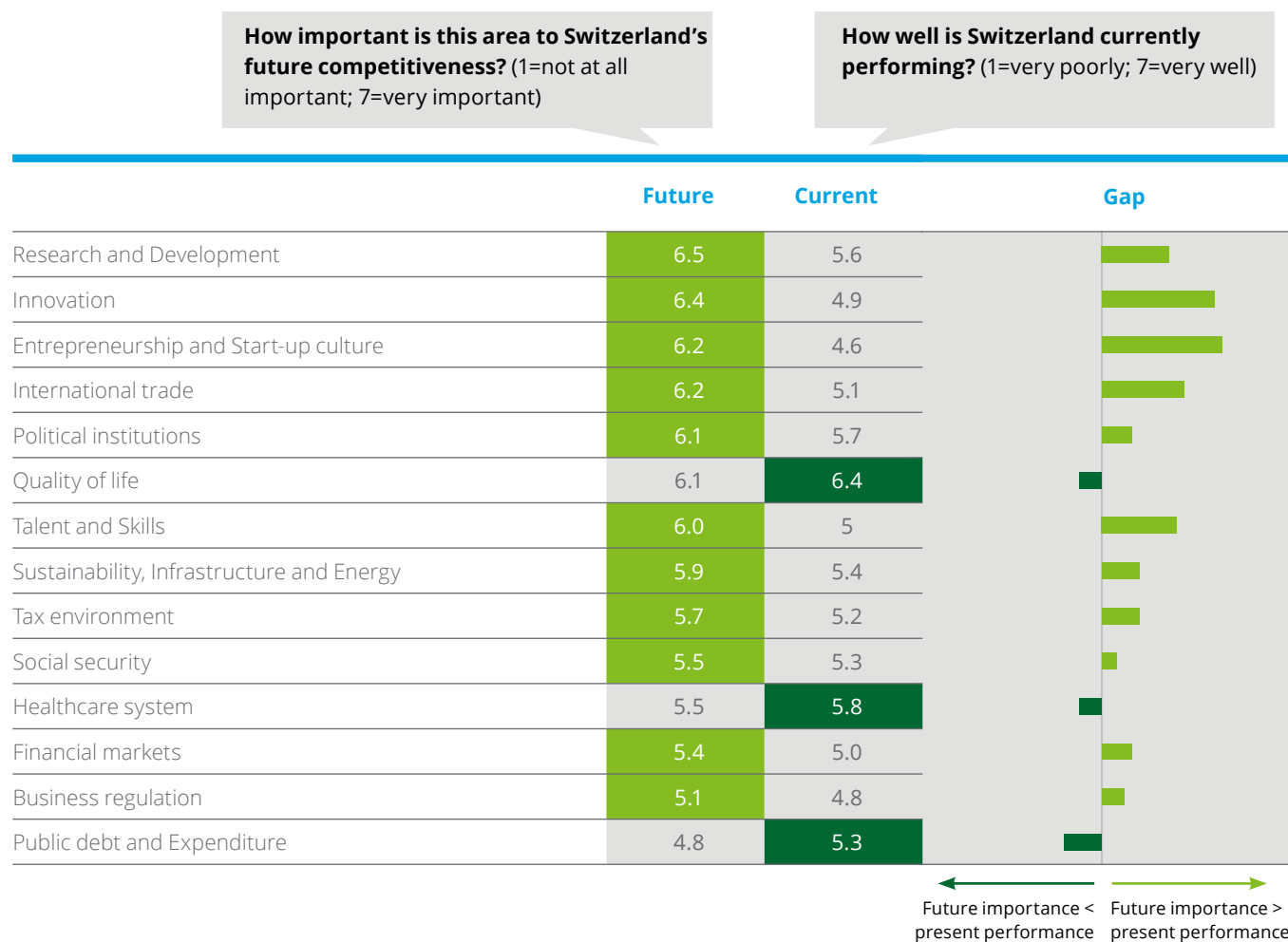
respondents were asked to choose was based on a wide-ranging literature search into the factors influencing competitiveness.

A second question asked respondents to rate Switzerland's current performance in each area. Respondents were asked to answer both questions on a scale from 1 to 7, with 1 being the lowest ranking and 7 the highest. The difference between their two responses shows what Switzerland could achieve and, to some extent, defines the potential for improvement in each of the areas listed.

As Chart 9 shows, 'Research and Development' tops the list in responses to the first question, achieving an average importance ranking of 6.5 out of 7.0 from the 400 respondents. This makes R&D a very important area in terms of further improvements to Switzerland's competitiveness. The score for how well Switzerland is currently doing in this area (5.6) indicates that it is doing 'well' but not 'very well' in the opinion of respondents. Subtracting the second score from the first (6.5 minus 5.6) produces a difference of 0.9 points, which represents the potential for improvement that survey respondents see in the area of R&D.

Respondents do not see room for improvement in all the areas listed. Where the figure obtained by subtracting the second score ("How well is Switzerland currently performing in this area?") from the first ("How important is this area to Switzerland's future competitiveness?") is zero or even negative, respondents do not see room for improvement. This is the case, for example, in the area of 'Quality of life'. Quality of life is important to the country's future competitiveness but respondents think Switzerland is already performing so well in this area that there is little, if any, room for improvement.

**Chart 9: Factors influencing growth in competitiveness**



Source: Deloitte Research

### Eight areas for action

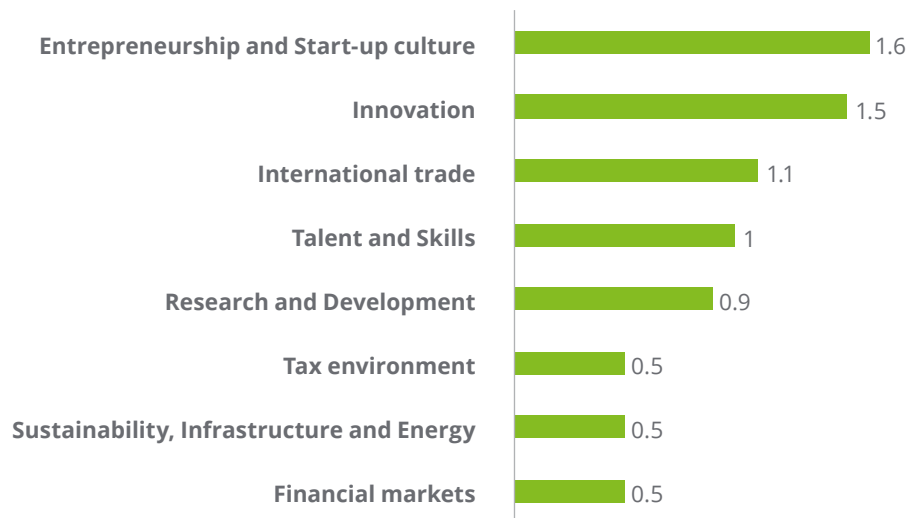
Whilst it is encouraging that there are some areas in which Switzerland has little need for improvement, the areas with the greatest potential for improvement are much more important. These are the areas where policymakers and companies can most influence competitiveness and productivity growth.

As Chart 10 shows, there are eight areas where the difference is at least 0.5 points therefore representing significant room for improvement. Top of the rankings is 'Entrepreneurship and Start-up culture', followed closely by 'Innovation'. These areas have a difference of at least 1.5, because according to the survey findings, both are crucial for Switzerland's future competitiveness and score above 6.0 on the importance ranking. However, at present Switzerland is performing relatively poorly with scores of below 5.0 in each area — meaning there is plenty of room for improvement.

If the survey had been carried out during, rather than before, the COVID-19 pandemic, the results would probably have been slightly different. Interviews with company representatives show that many companies have recalibrated their priorities, at least in the medium term. Areas such as 'Talent and Skills', 'Financial markets' and 'International trade' (especially supply chains) are now seen as more important as a result of the COVID-19 crisis. However, it is unlikely that the fundamental importance of the eight areas we identified has changed. All these areas are, and remain, crucial to the long-term success of Switzerland and its businesses.

Below, we consider each of these areas in greater detail, suggesting specific measures for both policymakers and business that will boost competitiveness and productivity and help Switzerland to get back on track. For each area, we set out a comprehensive package of reforms.

Chart 10: The eight areas for action



Source: Deloitte Research.

Note: Values denote potential for improvement.



## 5.1. Entrepreneurship and Start-up culture



Establishing businesses is in the Swiss DNA. More than 99% of all Swiss companies are SMEs (small and medium enterprises) or family businesses. They employ two-thirds of the Swiss workforce and have made a substantial contribution to increasing prosperity over recent decades. These companies are justifiably considered the backbone of the Swiss economy. However, Switzerland performs less well in the area of entrepreneurship education for the youth and start-up culture and is nowhere near using its full potential. The proportion of the Swiss working-age population starting their own business is 7.3% – five percentage points below the global average.<sup>46</sup>

As drivers of innovation, start-ups are crucial to any country's growth and prosperity so Switzerland must take action to facilitate an innovative and globally competitive start-up scene. The state should further dismantle regulatory barriers and ensure that entrepreneurship forms a more significant part of education curricula. For their part, companies should be encouraged to create a wide-ranging culture of innovation, set an example in dealing positively with mistakes and failures, and cooperate more closely with start-ups.



## Recommendations for policymakers

- |   |   |
|---|---|
| 1 | Make entrepreneurial thinking and expertise part of the school curriculum |
| 2 | Consider alternatives to wealth tax                                       |
| 3 | Change the way employee shares are taxed                                  |

### 1. Make entrepreneurial thinking and expertise part of the school curriculum

The comparatively low level of start-up activity in Switzerland probably reflects the population's below-average enthusiasm for self-employment. Switzerland has low rates of unemployment and high salaries. School-leavers and university graduates have a wide range of well-paid alternatives to embarking on the financially risky course of starting their own business, so start-ups represent a substantial opportunity cost. However, youth entrepreneurship also attracts little attention. Schools do little to excite students about business in general terms, let alone teach them about setting up a business, and it is not until they get to university that students learn about starting and managing a business and practical economics. This needs to change. Teaching economics, entrepreneurial thinking, and basic business and digital skills

should be part of the school curriculum, with teaching staff receiving the appropriate training and support to do this. In cooperation with the private sector, schools could also teach more about start-ups, perhaps as part of special project weeks or placements within start-ups.

### 2. Consider alternatives to wealth tax

Compared with most other countries, Switzerland has relatively high rates of wealth tax on company assets rather than profits and these are not only economically questionable, but also particularly problematic for start-ups. The Swiss tax system uses market value to quantify a company's share capital, but non-listed companies often do not have a market value that can be used for this purpose. In such cases, many canton-level tax authorities — including Zurich's — have until recently used the capital acquired through financing rounds as the basis for this calculation. The value of a financing round represents the potential value that investors hope to achieve, so a start-up's share value can rise rapidly — on paper, at least — even when there is no market for its shares and it makes no profits. In the past some individuals starting their own business have had to pay high taxes on these 'virtual assets', something they could ill afford whilst earnings remained low. The canton of Zurich has recently alleviated the situation to some extent by setting aside the financing round value once the

company has 'representative business results', but this is unlikely to solve the problem. The precise definition of 'representative business results' remains unclear and these companies are still disadvantaged in international competition. Facebook co-founder Mark Zuckerberg himself would have had to pay CHF 264 million in tax if he had set up Facebook in Zurich, even with a five-year transitional period. As long as high wealth taxes remain in place, it seems clear that the next Facebook will not be set up in Switzerland — or, if it is, will rapidly move elsewhere. It is therefore time for politicians to consider alternatives to wealth tax. Options such as death duties and gift tax or consumer taxes, such as VAT, distort the economy much less.

### 3. Change the way employee shares are taxed

As well as being taxed on their 'virtual assets', start-ups also face problems with the way employee shares are taxed. In their early days, most start-ups pay their highly skilled staff relatively low salaries but top them up with employee shares. The tax system treats employee shares as part of remuneration and taxes them as income even though these employees are actually bearing part of the company's risk. And where a start-up has a very high taxable value because investors are 'banking' on it becoming a commercial

success, employees have no option but to pay a large part of their relatively modest salaries in tax. The Swiss Parliament tackled this issue in 2018, tasking the Swiss Federal Council with framing legislation, but there has been little progress since then and the Federal Council has expressed concern about definitions of what precisely constitutes a start-up. It would be worthwhile considering statutory arrangements for all non-listed companies, such as tax breaks for a specified period.



## Recommendations for businesses

- |   |   |
|---|---|
| 1 | Promote an entrepreneurial mindset at all levels of management      |
| 2 | Increase risk appetite and a genuine culture of tolerating mistakes |
| 3 | Expand cooperation with start-ups                                   |
| 4 | Create ecosystems   |

### 1. Promote an entrepreneurial mindset at all levels of management

Every company, large or small, should aim to create a start-up culture. Any business that wants to be innovative in the long term relies on innovative staff — and that means not just creating and promoting awareness of the importance of new ideas, but also setting a good example of an entrepreneurial mindset. Any employee coming up with an idea should

be able to take it to their line manager and count on as much support as possible. This requires a flat company hierarchy and a flexible corporate culture. One way of achieving this is to spin-off separate business units from the main company and give them their own structure so that they can experiment like a start-up.

Another fruitful approach is specific initiatives to promote competition between employees for new ideas, such as regular innovation initiatives. 'Hackathons' are one well-known way of doing this: these are high-speed programming competitions requiring employees to develop apps and software that are then judged, with prizes awarded to the best solutions. Companies could run competitions of this kind outside the tech area, too, and encourage employees across the board to develop innovative ideas in such areas as enhancing the business model, streamlining internal procedures and processes, organising cooperation or producing goods and services.

### 2. Increase risk appetite and a genuine culture of tolerating mistakes

Promoting innovation needs to go hand in hand with creating a positive culture of tolerating mistakes. Errors and failures must be permitted and accepted so that employees have the courage to put forward ideas and suggestions. Every innovative company makes mistakes: it could be argued that you are not a real entrepreneur until your business has gone bust at least once. Of course, mistakes should not be idealised: the important thing is to create a learning culture around them. Many companies often do exactly the opposite, focusing on planning and monitoring and taking a 'carrot and stick' approach. And this focus often lies primarily with managers. Where management takes a negative view of mistakes, employees are unlikely to experiment and take risks. Tolerance of mistakes and failures must therefore form part of the culture of the whole company and all levels of management. Managers who tackle mistakes and failures openly and discuss them within the team, rather than penalising them, ultimately create

an environment in which employees can be confident and adopt a risk-taking mindset. Concepts such as 'fuck-up parties', in which employees talk openly about failed projects and what they have learned from them, can also be helpful. In a relaxed environment of this kind, audiences can, indeed, be inspired by failure, contributing to a company that is better able to handle mistakes.

### 3. Expand cooperation with start-ups

Alongside creating a start-up culture and a climate of genuine tolerance of mistakes and failure, companies should also cooperate more with start-ups. Some large companies are already doing this, but cooperation arrangements often prove more difficult than companies imagine, pitting a highly agile young business against an often hierarchical large entity with clearly structured processes. Hardly surprising, this makes cooperation difficult, so businesses need to think carefully and in detail about cooperating with a start-up, and plan accordingly. The nature of the partnership will underpin success and it is particularly urgent to increase cooperation in the area of Industry 4.0: many companies lack the necessary know-how to adapt to specific digital technologies such as machine learning, sensor technology and virtual reality.

### 4. Create ecosystems

Although cooperation with start-ups is important, it is sensible for many companies to go further and create what might be termed 'ecosystems'. These can forge new and profitable links with all market participants. Alongside cooperation arrangements with start-ups and joint ventures, such ecosystems could also include approaches such as crowdsourcing, platform economies and cooperation with universities. The aim is to create added value for customers on a shared and cross-sector basis. Many companies can no longer produce everything themselves because they lack the specific know-how or time, but shared 'communities' comprising a range of partners could create value through well-developed models for collaboration and competition. And technology transfer could support research institutions, universities and start-ups in the corporate sector.

The Lausanne Federal Institute of Technology (EPFL) is already a hub for exemplary cooperation of this kind, including its Innovation Park, which is based in Silicon Valley and promotes cooperation between the university and start-ups, and its Campus Biotech, an ecosystem that supports interdisciplinary approaches in the areas of neurosciences and bioengineering. Ecosystems of this kind have made the region around Lake Geneva one of the world's leading research centres.

## 5.2. Innovation

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Innovation is about creating new commercially viable products and services. Businesses need to innovate both in small, incremental ways and in big, revolutionary ones. Research and development is one crucial innovative area. But R&D needs to be applied and adapted to business processes and is only one area of innovation.<sup>48</sup> By discovering new commercially viable products and services and improving upon existing ones, innovation is crucial for productivity growth. Such growth is one of the key challenges for the Swiss and many other developed economies (see Chapter 4). Innovation is even more crucial in the context of the COVID-19 pandemic, which have seen accelerated digitalisation, (forced) adoption of digital channels and ways of collaborations, more data centricity, and new interactions with citizens and with users.

Businesses need to bring innovation to different areas, including their configuration (e.g. profit model), offering (e.g. product) and experience (e.g. brand). To be successful, they need a company culture fit for innovation, senior management buy-in and a strategy. They need to manage their innovation portfolio and utilise ecosystems. Innovation should place people at the centre and create real value for clients and employees. Government should foster innovation by creating the framework for it and by becoming a role model and a data superpower.

There are three accelerators for innovation: digitalisation, automation and insights, all of which are based on data. Data drives innovation: by setting new standards for data privacy and security, creating unparalleled open data collection and exploring the idea of a digital twin, the government can secure Switzerland's place as one of the leading innovative business locations. Both business as well as policymakers can therefore drive innovation and in doing so lift Swiss productivity growth.



## Recommendations for policymakers

- 1 Provide the framework for innovation
- 2 Government – the innovation leader
- 3 Become a preferred data custodian
- 4 Become a data superpower
- 5 Create a digital twin of Switzerland

### 1. Provide the framework for innovation

One key role for government in innovation is creating a framework that fosters business innovation. This in turn is crucial to lifting productivity growth. A framework of this kind involves several areas, such as taxation and regulation, and the fostering of entrepreneurship and talent. Taxation and regulation, key levers for the government, need to encourage business innovation, or, at least, not hinder it. Taxation can provide incentives for innovation, such as the patent boxes included in the recent corporate tax reform, which provide incentives for R&D, a key part of innovation. Regulatory examples include the Fintech sandbox providing light-touch regulation for financial service start-ups. The burden of regulation for business in general should be lowered through a targeted approach that evaluates the costs and benefits of regulation. The SECO Bureaucracy Monitor 2018, for example, shows that companies find regulation especially burdensome in the areas of construction, food, trade, audit and value add taxes.<sup>49</sup> Reforms should target these areas where possible and existing initiatives should be accelerated.

Another key element is supporting entrepreneurship, start-up development and finance. The transition from small start-up towards mature, larger corporations is one to look at in particular. For example, it is easier to secure first-stage financing for smaller start-ups and more difficult to secure the larger sums required for second-stage finance for larger start-ups. Whilst financing should ideally be private venture capital, government or government-owned entities such as the cantonal banks could help.

Talent is a third important area, including both domestic and foreign talent. Digital and entrepreneurial skills should feature more strongly in school curricula, without undermining essential underlying subjects, such as languages or mathematics. The framework for international talent mobility currently puts Switzerland behind other leading business locations.<sup>50</sup> More emphasis needs to be put on attracting highly talented graduates, fostering international intra-company mobility, and digitalising and harmonising immigration processes.

### 2. Government – the innovation leader

Innovation should be driven forward by the government itself – making the country a role model for an innovative, digital state. In doing so, government helps create both an innovation environment and generates demand for suppliers of innovation and innovative products and services. Government can foster innovation clusters and be an integral part of them. And by going digital the government enhances its ability to reach all segments of the population.

Government services should therefore be digitalised wherever possible, especially at the back-end, the non-customer-facing processes, and gradually harmonised across Switzerland without undermining cantonal decision-making. One stop shops for both businesses and citizens, such as easy.gov, should be expanded. Hybrid services should be the aim, the seamless integration of digital and non-digital customer-facing processes, to address all citizens and allow them to interact with the government via their favourite channel. At the same time, there should be gradual digitalising and harmonising of back-ends, to increase efficiency and reduce costs and the scope for errors. Examples of non-digital administration and its disadvantages include manually inputting data into immigration databases and using a fax to record COVID-19 infections. As the pandemic has highlighted, digital services are more resilient and offer both short-term and long-term advantages.



A lack of will, or rather the difficulty in coordinating different stakeholders, and a lack of resources can be obstacles to e-government. Coordination with stakeholders could, for example, be tackled by further centralising responsibility for digitalisation and cyber security within the government. To alleviate the lack of resources one area of increased government investment should be digital government services. Whilst the government must retain ownership, it should also benefit from private sector input and know-how when digitalising. New ways of public-private cooperation should be explored, such as with the proposed digital identity card (where the precise nature of public and private cooperation still needs to be defined politically).

Government can encourage targeted innovation by bringing in companies to solve economic problems, in the form of collaborative national innovation contests.

### 3. Become a preferred data custodian

If data is the oil of the digital economy, Switzerland has the chance to become a commodity superpower — which it has never been in traditional commodities.<sup>51</sup> First, Switzerland should utilise its reputation for security, reliability and data privacy to become a preferred data custodian and location for data storage, hubs and related services. Integration and seamless operation within the EU are important, in order to be part of a much larger market and reduce business costs. Thus recognition of equivalence to EU data privacy must be secured.

### 4. Become a data superpower

The potential to create value from data is — still — vastly untapped. The Swiss government could influence the creation of shareable data sets to feed innovation. Switzerland should create a huge data collection ‘lake’ drawn from people and behaviour in Switzerland, whilst strictly adhering to data privacy and security. Public ownership should be combined with business innovation. This should be open data, with non-profit organisations as well as all businesses, including start-ups, enjoying equal access, thereby furthering business innovation and productivity growth. Open data would remove obstacles for start-ups, reducing the need to collect data for proprietary, perhaps overlapping data pools and instead putting the emphasis on using the available data for innovation. Health is an obvious area where a trusted data custodian could help drive data provision and related innovation, both on a long-term basis, such as in cancer research, as well as shorter-term, as in a pandemic.

At the same time, a large, high-quality and free data pool would give greater incentives for international digital companies to offer their services in Switzerland and pioneer and beta-test them here. A small, but digitally surveyed market would be the ideal testing ground for new digital products and services, increasing digital innovation in Switzerland.

### 5. Create a digital twin of Switzerland

The idea of becoming a data superpower could be driven ahead further by creating a digital twin of Switzerland. Digital twins are digital replicas of physical assets, processes, people, places, systems and devices, using real-time sensors. The digital twin adapts and changes as the physical one does, providing both real-time updates on what is happening as well as highly realistic simulations. All data collected would have to be non-personal data. This could include long-term benefits such as providing data for the future of mobility, as well as real-time monitoring during a pandemic. Given the scale involved, an iterative process would be appropriate, starting with one set of sensors (such as non-personal mobile phone location data) and/or starting with smaller locations, such as a smaller city.



## Recommendations for businesses

1	Create a company culture fit for innovation
2	Balance your innovation portfolio
3	Leverage ecosystems
4	Make cyber security integral to everything
5	Embrace mobile solutions

### 1. Create a company culture fit for innovation

Make innovation a strategic priority at all levels in the company. A company culture fit for innovation is one of the most important success factors. Senior management buy-in and sponsorship are vital. Embrace agility and learn from failure, aligning rewards and promotions accordingly. Foster talent willing to learn and adopt constantly. Adapt to exponential growth where disruption can happen in a short amount of time. Initiate digital maturity assessment (DMA) to enable a broad digital transformation. A DMA provides guidelines for a clear path through the transformation by covering five core business dimensions.

### 2. Balance the innovation portfolio

Balance a company's innovation portfolio between core, adjacent and transformational innovation. Core innovations are incremental improvements in existing products and services, which are typically more certain to succeed, though with limited benefits. At the other end of the scale is transformational innovation, which has the opposite risk-benefit outlook: less likely to succeed, but with a potential transformational effect if it does. Having an innovation portfolio allows a strategic innovation strategy across all dimensions and avoids wavering from one strategy to another. Companies should go for incremental improvements, but not limit themselves to such as strategy and also aim for transformational change. Core innovation is vital to keep a product or service competitive provided no transformational change occurs. But a transformational change may make the product or service and all previous core innovation associated with it obsolete.



### 3. Leverage ecosystems

Partner with others to become more competitive together. This can take the form of specialising on part of the value chain instead of trying to stay competitive across the entire chain. It could also involve offering external services in addition to the core service provided. For example, a bank might offer external insurance services in addition to its banking services. A vital aspect of working with an ecosystem is cooperating with start-ups by using their innovation without hindering it. Working in an ecosystem can also allow companies to reach towards transformational innovation and entirely new products or services. For example, a retailer might partner with an IT company to offer healthcare services, with each contributing their skills and access to customers.

### 4. Make cyber security integral to everything

Make cyber security a strategic priority, not an IT problem to be solved by IT alone. First, cyber security is as much a people issue as a technology issue, as employee mistakes can provide entry points for attacks. Cyber security must be part of the business culture. Second, cyber security should not be treated as an isolated afterthought, figured out after the product or service is developed. Security must be an integral part, perhaps even one of the selling propositions. Cyber security offers a growth opportunity, as trust and security become ever more important. This is even more critical during a pandemic, as more services are digitalised and therefore more potential entry points for cyber attacks are created.

### 5. Embrace mobile solutions

Mobile technology still has great potential for businesses, as well as for overall productivity growth. It has made huge advances both in hardware and software and enjoys nearly universal consumer usage. Businesses can make still more use of mobile technology as a customer channel. Whilst services such as mobile shopping or mobile finance are on the rise, there remains potential for suppliers to improve their offering. Even greater potential lies in the application of mobile technology as a business tool. Administrative tasks could benefit from the ease of use of mobile solutions, whilst real-time updates and end-to-end digitalisation could benefit many customer or non-customer-facing business processes. A client adviser could, for example, use mobile devices to advise clients, display information during client conversations, document interactions and initiate next steps, such as starting customer onboarding processes.

## 5.3. International trade



International trade is very important to the Swiss economy. The country's trade-to-GDP ratio — the proportion of its GDP accounted for by exports and imports — is 120%, twice the OECD average. This figure has risen steadily over recent decades, making international trade a key pillar of Switzerland's economic success. Over the past few years, though, the free exchange of goods and services has come under increasing pressure, largely as a result of the trade war between the US and China. Protectionist tendencies are also evident in other countries. Trade experts are now increasingly warning of deglobalisation or 'glocalisation'. The COVID-19 crisis has also highlighted how fragile the international trade system is — and is likely to accentuate these trends further.

This does not augur well for Switzerland. The more reliant a country is on international trade, the more vulnerable it is to protectionism and trade barriers. Swiss politicians should therefore conclude further free trade agreements and ensure long-term access to the European single market, by far Switzerland's largest trading partner. For their part, companies need to rethink and redesign their global supply chains and choice of business locations and make better use of the potential for digitalisation.



## Recommendations for policymakers

- 1 Deregulate and simplify the tariff system
- 2 Maintain bilateral agreements with the EU
- 3 Review and broaden strategic free trade agreements
- 4 Update data protection

### 1. Deregulate and simplify the tariff system

Switzerland's tariff system is unwieldy. The 2019 WEF Global Competitiveness Report ranks Switzerland bottom of the 141 countries surveyed on the indicator relating to the complexity of its tariff regime. The main factor here is likely to be its import regulations for agricultural goods, which are extremely complex and protectionist. And it is consumers and taxpayers who pick up the bulk of the cost of these regulations — around CHF 20 billion a year, according to Avenir Suisse.<sup>52</sup> Gradually dismantling these trade barriers could therefore bring major economic benefits — and not just for consumers and taxpayers. Liberalisation of the Swiss cheese market back in 2007, for example, proved that domestic producers also stand to benefit from free trade: the increase in exports more than offset the loss of market share resulting from fewer restrictions on cheese imports. Cheese producers became more competitive, bringing down prices and increasing the range of products.<sup>53</sup>

However, reducing tariffs does not automatically dismantle barriers to trade. Tariffs for imported industrial goods are fairly low, but manufacturing also faces what are known as 'shadow tariffs': companies have to collect relevant data, assess the duty due and

document the origins of goods. And where industrial goods are exempt from customs duty under free trade agreements, the importer must document the basis for this exemption. Parliament has, however, rejected a proposal put forward by the Swiss Federal Council in late 2019 to scrap import duties altogether. Now might be a good time to return to this discussion.

Although scrapping duty on industrial goods has been put on hold for the time being, Switzerland's Federal Customs Administration has recently simplified customs clearance procedures with its digitalisation project, DaziT. It estimates that DaziT could save Swiss companies engaged in cross-border trade in goods around CHF 125 million in regulatory costs each year.<sup>54</sup> DaziT does not, however, involve simplification of import duties, so the benefits remain limited.

### 2. Maintain bilateral agreements with the EU

The European Union is Switzerland's largest trading partner, accounting for more than half of its exports and almost three-quarters of its imports, so the country's relationship with the EU is of crucial importance. Since 1999, Switzerland has had a range of bilateral agreements governing its political and economic ties with the EU. However,

the relationship is coming under increasing pressure, as the EU is unwilling to update existing internal market agreements until a framework agreement has been signed. The Swiss People's Party (SVP/UDC) has also proposed a referendum on ending freedom of movement that fundamentally calls such bilateral agreements into question. Swiss voters will decide on the issue in September.

In some sectors of the economy, the government's reluctance to act has already caused considerable uncertainty, prompting job cuts and reducing profits.<sup>55</sup> Following the vote, Switzerland should therefore present proposals for a new framework agreement without delay. The top priority should be to maintain the existing bilateral agreements, which form the basis and prerequisite for further negotiations, such as an agreement on transmission of electricity between Switzerland and the EU.

### 3. Review and broaden strategic free trade agreements

As well as agreements with the EU and EFTA, Switzerland has 28 free trade agreements with 38 partner countries that ensure preferential mutual market access. These agreements differ in content and fall broadly into one of two categories: simple, first-generation agreements and more wide-ranging second-generation agreements. First-generation agreements focus primarily on trade in goods and regulate such issues as tariffs, technical barriers to trade and protection of intellectual property. Second-generation agreements also cover goods, investment, public procurement and sustainable trade.

Switzerland should review its existing first-generation agreements and broaden them to cover trade in services, which has grown in importance in recent years. The increase in the number of employees working from home during the COVID-19 crisis will accelerate the trend towards a global distribution of labour in the service sector, and many existing agreements lack the scope to address this shift.

The country also needs to conclude new, strategically advantageous agreements with partners, including major economic powers, such as India and Australia. Negotiations are currently under way with India. If Switzerland

is to remain competitive, its failure to have such agreements in place will put it at a disadvantage. And if its protectionist stance towards its own agricultural sector proves to be an ongoing obstacle to major new agreements, it should consider gradually dismantling these barriers to trade (see also Recommendation 1).

### 4. Update data protection

Switzerland's data protection rules are less stringent than those applying within the European Union, and so the EU wants to establish whether the Swiss legislation actually guarantees the same level of protection as its own legislation. Specifically, this relates to such areas as handling personality profiling for personalised recruitment of EU citizens. If the European Commission were to conclude that Swiss legislation does not ensure the same level of protection as EU legislation, this would seriously disadvantage the Swiss economy, and especially SMEs. Companies would have to demonstrate compliance with data protection standards every time they conclude a business deal. The additional bureaucratic load would drive up costs unnecessarily and generally make Swiss companies less competitive. It is therefore essential to overhaul the Swiss legislation, which dates back to 1993 and is long overdue for revision, and bring it in line with the digital age.



### Recommendations for businesses

1	Assess the maturity of trade compliance processes
2	Reassess supply chains
3	Make better use of automation and digital supply chain networks
4	Optimise international business location strategy

#### 1. Assess the maturity of trade compliance processes

An increasingly stringent regulatory environment means companies spend more and more time and resources on the administration involved in international customs and trade standards. Complex export control regulations restrict cross-border trade in some goods and technologies and penalise companies breaching them. It is not unusual for the customs authorities to impose fines of millions or tens of millions of Swiss Francs or impose short-term export bans on companies.

Companies must therefore analyse the maturity of their compliance processes and ensure they meet trade regulations. Modern software solutions, for example, ensure prompt checks on all trading partners, so companies can avoid embarking on business relationships with proscribed individuals or companies. They also enable businesses to optimise the quality and accuracy of relevant commercial information, such as tariff codes, export monitoring reference numbers and the origin of goods, saving time and money and averting the risk of fines or export bans — and reputational damage to the company. Companies can then address problems rapidly and proactively, whilst the software provides good-quality data for in-depth analysis and identification of areas for savings. This will give companies greater transparency over customs duties and, potentially, better enable them to compare suppliers in various countries and show greater flexibility in extraordinary circumstances — including the COVID-19 pandemic. Companies need to exploit these opportunities for digitalisation.

## 2. Reassess supply chains

COVID-19 has been a painful reminder to many companies of just how vulnerable their current supply chains are. The automotive, electronics and pharmaceuticals sectors have always been, and remain, particularly reliant on individual suppliers and regions. More than 200 of the Fortune Global 500 companies have a presence in Wuhan, the industrial city in China that imposed the world's first lockdown. For too long, many companies have focused solely on optimising costs and just-in-time production. They now need to rethink their global value chains and increase their resilience to major shocks, enabling them to make strategic use of free trade agreements. A broader supplier base and other measures to diversify risk are essential if companies are to protect themselves against disruption. Relocating closer to local sales markets or internal markets ('globalisation') could be a further option to consider. Also, Swiss companies seeking to redesign their supply chain could look in particular to countries in Eastern Europe, the Middle East and the Mediterranean.

## 3. Make better use of automation and digital supply chain networks

There is considerable room for greater automation of the main processes required for international trade. Global trade management platforms can optimise both the collection and use of commercial data, boosting end-to-end efficiency and driving down costs. Such tools provide far-reaching insights into the increasingly complex world of cross-border trade and mean managers have a broader basis for decision-making.

The same applies to value chains. The COVID-19 pandemic has highlighted how important it is for businesses to retain as detailed an overview as possible of their supply chains. Companies with a digital supply network (DSN) are at an advantage: DSNs transform the traditional linear view of a supply chain into a network with a digital core in which the individual areas are disaggregated to link all the value creation stages with each other. This makes supply chains much more visible and enhances cooperation and sharing of information. In a volatile environment, a DSN also means companies can respond more efficiently to unexpected events, including regulatory change, insolvency, disruptions to supply, sudden fluctuations in demand or armed conflict. This will be even more important in the future.

## 4. Optimise international business location strategy

Business location strategy underpins the success of multinational companies. A global presence has an impact on operating costs, availability of skilled staff and proximity to customers, with implications for management and general risk. Companies must ensure, however, that their strategy also reflects tariff and trade-specific factors. Many companies have paid insufficient attention to these areas in the past, but the increasingly complex and digitalised trade environment is constantly creating new opportunities for optimising strategy, and these need to form part of decision-making. Import and export regulations for specific goods may differ from country to country, so an appropriate approach in this area can substantially cut costs. Multinational companies should analyse and optimise their business location strategy and their business model holistically and could benefit from an international network of trade agreements.

Business location strategy also needs to take specific account of technological advances. Emerging technologies, such as augmented reality and 3D printing, offer further scope for international cooperation, and could affect existing development and production locations.



## 5.4. Talent and Skills



A large pool of well-educated talent has been key to Switzerland's success in recent decades. A relatively free and efficient labour market, a high-quality education system and Switzerland's openness to international talent have been the most important building blocks in this regard.

However, Switzerland's top position is at risk. Faced with accelerating digital transformation and an ageing population, government and businesses need to take action to make sure that Switzerland tackles a looming labour shortage and remains a leader in attracting, educating and retaining talent. Policymakers need to update the education system and labour market regulation. Businesses need to rethink their workforce strategy and tap into new talent pools.



## Recommendations for policymakers

1	Ease access for high-skilled international talent
2	Activate domestic labour market reserves by improving regulatory framework
3	Make the retirement age more flexible and link it to life expectancy
4	Boost STEM in schools
5	Upgrade education to the digital age
6	Adopt labour law for the digital age

### 1. Ease access for high-skilled international talent

Switzerland needs to improve its framework for talent from outside the EU, in order to ease access for high-skilled international talent and therefore address the looming labour shortage caused by an ageing population. First, policymakers should create 'innovation permits' that improve the framework for young, highly talented individuals. Second, policymakers should reduce the bureaucratic obstacles to business travel and international trainee programmes, and provide guaranteed standards of service for approved businesses ('trusted company status'). Third, policymakers should gradually harmonise processes across the country, digitalising authorisation processes and introducing key performance indicators for official agencies whilst preserving cantons' autonomy and freedom to make decisions.

### 2. Activate domestic labour market reserves by improving regulatory framework

Besides improving the framework for international labour mobility, Switzerland should also focus on the potential of the domestic labour market to address the looming labour shortage. There is a remarkable unused pool of labour in the Swiss labour market, mostly comprising women and people aged 50 or older. The Swiss government could help

to mobilise this additional labour potential by improving the regulatory framework. First, it could shift the tax system towards individualised income taxes so that two-income families are no longer penalised and women are given a greater financial incentive to work. Second, it could improve the financial incentives for older workers who want to keep working until or even beyond retirement age.

### 3. Make the retirement age more flexible and link it to life expectancy

Switzerland's fixed retirement age, 65 for men and 64 for women, is not helping to mobilise the additional labour potential represented by older people. Businesses have few incentives to recruit workers over the age of 60, whom they expect to retire over the next few years. This also makes businesses less motivated to invest in continuing training for older workers. Meanwhile employees, too, have little incentive to continue working beyond the official retirement age. Increasing the retirement age and also making it more flexible would keep workers in the labour market for longer and would also boost investment in the workforce. It would also make the pension system financially sustainable, which is desperately needed given that the state-run AHV pension fund will run out of assets in a few years.

Switzerland could follow the lead of countries such as Sweden or Canada which have both linked increases in the statutory retirement age to measures to make the retirement age more flexible so that employees are no longer required to retire at a fixed age. The longer employees continue working, the larger the pension they receive, and vice versa. The reference point for calculating pensions is average life expectancy.

### 4. Boost STEM in schools

Switzerland's looming labour shortage will particularly affect industries that rely on scientists, technicians, engineers and mathematicians (STEM). Already many businesses are struggling to fill STEM positions. When it comes to the number of graduates in STEM subjects Switzerland's performance is only average compared to OECD countries.<sup>56</sup> STEM graduates make up just 9% of the total. In Germany the figure is 15% and in the UK, 17%. Switzerland urgently needs to make improvements here. It is important to generate greater enthusiasm for technical occupations among young people and to strengthen cooperation between schools and businesses.

5. Upgrade education to the digital age

ICT skills are vital for future jobs. According to the OECD, Switzerland ranks fourth in terms of ICT specialists as a percentage of total employment.<sup>57</sup> However, as digital technologies are multidisciplinary, a country's talent pool should not only consist of IT specialists. Most employees need to be digitally skilled to some degree and Switzerland is not performing particularly well in this regard. Based on an international survey of executives conducted by the International Institute for Management Development (IMD), the availability of digitally skilled workers in Switzerland is only slightly better than the OECD average.<sup>58</sup> It is essential that young people acquire ICT competencies early in their education. A first step in this direction was the 'Lehrplan 21' ('Curriculum 21') initiative, which made media and computing a separate specialist subject in schools. However, the focus must shift from learning how to use digital devices to understanding how algorithms work or the basics of programming.

6. Adopt labour law for the digital age

According to a Deloitte survey, almost 50% of Swiss workers have been working from home during the COVID-19 pandemic. Even though the majority of these people will return to the office once normality has returned, the number of people working remotely is unlikely to go back to pre-COVID-19 levels. Remote working will become the 'new normal'. As Swiss labour law dates back to the pre-digital age, it will need to be adapted accordingly. For example, if remote workers check their emails at 11 pm they are not allowed under the current law to start working before 10 am the next morning because the mandatory rest period is 11 consecutive hours. Lifting such restrictions would make remote working easier. Questions have also arisen on how to lift restrictions with regard to cross-border employees. As a result of COVID-19, cross-border employees will no longer be travelling every day to work as they used to.



Recommendations for businesses

1	Implement a workforce strategy for the future
2	Embrace remote working
3	Focus on lifelong learning
4	Leverage and manage the 'alternative' workforce
5	Rethink the value of older workers

1. Implement a workforce strategy for the future

Faced with technological and social disruptors, businesses' success depends on having a strategy that reimagines all aspects of workforce management from accessing, engaging and rewarding to, ultimately, leading the workforce of the future. This strategy needs to be aligned with work, workplace and workforce capabilities across the entire organisation. Corporates need to think about how the nature of work is changing and what new skills are required given the rise of digital technologies (affecting work), how collaboration, productivity and consistency can be maximised through physical design and technology (the workplace), and how humans and machines can collaborate to alleviate the labour shortage (the workforce).



## 2. Embrace remote working

The number of people working from home in Switzerland has doubled during the COVID-19 crisis and is unlikely to go back to pre-COVID-19 levels. Faced with a long-term boost in remote working, companies need to make sure that they can successfully enable their employees to be as productive as possible when working from home. It is therefore vital to address a lack of appropriate technology, such as digital devices, virtual collaboration tools and platforms that will support dynamic work locations. Technology, however, is not the only important aspect when it comes to working remotely. Companies and employees need to find ways of organising themselves and reimagine how best to conduct productive team meetings and guarantee efficient teamwork. Managers need to communicate regularly with their teams and make sure they establish a new rhythm to achieve the best possible performance.

Furthermore, managers should act as a role model and pave the way for a healthier and more sustainable work environment when working remotely. Only then can companies fully reap the benefits of working remotely. At the same time, companies need to manage cyber risks and train their employees accordingly. Whilst COVID-19 may have reduced the threat of physical crime, targeted

cyber crime is on the rise as criminals exploit widespread anxiety about the pandemic. Employees need to be made aware of these issues and trained in managing sensitive data.

## 3. Focus on lifelong learning

Ensuring that employees are fully prepared for future trends requires willingness on the part of businesses to raise employees' awareness of lifelong learning, support them and actively promote continuing training/upskilling. It is important to realise that most careers no longer follow a linear path throughout an individual's working life but are increasingly dynamic and multidimensional. Businesses need to take steps to deliver learning to their people in a more personal way so that it is targeted to the individual and delivered at convenient times and in accessible ways. People need to be able to learn in their own time. Technology can play an important role in this. With growing numbers of providers now offering video, text, and programme-based curricula in smaller, more digestible formats, businesses have an opportunity to allow their workers to learn as and when they see fit.

## 4. Leverage and manage the 'alternative' workforce

Full-time jobs seem no longer to be the dominant career model in the labour market. So called 'alternative work arrangements,' such as contract, freelance and gig employment, have gone mainstream. In Switzerland 25% of people of working age are performing temporary, supplementary or project-based work on a full-time or part-time basis.<sup>59</sup> In the US, the freelance economy represents 35% of the workforce.<sup>60</sup> A recent Deloitte survey shows that many businesses are not yet ready to address this issue. To engage alternative workers strategically businesses have to move beyond 'managing' contractors and freelancers. What is needed is a wholesale 'rewiring' of how organisations operate with alternative labour — so that the appropriate talent is connected with the appropriate roles no matter where or how it is sourced. Part of the answer lies in connecting the various parts of the enterprise involved in hiring alternative workers, such as procurement, IT and HR.

## 5. Rethink the value of older workers

To address the emerging labour shortage, businesses need to think again about the value of older workers. According to a recent Deloitte survey, 40% of all economically active 50-64 year-olds' would like to continue working beyond retirement age. If this potential were fully tapped, it could substantially reduce the labour shortage. However, at present many companies still have few, if any, employees working beyond retirement age. Some regard older workers as disadvantageous to the company, in particular in terms of wage costs, pension contribution rates or productivity. Others may simply be unaware of the potential offered by older workers. Businesses that continue to view older workers as a disadvantage and focus their recruiting on younger age groups are making a strategic mistake. It is time to approach the issue strategically, create genuine cultural change and promote the diversity of the workforce.

## 5.5. Research and Development



Long-term economic growth is only possible through technological progress and thus depends critically on research & development (R&D) – or so says the neoclassical economic growth model, in particular the Solow growth model. This applies especially to an advanced, high-cost economy such as Switzerland. But productivity growth has been disappointing, highlighting the need for a revival, in which R&D would be a crucial element.

Switzerland is already a leading research nation, as can be seen from the fact that it has the highest number of patents per capita in Europe.<sup>61</sup> High salaries can only be maintained vis-à-vis foreign competition if they are backed by correspondingly high productivity. And since Switzerland is operating at the front edge of technological knowledge and has little scope to improve by simply copying technological leaders, R&D is crucial for Swiss competitiveness and prosperity.

The value of strong domestic R&D has been highlighted by the COVID-19 pandemic. Research to develop a vaccine, improve testing or develop a mobile application to allow easier contact tracing, is crucial to dealing with

the pandemic. Switzerland has been strong in several R&D fields, such as pharmaceutical research, whilst weaker in digital technologies, especially in creating home-grown digital global companies, as shown in the Deloitte study, “Switzerland’s digital innovation capacity”, in which Switzerland is ranked lower for patents in digital technologies.<sup>62</sup>

Utilising digital technologies to a greater degree across the board would be beneficial. Policymakers can bring this about not through industrial policy but by creating an attractive framework for R&D, both domestically and by integrating Switzerland in multinational research programmes, such as the Horizon Europe programme. Collaboration is key between academia and business, and also between businesses and their peers and non-traditional partners, such as digital companies. Businesses should also implement agile development processes and foster talent for R&D.



## Recommendations for policymakers

<b>1</b>	No government industrial policy, but an attractive framework for business research
<b>2</b>	Secure Switzerland's participation in Horizon Europe
<b>3</b>	Foster R&D clusters and collaboration

### 1. No government industrial policy, but improve framework for business research

The first is almost as important as the second. Whilst it might be tempting to pick the fashionable technology of the day (for example solar power, batteries, AI) and encourage its growth, the government is not well placed to pick winner technologies. Solar power is one example. Germany once strongly encouraged domestic production – and unsuccessfully. The much better route is to provide the framework for R&D and let business decide what to work on. An important part of that framework is taxation: for example, the corporate tax reform patent boxes, which provide incentives for R&D.

A second important aspect is talent, both domestic and foreign. Digital and entrepreneurial skills should feature more strongly in school curricula, without undermining essential underlying subjects, such as languages or mathematics. The framework for international talent mobility currently puts Switzerland at a disadvantage compared to other leading business locations. More emphasis needs to be placed on attracting highly talented graduates, fostering international intra-company mobility and digitalising and harmonising immigration processes.<sup>63</sup>

### 2. Secure Switzerland's participation in Horizon Europe

An attractive framework includes participation in international research initiatives. The largest in the world is the EU's Horizon Europe initiative, the ninth instalment of which is slated to run from 2021-27 and has a budget of about EUR 100 billion. Just as important, if not more so, is the opportunity for Swiss research institutions to collaborate in this initiative with their peers across Europe. Swiss participation is currently under negotiation; securing it should be a priority. Success depends on wider Swiss-EU relations, and therefore a framework agreement is important, as well as preservation of the bilateral agreements.

### 3. Foster R&D clusters and collaboration

Research benefits immensely from clusters: geographic concentrations of specialised businesses and associated institutions, as in Silicon Valley. The state has a role to play in particular in universities. The Federal Technical Universities play an immensely important role in creating start-up and business research clusters in the regions around them. Universities in general can incubate and encourage research and foster cooperation and commercialisation. This applies not only at the very top — a big business, revolutionary

research. Cooperation between SMEs and smaller universities should be encouraged as it can help generate smaller, streamlined and focused research programmes. Activities to foster clusters should be maintained and, where they are proving beneficial, increased. A further role for government is to finance research that is directly in the public interest. A notable — and timely — example would be in the area of health. Whilst vaccines tend not to be hugely profitable for pharmaceutical companies, they provide major public health benefits.



## Recommendations for businesses

- 1 Implement agile development processes
- 2 Foster talent for R&D
- 3 Leverage collaboration across the board
- 4 Customer engagement and feedback to accelerate R&D

### 1. Implement agile development processes

Business has a crucial role to play in R&D. Internal development processes are the first area they should look at, accelerating programmes through iterative instead of linear processes in order to adjust more rapidly to the fast-changing environment. Useful techniques are Scrum, Design Thinking and Lean Start up; 'fail fast', 'pivot fast'. Accept that a problem might not be fully defined upfront, that circumstances are changing fast, customers might change their preferences and competitors might leap ahead with a new development. Adapting an evidence-based, lean, iterative process can accelerate R&D in the midst of uncertainty. This is not least important with view to the return of investment of R&D.

The pharmaceutical industry has experienced declining returns over the past decade, as the Deloitte report "10 years on" shows.<sup>64</sup> Agile development processes can help halt or reverse that decline.

### 2. Foster talent for R&D

Attracting and developing talent to drive research is crucial. Digitalisation has been increasing during the pandemic, in both depth and breadth, expanding into sectors formerly less digital. More and more companies are therefore competing for digitally skilled talent. Companies need to attract this talent as well as invest in the skills of the workforce they already have. Top talent is attracted by a stimulating, diverse working environment, offering an opportunity to develop skills further in a digitally-savvy company. Diverse teams tend to be more productive. Exchange and diversity are major factors in building knowledge and allowing employees as well as their employers to improve their skillset. Diversity includes making stronger use of traditionally overlooked talent segments, such as older employees, or less conventional types of employment, such as part-time work, remote work or gig workers. Companies should encourage interest in lifelong learning and actively support upskilling.

### 3. Leverage collaboration across the board

Collaborate with external partners, both traditional and non-traditional. Collaboration with universities, including between smaller universities and SMEs is also important. Digital technologies are disrupting R&D. Data is now being used in different ways, driven by technological partnerships and opening the way for non-traditional partnerships as well. These include collaboration with peers, such as in the form of joint ventures, to accelerate development of an expensive technology crucial for all partners, such as batteries for electric vehicles. The value of collaboration highlights the benefits of research clusters and should encourage business to relocate their R&D activities strategically, to take advantage of and strengthen these clusters.

### 4. Customer engagement and feedback to accelerate R&D

Non-traditional collaboration can also increase the use of customer feedback in the R&D process. One example would be pharmaceutical research. Traditionally, such research obtained patient information from doctors. This can be complemented by direct feedback loops from patients, both in the form of clinical trials or engaging patient groups as well as accessing patient feedback digitally, such as online forums. However, gathering patient feedback can be both time- and cost-intensive and the costs and benefits need to be monitored throughout.

## 5.6. Tax environment



Switzerland's economy is well placed to compete globally for business, not least because its tax environment in general is attractive to both businesses and their staff. Attractive tax rates, efficient administration and a unique climate of mutual trust between taxpayers and tax authorities have combined to attract many multinational companies to Switzerland — thereby creating many highly skilled jobs. Healthy competition between individual Swiss cantons in terms of fiscal policy

underpins this success, and tax cuts have almost always grown the tax base in the long term, by fuelling growth and the number of contributors.

If Switzerland is to thrive in the global competition for business and maintain its prosperity, an attractive tax environment is a 'must-have' rather than merely a 'nice-to-have'. The country has much higher costs than its global competitors, particularly higher

salaries, and these costs are only partially offset by lower taxation.

In recent years, global tax competition has come under increasing scrutiny, particularly from large countries keen to contain competition for the tax base. They call for fairness in international taxation, yet at the same time do everything they can to attract new businesses to their own shores. For example, the OECD is working on reforms that would undoubtedly have a negative impact on Switzerland's attractiveness and reduce its tax revenues. The COVID-19 crisis and rising levels of debt are likely to increase the pressure from other major economies over the coming years.

This means that Switzerland needs to take action at the international level to resist pressure from other countries and organisations and to defend its tax position. It should not pre-empt compliance with new international regulations but rather make full use of its room for manoeuvre. Domestically, meanwhile, the fiscal system must remain as attractive and efficient as possible. This means pragmatic tax legislation, business-oriented tax authorities and attractive rates of taxation.

There is also room for improvement within companies. They are under public pressure to make maximum use of the flexibility offered by international fiscal rules, so it is particularly important that they maintain a good relationship with the tax authorities — both in Switzerland and abroad — and remain transparent. Tax departments within businesses must also make greater use of digital technologies to boost their efficiency.





## Recommendations for policymakers

- 1 Promote international tax competition
- 2 Maintain tax competition between Swiss cantons
- 3 Cultivate the trust between taxpayers and the tax authorities
- 4 Improve the efficiency of the current tax system

### 1. Promote international tax competition

Switzerland cannot entirely sidestep efforts to contain global tax competition. The country recently responded to pressure from the EU and the OECD with a referendum on ending preferential tax regimes for multinationals at canton level. The OECD has now put forward proposals aimed at shifting taxation of company profits away from the countries where goods and services are produced to those where they are sold. This would make small countries, including Switzerland, less attractive as company headquarters, and which would reduce their tax base. According to initial estimates, Switzerland could lose up to CHF 5 billion,<sup>65</sup> so it must make every effort to maintain international tax competition. If small countries join forces, they could dilute the

OECD's plans or even block them entirely. In any case, it is possible that the COVID-19 crisis will now delay the reforms for a while, giving Switzerland more time to forge the necessary alliances.

### 2. Maintain tax competition between Swiss cantons

The favourable tax environment in Switzerland has made a major contribution to tax competition both between and within cantons by giving municipalities in most cantons the autonomy to set their own local tax rates.,

Competition is not confined to rates of taxation: it also includes the way in which tax is administered in different cantons. Cantons that have an efficient, business-oriented and pragmatic tax administration as well as attractive tax rates are the most successful. And the practical relationship with taxpayers will become increasingly important, as the majority of cantons with effective rates of corporate taxation (including direct federal tax) of approximately 12-14% have similarly attractive international rates of taxation.

If Switzerland wants to preserve its advantageous tax environment, retaining healthy competition between cantons is particularly important. Such competition provides canton-level tax authorities with

an incentive to keep focusing on the economy as a whole; it also serves as an effective sanction if they do not.

### 3. Cultivate the trust between taxpayers and the tax authorities

Many countries have attractive rates of taxation, in particular corporate taxation, but where Switzerland stands out is the mutual climate of trust between taxpayers and the tax authorities. It is the only country where taxpayers and the tax authorities can meet on such an equal footing, where taxpayers are generally seen as partners rather than opponents and as clients rather than rule-takers. Important tax issues can, for example, be openly discussed with the authorities ahead of decisions being made and the tax implications are noted in a binding prior ruling. The efficiency of Swiss tax administration and the way in which it deals with taxpayers as equals provide a substantial competitive advantage as important, indeed perhaps more important, than advantageous rates of taxation. And — unlike tax cuts — such relationships costs the government nothing.

Individual taxpayers have the obligation not to jeopardise this unusual relationship of trust and to be fair and transparent in their dealings with the tax authorities.

### 4. Improve the efficiency of the current tax system

The tax system and tax environment are evolving all the time and some individual taxes, pieces of fiscal legislation or provisions, no longer make sense or need to be adapted. A few examples are provided below.

It is time for a review of the legislation on withholding (anticipatory) tax as the current rules make it economically unviable to issue corporate bonds in Switzerland. The proposed reform at federal level to strengthen the Swiss capital market is to be welcomed, but its success will depend on the details of new legislation. As part of this planned reform, legal entities within Switzerland and foreign investors will be exempted from withholding tax on Swiss interest-bearing investments. To protect tax revenues, the plan is to levy withholding tax on all interest-bearing investments by natural persons within Switzerland, including, for the first time, foreigners. As part of the reform, turnover tax will also be levied on bonds. Here, too, short-term falls in tax revenues are likely to be more than offset by higher revenues in the long term.

There has long been discussion about abolishing all stamp duties, which are unusual internationally but still provide a significant level of revenue that would have to be replaced from other sources. There is also still scope to improve the way all forms of taxation are administered, including VAT.

In terms of taxation of natural persons, changes to the individual tax regime could reflect social trends and finally end the current penalisation of married couples under the tax rules.



## Recommendations for businesses

- |   |  |
|---|--|
| 1 | Maintain open and transparent relationships with the tax authorities |
| 2 | Publish transparency reports   |
| 3 | Digitalise taxation departments                                      |

### 1. Maintain open and transparent relationships with the tax authorities

An ever-changing global tax environment poses challenges for businesses. Companies continually need to check which countries and regions are most fiscally advantageous, as the higher the rates of taxation in a country or region, the more a company has to earn to pay its tax bill. Companies' relationships with local tax authorities are also important: they need to cultivate a sound and transparent relationship with the authorities and to highlight the important role they play in the economy of countries where they operate.

### 2. Publish transparency reports

Over recent years, the media have focused extensively on the tax optimisation strategies of individual multinational companies. This provided encouragement to politicians wanting to close loopholes, secure greater global coordination and harmonise tax systems and legislation. One such example has been the OECD's planned tax reforms, which would negatively impact on Switzerland and other countries. Companies should counter this growing public pressure by demonstrating to the public that they pay tax and contribute to financing the state. One way of doing this would be through a transparency report. External corporate communications should also focus much more on these issues.

### 3. Digitalise taxation departments

Companies wishing to future-proof their operations cannot avoid using digital technologies. The COVID-19 crisis will accelerate digitalisation, including in the area of taxation. New technologies offer considerable opportunities, including in the documentation of tax processes and the scrutiny of tax assessments. A range of technologies can add substantial value to companies by making their tax departments — and their staff — more efficient. Big data is one example: it can

simplify the use of and access to information and make it easier for tax departments to analyse corporate activities. Robotic process automation (RPA) is another example: data can be collected, tax returns submitted and reports compiled automatically, increasing the speed of such processes and minimising error. Crucially, companies must take a holistic approach. Digitalisation of tax departments must go hand in hand with appropriate adjustments to upstream and downstream processes. Training for managers and their staff is also crucial.

## 5.7. Sustainability, Energy and Infrastructure



### 5.7.1. Sustainability

Sustainability is more than just a set of guidelines on conserving resources and protecting the environment. It has justifiably taken on central strategic importance for both governments and business. Government institutions and representatives of the private sector in Switzerland should therefore put more initiatives and measures in place to ensure they act, and manage, sustainably.

Sustainability may have disappeared temporarily from the headlines as Switzerland and the world confront the COVID-19 pandemic, but it remains an urgent problem. Determined action is needed — now more than ever. The challenges posed by the pandemic require a tailored and resilient response from society and the private sector, and could provide an opportunity to focus more on sustainable instruments to help Switzerland emerge from the crisis.

Specifically, sustainability involves equitable relationships based on trust with customers, employees and society more broadly, action against corruption and unethical behaviour, sustainable use of resources, and active management of risk, including some previously neglected areas such as climate risks (physical risks and transition risks) in particular.<sup>66</sup> Strategies and measures should include specific and, where possible, measurable targets and be integrated into incentive and evaluation systems.





## Recommendations for policymakers

<b>1</b>	Achieve the Paris Climate Agreement targets and encourage further international negotiations
<b>2</b>	Promote research into and development of sustainable smart technologies
<b>3</b>	Introduce a wide-ranging carbon tax and redistribute the revenues to the public
<b>4</b>	Develop a clear vision of Switzerland as a sustainability hub

### 1. Achieve the Paris Climate Agreement targets and encourage further international negotiations

When it ratified the Paris Climate Agreement in 2017, Switzerland set itself the target of a 50% reduction in its greenhouse gas emissions by 2030 compared with 1990 levels. Its CO<sub>2</sub> Act actually goes further, requiring Switzerland to reduce its net carbon emissions to zero by 2050. The Swiss Federal Council's vision is that most of this reduction should take place within the country's borders and focus primarily on making buildings sustainable and private transport more environmentally friendly.

Alongside developing new sustainability strategies at national level, it will be important for Switzerland as a strong but politically neutral economy to use its diplomatic clout to help achieve global climate goals and encourage new initiatives. The fact that a leading economy like the US has decided to opt out of the Paris Climate Agreement makes it even more important that other countries step forward to drive the sustainability agenda. Despite being a small country, Switzerland can exert a substantial influence in international negotiations on climate change.

The international community would surely welcome Switzerland taking a more proactive role – one which could contribute more to the work of international bodies. International declarations and guidelines, such as the UN's 17 Sustainable Development Goals, the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, and the UN Global Compact (an initiative on sustainable and responsible corporate governance) could provide Switzerland with a helpful framework.

### 2. Promote research into and development of sustainable smart technologies

Research into and development of climate-friendly products, systems and processes can give a small, export-oriented country like Switzerland an effective means to combat climate change. And the whole world would benefit from access to Swiss solutions: a multiplier effect that suggests such research should be stepped up. Such research also forms the basis for technical innovation that can be applied in practice. Governments do not normally take responsibility for research and development of innovative technologies but they can influence the framework within which it takes place and, indirectly, help support industrial development.

Pressing issues such as climate change are not a reason for the state to formulate industrial policy but countries should ensure that they support basic research and, in some specific cases, pilot projects. One priority in Switzerland would be authorisations: licences permitting, for example, the testing under real-life conditions of a smart grid for electricity. Communicative networking and management of components of the electricity supply system will ensure the system operates more efficiently and safely.

However, the Intergovernmental Panel on Climate Change (IPCC) has made it clear that the far-reaching changes needed to achieve the Paris Climate Agreement go beyond electricity generation: action is also needed in key areas such as transport, agriculture, industrial processes and urban infrastructure. It would be possible to envisage government incentives to create smart homes, smart cities and smart farming, enabling the benefits of digitalisation to be rolled out. This would improve energy efficiency in homes, towns and cities, on the roads and in the countryside, helping to mitigate climate change and boosting sustainability.

### 3. Introduce a wide-ranging carbon tax and redistribute the revenues to the public

To achieve its national carbon reduction targets, Switzerland should introduce measures to maximise efficiency. These would include a carbon tax – something on which, for once, all economists agree. Such a tax would effectively attach a price tag to pollution and ensure fairness by making those responsible for damaging the environment pay for their actions. Incentive taxes are also much more effective than subsidies: in 2008, Switzerland introduced a nationwide carbon tax of CHF 96.00 per tCO<sub>2</sub> on fossil fuels including petroleum, natural gas and coal. One-third of the revenue this generated was invested in measures and grants to upgrade buildings, and the remaining two-thirds was repaid directly to Swiss nationals as a per capita payment via health insurance schemes.

However, the reach of the current carbon tax is too limited. To make it more effective, it needs to be extended to diesel and petrol. The Swiss Parliament is currently discussing proposals to do this, although similar initiatives have foundered in the past. However, this could change as climate change moves up the agenda for an increasingly broad swathe of the population.

### 4. Develop a clear vision of Switzerland as a sustainability hub

The government must develop an overarching vision of Switzerland as a sustainability hub — a conceptual umbrella for all sustainability projects that brings together individual measures with a clearly defined set of goals. Specifically, the state could support companies and academic research institutes through improvements to the regulatory framework, including tax incentives, measures to promote academic clusters, and arrangements that make cooperation between universities, universities of applied sciences and business more attractive. One model for this could be ‘Crypto Valley’ in the Swiss town of Zug, which is based on the US’s Silicon Valley and illustrates how attractive conditions, including lighter regulation and tax breaks for entrepreneurs, talents and investors have created an internationally recognised cluster in the area of blockchain technology.

Switzerland also has the potential to play a leading role in developing sustainable technology. Building on its excellent reputation internationally, it is in a strong position to promote sustainable projects and processes. Switzerland can do this in much the same way as companies communicate their activities, tools and commitment to the outside world, thereby boosting their own attractiveness.



### Recommendations for businesses

1	Define sustainability and formulate a clear strategy
2	Integrate sustainability aspects in supply chain management
3	Create supply chain transparency to enhance risk management effectiveness
4	Make use of potential for digitalisation at all levels

#### 1. Define sustainability and formulate a clear strategy

To be able to operate sustainably, companies need to define what ‘sustainability’ actually means in a business context. They need to formulate a clear strategy as the basis for specific measures and measurable targets, which should be incorporated into the incentive and evaluation systems of decision-makers and make achieving these targets part of relevant reference values. Ultimately, sustainability means companies taking responsibility for their employment, environmental and economic impacts on society. Incentives for investing in and financing sustainable companies and projects can be seen as a crucial lever to achieve objectives, but it is also important

that companies’ profits are themselves earned in an environmentally and socially sustainable way.

Consistent integration of sustainability into individual company’s business activities, products and services is absolutely crucial, and those that see corporate social responsibility (CSR) as marginal to their business model and core business processes are falling short. Sustainability should not be something that can simply be tacked on to a company’s core business. Many of the areas associated with it, such as health and safety at work, employee satisfaction, diversity, energy efficiency and minimum standards in supply chains, underpin commercial success. The benefits for committing to sustainable ways of doing business include more efficient use of resources, a healthier and better motivated workforce, more extensive risk management, an enhanced corporate image and greater attractiveness to foreign investors.

#### 2. Integrate sustainability aspects in supply chain management

Sustainable supply chain management requires separate scrutiny of each individual area of activity, from procurement and suppliers to the value chain and – of course – the product itself. In particular, managing supply chains sustainably means ensuring sustainable

procurement processes and including sustainability criteria in the selection and evaluation of suppliers. The adjustments companies are currently making to their supply chains as a result of COVID-19 should include filling gaps in such criteria, and there is evidence that the current situation has brought about improvements in both supply chains and sustainability. For example, local suppliers generate fewer emissions because they do not have to transport goods so far. Criteria like these may range from documented environmental management systems to detailed requirements in areas such as waste and recycling, climate change mitigation or the use of chemicals. Skills development and training for suppliers through workshops and discussions is also important, as is local monitoring of compliance with social and environmental standards. 'Product chain certificates' that are currently applied to timber, paper and cotton goods can help companies monitor sustainability across the entire value chain, from raw materials to end-product. And many companies still have scope to optimise the end-product itself, for example by using environmentally friendly packaging or halting the use of certain materials and chemicals, such as coatings, PVCs and plasticisers. Product innovation can also reduce pollution across the value chain whilst at the same time opening up new markets and groups of customers.

### **3. Create supply chain transparency to enhance risk management effectiveness**

More and more consumers are now demanding traceability, sustainability and transparency in supply chains. Increasingly, they are basing their purchasing decisions on information about manufacturers and their suppliers and will switch brands if companies do not comply with sustainability criteria. They see companies as responsible for their entire supply chain, both pre and post-purchase, and believe they should be held accountable for any unsustainable behaviour by their suppliers. Many are also now willing to pay more for products with completely transparent and sustainable supply chains, from production of raw materials right through to the handling of waste. This means that businesses need to create greater transparency around the use of their products and the sources of the necessary raw materials.

Many find it difficult to achieve this transparency, however. A Deloitte study shows that a majority of directors of purchasing have only a limited overview of their supply chains — and in some cases no overview at all.<sup>67</sup> The traceability of flows of goods and services poses these individuals and their companies with an almost insuperable technological challenge: among other things, product ranges may comprise several thousand components, each of which has to be audited for sustainability.

Modern technologies including blockchain and artificial intelligence (AI) can help to ensure seamless and transparent tracking across entire production and logistics chains in real time. They can also substantially improve supply chain transparency and accelerate the compilation and processing of data, minimising product liability risks and enhancing companies' reputation.

### **4. Make use of potential for digitalisation at all levels**

Digitalising and automating business processes offers further potential for companies to conduct business in a more sustainable way. In particular this involves standardising and harmonising business processes from the front end (consumers) to the back end (suppliers). An end-to-end business process includes all activities essential to fulfil internal or external requirements of goods and services, from manufacture through to delivery. Many different models have been devised to illustrate the structure of such processes, including make-to-stock (M2S) and make-to-order (M2O), engineer-to-order (E2O), purchase-to-pay (P2P) and order-to-cash (O2C), buy-to-scrap (B2S), hire-to-retire (H2R), and record-to-report (R2R). All these models can help cut internal operating and process costs and boost sustainability — provided the company has an agile and consistent model for data compilation and analysis as the basis for new digital services and forms of production. Here, Swiss companies still have some way to go.

## 5.7.2. Infrastructure and Energy

Cities and regions are only as attractive — to both individuals and businesses — as their infrastructure. From water and energy supply systems, waste disposal and wastewater management to transport, logistics and communications, the security, efficiency and cost of technical infrastructure are key elements on which locations compete for residents and jobs. They are also the backbone of Switzerland's economic and social development.

The COVID-19 pandemic has served as a kind of stress test and has thrown into sharp relief the importance of a modern, functional infrastructure, particularly in the areas of digital communications and energy supply.

The rapid switch to working from home within many organisations as a response to lockdown, for example, is something an economy can only achieve if its digital infrastructure is robust. The last few months have shown that this is not the case in many countries.

The pandemic has also demonstrated that the stability of energy systems and security of supply are particularly vulnerable when the response of international partners is to focus on their national customers and withdraw from cross-border energy networks — a phenomenon that has also been evident in other sectors. Switzerland must therefore work with sector stakeholders to enhance and broaden its infrastructure and energy supply strategy so that it can continue to compete at a high level in these areas.



### Recommendations for policymakers

- 1 Ensure first-class physical and digital infrastructure and guarantee energy security
- 2 Promote competition and create legal certainty in the infrastructure and energy sectors
- 3 Make packages of measures more specific and clarify how the targets in Switzerland's 'Energy Strategy 2050' can be achieved
- 4 Accelerate the roll-out of new technologies

#### 1. Ensure first-class physical and digital infrastructure and guarantee energy security

Compared to most countries Switzerland performs very well on many infrastructure indicators. But infrastructure needs to be continually updated. To support digitalisation, develop its infrastructure and broaden its energy supply, Switzerland should create the conditions that promote innovation for tomorrow's world. These conditions need to be framed openly, to be scalable and flexible and help shorten innovation cycles. This has worked well in the fintech sector, for example, including

through light-touch regulation for smaller companies.

Measures are also needed to tackle the issue of monopolistic providers. Depending on a single provider or very few providers poses a number of risks, including cyber attacks on energy supply.

Energy security must be given greater priority. The COVID-19 crisis has shown that many countries meet their own needs first, as was the case with face masks and drugs, for example. Much the same is also likely to apply in electricity supply. Ensuring security of supply therefore means avoiding over-dependency on foreign producers. However, the aim should not be complete self-sufficiency. Instead, Switzerland should generate more electricity itself, especially in the winter months, to make up for the shortfall resulting from its new 'Energy Strategy 2050', which among other things means no new nuclear power plants are being constructed. A reliable assessment is needed of the technologies required to achieve this and the costs involved. This assessment must reflect the latest technological developments and be completely objective. And it must not exclude any specific technology — including nuclear power. Which solution is eventually adopted will, however, be a political decision.

## 2. Promote competition and create legal certainty in the infrastructure and energy sectors

The strong Swiss Franc and intense competition have forced Switzerland's export sector to become lean and competitive, but the position of its domestic sector is rather different. There is comparatively little competition in telecommunications, transport and energy, and so productivity is relatively low.<sup>68</sup> To increase economic efficiency, promote innovation and ensure it is equipped to tackle future challenges, the country must therefore open up at least part of the state infrastructure to competition whilst at the same time ensuring state monopolies do not then become private sector monopolies.

In particular, successful liberalisation means dismantling obstacles to market access: new and smaller providers must be given opportunities to operate under the same conditions as existing and larger public companies. Liberalisation of the energy sector must also ensure more dynamic pricing. The only way consumption can be reduced is also to reduce supply, and this in turn would lead to the development of new business models.

The lack of legal certainty is a further issue that must be tackled, as companies will be reluctant to invest if the statutory framework is unclear. The process of updating the legislative framework for electricity has been under way for years, but it remains unclear how the business-to-consumer (B2C) electricity market will be liberalised. The delays mean investment in B2C digitalisation is being deferred until it becomes clear when, or indeed if, it will generate a return. Companies will make these much-needed investments in new business models only if the government creates legal certainty to protect investments.

## 3. Make packages of measures more specific and clarify how all the targets in Switzerland's 'Energy Strategy 2050' can be achieved

To make Switzerland's energy supply gradually more environmentally friendly and sustainable, the Federal Council has adopted 'Energy Strategy 2050'. The strategy also aims to cut energy consumption, increase efficiency and promote the use of renewables.<sup>69</sup> It includes a number of measures, including introduction of a network supplement, the gradual transition out of nuclear power and the roll-out of smart meters and other intelligent tools to manage and regulate energy consumption. The state should now specify further packages of measures and accelerate the processes needed to put them in place.

The conflict between the goal of an effective and successful national energy supply and reducing the population's energy consumption must also be confronted. It would probably be easier to reduce consumption by means of higher prices, which create incentives to save electricity. However, this would have a negative impact on Switzerland's economic competitiveness, not least in the manufacturing sector, which already faces significant challenges as a result of the strong Swiss Franc and the COVID-19 crisis. Politicians must therefore decide which goal they favour: providing energy competitively within the country or reducing consumption.

It is also important that the goals of the energy strategy can be achieved using existing measures. Offsetting the impact of the decision not to build new nuclear plants requires reliable and environmentally-friendly alternatives, which will be a major challenge. Over the past 50 years, Switzerland's strategy, a combination of non-hydro and carbon-free nuclear power generation, has served the country very well. Importing electricity from Germany and Poland that has been generated in a lignite-fired power station would make a mockery of the new energy strategy. The Swiss Federal Electricity Commission has questioned whether the measures adopted so far will ensure security of supply once nuclear plants are decommissioned. During the winter months

in particular, bottlenecks are much more likely because of Switzerland's high dependency on imported energy. Neighbouring countries are also less able to export electricity because production is less controllable, posing a further risk. Switzerland therefore first needs to define how much of its requirement for energy it can generate itself — and not just over the course of a whole year but also over short periods. Second, it needs to make further adjustments to the current measures to guarantee security of supply and achieve the other targets set out in the energy strategy.

## 4. Accelerate the roll-out of new technologies

The International Energy Agency estimates that towns and cities are responsible for 70% of global greenhouse gas emissions and 70% of global energy consumption.<sup>70</sup> Adaptation of urban infrastructure can therefore be a very effective means of pursuing sustainable economic goals. Projects on smart cities and dynamic pricing for public transport offer huge potential, which the state should use to boost efficiency.

The necessary technologies and networking (employing the Internet of Things) require a high-quality data network. If Switzerland is to remain competitive in the field of digital innovation, it should be open to new technologies such as 5G, albeit with due consideration of potential minor health risks. After a successful risk analysis, these technologies must then be rolled out as rapidly as possible and not delayed unnecessarily as a result of bureaucratic processes.



## Recommendations for businesses

- 1 Provide employees with a mobility budget
- 2 Put cyber security measures in place to protect critical infrastructure

### 1. Provide employees with a mobility budget

To reduce the number of private cars on the roads, companies could replace company cars with individual mobility budgets that employees could 'spend' on alternative modes of transport. This would make employee mobility both more sustainable and more flexible. Individuals travelling for work would be free to use their mobility budget for public transport, such as buses and trains, car-sharing schemes, e-bikes, taxis or other solutions. This kind of budget is particularly popular with younger employees, as it is flexible and offers different modes of transport for different situations, moods and tastes. In any case, many employees no longer see having a company car as a status symbol.<sup>71</sup> For companies, meanwhile, mobility budgets mean they can reduce the size of their fleet and invest the money freed up in more CO<sub>2</sub>-neutral vehicles. Ultimately, a measure of this kind may also enhance a company's reputation and make

it more attractive as an employer, particularly among younger age groups.

### 2. Put cyber security measures in place to protect critical infrastructure

There has been a rise in cyber crime during the pandemic, with individuals working from home particularly targeted. This demonstrates the substantial risk that IT structures face both nationally and at the individual business level. However, this affects not only employees working from home but also the entire critical energy, telecommunications and transport infrastructure, which is at risk from hacking. The ongoing digitalisation of these sectors makes it essential that additional measures are taken to manage cyber risk.

As cyber threats increase, it is important that companies continually update their staff, train them in handling sensitive data and remind them of the company's code of conduct for handling data security. Cyber security experts must be involved from the outset in developing new systems so that they can identify weaknesses at an early stage. They also need continually to monitor, identify and assess cyber risks, as new participants join and ecosystems change constantly. It is not just supply systems as a whole that are at risk. The many individual components that may be part of a critical infrastructure network,

but do not have their own integrated security measures, are also vulnerable.<sup>72</sup> It is therefore increasingly important for companies to look at these individual components, pool skills to deflect attacks, and embark on wide-ranging alliances to ensure the security of critical infrastructure.



## 5.8. Financial markets



A country's financial markets — its money, capital and currency markets — are major drivers of its prosperity. Switzerland's financial markets are particularly critical to its economy. Investors around the world view Switzerland as a safe haven because of its political stability, strong economy and the strength of the Swiss Franc. In addition, its banks and insurance companies constitute a world-famous financial centre that contributes 9.4% directly to the overall Swiss GDP, and 12.4% indirectly.<sup>73</sup>

Financial markets and companies have been through turbulent times. The 2008 global financial crisis, the subsequent regulatory changes, and ongoing digitalisation have all radically transformed Switzerland's financial sector. The increase in the value of the Swiss Franc against the euro prompted the Swiss National Bank to make massive interventions on the currency markets, with unintended knock-on effects. And now the COVID-19 crisis and the consequent extension of low interest rates are further testing the financial sector. The Swiss (and European) financial service sectors have underperformed relative to their US peers due to low interest rates, higher regulation and lack of scale as a result of less financial sector consolidation in Europe.

The regulatory framework should take competitiveness into account to a larger degree, not least due to the likely increased competition from financial centres such as the UK (London) and the Channel Islands. Companies, meanwhile, need to ramp up their digitalisation strategies, both to improve client interactions and to reduce costs.



## Recommendations for policymakers

1	Rethink the regulatory framework for the financial sector
2	Smart regulation of cryptocurrencies
3	No expansion of state investment controls
4	Formulate clear standards for sustainable finance

### 1. Rethink the regulatory framework for the financial sector

Switzerland's financial sector has been through turbulent times recently. Between 2007 and 2017, the proportion of GDP earned by the sector fell from almost 13% to 9%,<sup>74</sup> and the global financial crisis prompted substantial restructuring and consolidation in banking. The regulatory framework should take competitiveness into account. Changes worth considering in this context might include abolishing stamp duty and reforming withholding tax. Switzerland needs to make use of the scope it has to remain competitive in relation to other countries and, particularly, the EU. This is even more important as a result of Brexit, there will be increasing competition from

London as it seeks to build on its reputation as a major financial hub. But Switzerland faces obstacles in differentiating itself from the EU: as well as using the domestic scope available to it, it needs access to other markets — and particularly to the EU market, which requires at least some harmonisation with EU rules. One contentious issue is stock market equivalence for the Swiss stock exchange. A satisfactory solution here will likely depend on a successful conclusion of the Swiss-EU framework agreement. In terms of market access for private banks, if the bilateral negotiations do not succeed in securing more favourable conditions, Switzerland should rethink its approach to incorporating EU regulations and consider a more pragmatic approach to better serve growth regions.

### 2. Smart regulation of cryptocurrencies

Switzerland has been central to the development of bitcoin and other cryptocurrencies, notably as the location of major start-ups in this area. The Swiss authorities have also been receptive to new digital currencies and distribution ledger technology. As a result, the country has become a market leader in this small but promising area, but there are now growing calls for tighter regulation.

Any regulation must not hamper technological progress: the financial sector must be able to make use of the benefits of new technologies, including greater efficiency, reliability and security in payment transactions and in asset management. However, the sector must also contain the risks associated with them and ensuring protection against abuse. Greater transparency and security could increase consumer confidence and help the sector to make an earlier breakthrough.

### 3. No expansion of state investment controls

Switzerland is one of the OECD's most important investment locations: foreign direct investment totalled 147% of Swiss GDP in 2019,<sup>75</sup> and direct investment abroad by Swiss investors was even higher, at 167% of GDP. Cross-border direct investment is extremely important to Switzerland: it promotes productivity and keeps the country competitive. In recent years, though, there have been growing calls for greater investment controls and the Swiss government has been obliged to consider introducing controls in particular in response to China's growing economic power.<sup>76</sup>

Greater state controls on investment would jeopardise Switzerland's attractiveness as a place to do business, hamper direct investment as well as represent a considerable intervention in property and ownership rights. Switzerland already has safeguards in place to protect key sectors, such as infrastructure and energy, where there is a clear public interest, so it is sensible to protect these sectors against foreign takeovers. Compared with other countries, Switzerland can hardly be accused of a laissez-faire approach regarding investment controls. Indeed, the OECD FDI Restrictiveness Index shows that the country actually regulates foreign direct investment more strictly than the OECD average. However, today's data-driven economy poses new challenges. If telecommunications infrastructure is not adequately protected, for example, then data protection and data security are vulnerable in such areas as 5G. Switzerland must consider how it will manage foreign 5G supply chains and improve its cyber security.



#### 4. Formulate clear standards for sustainable finance

Businesses are placing increasing emphasis on sustainability, including those in the financial sector, as investors become more and more concerned about sustainable practices. Growing numbers now want to see investments reflecting sustainability criteria, rather than solely economic criteria, including reducing harm to the environment and promoting social participation. Some international organisations are attempting to set standards and targets in this area, with the EU taking the lead, but such regulations are taking longer than planned. Switzerland should consider becoming involved in such projects or formulate its own initiatives, with the state focusing not on regulation and subsidies, but rather on changing the framework within which the sector operates. Given the delay of the EU regulations, there is an opportunity for Switzerland to be first to introduce clear guidelines and regulation. It would be helpful for the government to adopt sustainability standards and define clearly what sustainability means. Consistent standards could create the necessary momentum to promote sustainable investment and establish clear guidance for businesses, making Switzerland a pioneer of sustainable investment.



#### Recommendations for businesses

- |   |   |
|---|---|
| 1 | Improve digital banking maturity            |
| 2 | Make better use of the cloud                |
| 3 | Expand digital payment systems              |
| 4 | Optimise liquidity and financing management |

#### 1. Improve digital banking maturity

The COVID-19 crisis gave many Swiss banks that had not already ventured into online banking a strong incentive to do so. More and more customers now want to bank online and, according to a Deloitte study, Swiss banks are well placed to offer such services. The study assesses the digital banking maturity of 238 banks across 38 European countries, analysing a wide-ranging list of online functions spanning the entire customer experience. Switzerland ranks second of the 38 countries surveyed, making it a market whose banks provide extensive online functions. In particular, Swiss banks have the offer a wide range of functions. However, they do less well in terms of the user experience, where there is plenty of room for improvement.

The same applies to open banking, an area where Swiss banks already demonstrate considerable digital maturity. Open banking offers substantial potential and is likely to transform the banking sector, so it is particularly important that Swiss banks improve their capabilities in this area. The COVID-19 pandemic has substantially boosted consumer demand for online solutions in retail and private banking, therefore it is vital that banks use this opportunity to develop their online services to enhance the customer experience. Even more important, they need to devise a convincing multichannel strategy that includes hybrid solutions, especially for banking transactions such as mortgages, credit cards and consumer credit. Such a strategy is essential to underpin banks' efforts to win over all their customer groups.

## 2. Make better use of the cloud

Use of cloud technology is likely to be crucial for Swiss banks in future. Cloud-based services create new scope for innovative business models, and shifting banking infrastructure from bricks-and-mortar systems to a cloud environment is likely to provide a substantial boost to the competitiveness of the entire Swiss financial sector. Until now, though, Swiss banks have been slow to embrace cloud-based systems, primarily because of concerns about regulatory compliance and data security.

In 2019, the Swiss Bankers Association published guidance and recommendations to support the banks in expanding their provision of cloud-based services. Swiss banks now need to seize the opportunities the cloud offers and take a structured approach to minimising risk as they introduce more cloud-based services. They must have a clear strategy for using cloud-based services that supports their business objectives, defines risk management and organisational challenges, and includes a business case that justifies the financial investment required. In addition, cloud providers and its ecosystem also need to adapt their offering to comply with financial services regulation and reassure banks and insurance companies planning to adopt the technology.

## 3. Expand digital payment systems

The importance of cash has declined steadily over recent years whilst the use of digital payment systems, such as debit and credit cards and smartphone apps, has expanded. The COVID-19 pandemic has accelerated this trend, with many companies outside the finance sector — including retail businesses — switching to digital payment systems. Some have made significant changes very rapidly. In the long term, companies will need to embrace digital payments and consider new, future-proof systems, including facial recognition, which enables customers to make payments without having a wallet, purse or smartphone with them. Companies need to trial such systems at an early stage and identify and tackle the data protection issues that arise. Equally important, Swiss businesses should not rely on international providers but innovate to come up with their own, future-proof systems. Hybrid solutions and broad-based services will be needed to satisfy the wide range of customer preferences. For example, around one-third of customers experimenting with online payment systems for the first time during the pandemic report that they will be returning to non-digital systems once the crisis is over.<sup>77</sup> Hybrid solutions would offer scope for savings in the

banks' volume business. The banks could use the savings to improve customer services in more complex transactions. However, both online and in-person features will need mesh seamlessly.

## 4. Optimise liquidity and financing management

The COVID-19 crisis has seen the business volumes and revenues of many companies plummet and those with previously limited finances have been plunged into a liquidity crisis. The Swiss government worked with the country's banks to launch a programme of business loans, enabling many companies to access emergency help relatively rapidly and without much bureaucracy. What is important now, though, is for these companies to prioritise their working capital management and take a proactive approach to ensure a smooth recovery. Companies need to consider developing not only a sound financing structure, but a detailed short- to mid-term liquidity plan.

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