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Become Obsolete
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SIX operates the infrastructure for the Swiss financial center, thus ensuring access to the capital market and the flow of information and money. As the Operator of the Swiss Stock Exchange and the Spanish stock exchanges we combine listing, trading, settlement, and custody of securities in one place. And with the SIX Digital Exchange (SDX) we are defining the Securities Value Chain of the future. As a competence center for Swiss payment transactions, SIX supports banks with innovative services in an increasingly digitalized world. Moreover, we provide the entire world with reference, pricing, and corporate action data, regulatory services, and indices.



WORLD ECONOMY IN TRANSITION

SIX Chairman Thomas Wellauer sees the planning certainty of businesses at risk.



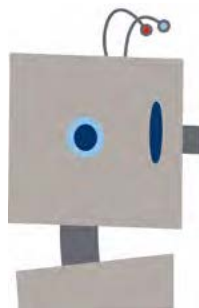
CASH AFTER CORONA

Paper money and coins won't go out of focus so quickly, but the cash ecosystem must become more efficient.

MAN AND MACHINE

Where will we soon encounter only robots?

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Sweat Equity of a Different Kind

Text: Simon Brunner

Lara Dickenmann has sprinted several times to the Champions League final – and won it twice.



Soccer player Lara Dickenmann and hockey goaltender Jonas Hiller are international stars in their respective sports. The Swiss athletes both talk with rare openness about money in sports – about investments in launching careers, making ends meet after retirement, and the different-sized incomes in between.

“USD 18 million over four years,” reads the terms of Jonas Hiller’s most lucrative NHL contract. The goaltender from Eastern Switzerland broke into the premier North American professional hockey league – the world’s best – in 2007. In 2011, when Hiller was selected to the NHL All-Star Game, the only Swiss athlete who earned more than him was Roger Federer.

Soccer’s Lara Dickenmann can more than keep up with Hiller, now 38 years old, when it comes to athletic success. The woman from Central Switzerland has won the Champions League twice, has hoisted the trophy in a national club championship a record 15 times, was voted Switzerland’s best female soccer player a record eight times, and played in a Swiss national team match a record-breaking 135 times, scoring 53 goals. And her earnings? “Around CHF 130,000 in my best year,” the 34-year-old says.

In the Beginning There’s an Investment

Dickenmann and Hiller belong to a small, elite group of Swiss athletes who have achieved international sports stardom. They have something else remarkable in common: They both talk openly about a taboo topic in Switzerland – money.

It didn’t cost much to get Jonas Hiller started on his career. The expensive goalie equipment belonged to the hockey club. He only had to bring skates, a

“If I had chosen a different path than playing soccer, I probably would have earned a lot more money.”

Lara Dickenmann

mask, and a stick with him. “Swiss clubs nurture youth players,” he explains, “because later on they can get a cut of any transfer fees.” It’s different in North America, he says, because there are no incentives to sponsor youth players. There, a “hockey kid” can thus quickly cost USD 15,000 per year or more. “Equipment, renting the rink, travel expenses – the parents pay for everything.”

Hiller transferred to the Davos Sports High School at the age of 16 and began to seriously strain his family’s budget – the boarding school costs around CHF 30,000 per year. Moreover, Hiller’s hockey career was in the doldrums. Although he had broken into Switzerland’s professional ranks as a player on HC Davos of the Swiss National League, he sat on the bench for three years. “My parents were somewhat relieved that I left high school with a diploma in hand and a yearly salary of CHF 15,000,” Hiller recounts, “but I had to become a first-string player to be able to make a living from sports.”

The Swiss Finance Museum, in its current *Sports & Money* special exhibition, shows the yearly expenses facing beginners in a variety of different sports. The

1.7%

Sports account for 1.7% of Switzerland's annual gross domestic product. The new *Sports & Money* special exhibition at the Swiss Finance Museum shows the financial side of Formula 1, tennis, equestrian riding, soccer, and skiing.

The lone finance museum in the banking country of Switzerland is located on the premises of the SIX headquarters building. Two employees of SIX – Swiss Finance Museum Director Andrea Weidemann and her team-mate Simone Kobel – curated the special exhibition.

📍 finanzmuseum.ch

spectrum is wide, ranging from CHF 24,000 for equestrian riding to an inexpensive CHF 340 for soccer. Lara Dickenmann confirms that it doesn't cost much to play soccer. "Plus, my parents believed that I would quickly lose interest like I did before with swimming lessons and ballet." They bought their daughter cheap soccer cleats, and she "inherited" the rest of her gear from her father, a former player for FC Zurich. Her membership dues for the SC Kriens soccer club were moderate.

The Athletic Success Is Coming

Although only a handful of women could earn a living from soccer at that time, in 2000 Dickenmann declared in a video that "I want to become a pro player." She was just 15 years old, but a fast starter: She won three Swiss championships with FC Sursee – her second club, played on Switzerland's national team, and scored a goal against France in her very first international match.

After earning her high school diploma, she received a sports scholarship to attend college in the USA, where she studied international business administration in Ohio. But she spent most of her time there chasing a ball. "I had soccer on the brain," the playmaker says. "I didn't think for a second about working a normal job, but I wanted to complete my education." Which she did, earning a bachelor's degree.

After Jonas Hiller had spent a season on loan to the Lausanne Hockey Club, he returned to HC Davos as the team's starting goalie and immediately won the Swiss national championship. He was now also a member of Switzerland's national hockey team, he won another Swiss championship with HC Davos, and then made it over to the USA, joining the Anaheim Ducks based near Los Angeles.

His first NHL contract guaranteed the then 25-year-old an annual salary of

around USD 650,000. "The crazy thing," Hiller recounts, "is that my salary was paid by check." Teams in North America pay salaries in installments spread over the 180-day hockey season. "I had to cash a check for USD 50,000 every two weeks."

An asset management firm looks after his earnings to this day following a rather conservative investment strategy with well-diversified assets that was mapped out together with Hiller. "I wanted to make sure that my money didn't suddenly disappear after my career as a result of taking on too much risk," Hiller says.

Lara Dickenmann landed on the roster of the up-and-coming Olympique Lyonnais soccer team in 2009 almost "by accident." The head coach of Olympique Lyonnais had once trained an opposing team that had faced Dickenmann's squad and remembered her. She was invited to a try-out and was immediately given a contract. In her first season there, Lyon reached the semifinals of the European Champions League. In her second season, Lyon made it to the final, and in her third sea-

**"I had to cash a
check for USD
50,000 every
two weeks."**

Jonas Hiller

Jonas Hiller made it to the All-Star-Game of the National Hockey League, North America's premier professional league.



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son, the team won the world's most prestigious soccer club competition. Lyon today is the Champions League record titleholder.

During her time in Lyon, the woman dubbed the "Swiss soccer icon" by Germany's newspaper *TAZ* earned EUR 3,000 per month and frequently had to fight for her money. When she signed with Olympique Lyonnais, the club assured Dickenmann that the contract paid her a net salary, but it later turned out the then 22-year-old had to pay the taxes out of her own pocket. In the exhibition at the Swiss Finance Museum, one can read that the French league today pays the highest average season salary (EUR 42,188) in European women's soccer, followed by the German Bundesliga (EUR 37,060). In comparison, the average annual salary for male players at FC Barcelona stood at EUR 12.3 million in 2019.

1 Man or 833 Women

"I'm a terrible negotiator," Dickenmann says. "Especially at the start of my career, I was afraid that a club would withdraw its offer, so I always signed right away." Today an agent does the negotiating for her. Other considerations such as the make-up of the team, the head coach, and the

club's longer-term goals are now more important to her than her salary. Dickenmann is realistic: "If I had chosen a different path than playing soccer," she says, "I probably would have earned a lot more money."

Dickenmann's contract in Lyon expired in 2015, and she now was free to pick a new club. For male players, that would be a dream scenario: A player of her stature could negotiate a handsome payday. But that doesn't go for women, for whom transfer fees are still the exception. A transfer in men's soccer in 2019 brought in an average of USD 475,328. The Swiss Finance Museum has calculated that the above amount would have been enough to pay for a total of 833 transfers in women's soccer (USD 652,032).

At her new club, VfL Wolfsburg in Germany's Bundesliga, Dickenmann actually earns even less than before, but she says she really wanted to try something new one more time. Despite pocketing a meager salary compared to what male players get, she manages to save some money each month. Her father looks after her financial matters. After an injury cut his soccer career short, he embarked on a career in asset management. "We have talked extensively about how I would



Last stop of a successful career: in Biel, Jonas Hiller caught his last pucks.

like to invest my money,” Dickenmann says, “and now he is implementing the strategy for me.”

After seven years in California, Jonas Hiller moved to the Calgary Flames in Canada for two years. Afterward, the veteran of 437 NHL matches returned to Switzerland to play for the EHC Biel-Bienne hockey club. Hiller’s exit from active playing was arguably the least glamorous moment of his career: Shortly before the playoffs, ice hockey was suspended in Switzerland due to COVID-19.

Passing on Experience

Will he now be spending his days on a lounge chair? No. Hiller holds financial interests in a number of different companies and has taken over as the president of the Swiss Ice Hockey Players’ Union. He now wants to represent his hockey colleagues in a bid to standardize player contracts, to help players ease into post-career employment, to impress upon young talents how important it is to prepare for retirement from hockey, and to perhaps even establish a salary floor.

Lara Dickenmann retired from the Swiss national team in 2019, but her contract with Wolfsburg runs until 2021. This year she won the double crown of German soccer with Wolfsburg and reached the Champions League final. While she continues to play, she is finishing a master’s degree in management with a focus on sports.

When she hangs up her cleats one day, she wants to get involved in the business side of Swiss women’s soccer, which celebrates its 50th anniversary in 2020. She’s not sure yet exactly what role she wants to play, but “mainly I want to advance the growth of Swiss women’s soccer.” Ever since Dickenmann first laced up for SC Kriens – playing on a boys’ team, mind you – the situation for women has improved a lot, she says, but “women’s soccer has to work as a business case. It has to become possible to earn money in women’s soccer not just for players and coaches, but also for clubs.” ✕

Investing in Sports

#1 — A Piece of a Soccer Club

Shares of clubs like Juventus Turin, Borussia Dortmund and Ajax Amsterdam trade on the stock market. The STOXX Europe Football Index encompasses all soccer clubs listed on European stock exchanges.

#2 — A Horse in the Stable

Whoever chips in on the expenses of raising a racehorse gets to share in the prize money and sale proceeds. Highclere Thoroughbred Racing Ltd., for example, connects investors with stables in England.

#3 — ETFs on e-Sports

Computer-game prize tournaments – you can invest in e-sports too. The VanEck Vectors Video Gaming and eSports ETF tracks the industry’s value growth.

#4 — The Fan Blockchain

Teamsports.io wants to bring distributed ledger technology to soccer. The aim is to let fans not only be shareholders in a soccer club, but also to allow them to co-manage the team.

#5 — Premium Returns with Elite Sports?

A sum of EUR 1 million or more buys you access to the Donner & Reuschel international sports investment fund, which invests in assets including media rights and real estate in the top-tier soccer sector.

#6 — For the Fan Base

There are a variety of structured products based on underlying assets from the world of sports. Zürcher Kantonalbank, for example, offers a tracker certificate for soccer fans, and UniCredit carries a structured certificate for sports equipment.



The COVID-19 crisis has given digitalization an energetic boost and has shifted a lot of interaction to the Internet. It's not always clear, though, whether we're interacting with humans or machines there.

Will Robots Soon Be the Better Service Providers?



Frank Iller has been with SIX for 11 years, and has spent the last four in the Financial Information business unit. The Head Customer Support uses the latest technologies to put his vision of change into action.

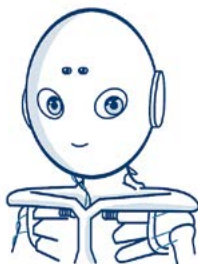
The Changemaker

"Robots have the potential to make our customer support operations even faster, to optimize our employees' accessibility, and to thus enhance quality of service. In our financial information business, we are currently focusing our automation efforts on e-mail correspondence, which accounts for the lion's share of the queries we receive. As a first step, a bot will automatically route incoming e-mails to the right places. There, it will be able to make wording suggestions to support staff or autonomously insert information in the reply e-mail. The bot uses natural language processing algorithms, which enable it to understand and interpret human language. Over time, the bot will additively learn to converse with humans and will be able, for example, to get an issuer to confirm a price or to provide identification numbers of securities without any human assistance."

The Robot

"Not only can I understand you humans when you communicate with me, but I can also converse with you. However, in order to really be able to help you in many situations, I need more than just a computer chip, or brain, but also a body – a humanoid body. In the body's articulations, where most of my robot pals have motors, I have artificial muscles and tendons that flex and stretch. The elasticity I gain makes my movements a little awkward in comparison, but in exchange I am capable of responding to your needs flexibly and with the full use of my entire body, particularly in tricky situations. In the ANA Avatar XPrize competition, I will prove that my capabilities will one day enable me to act as a worthy surrogate for you even in the most remote locations."

🌐 xprize.org



Roboy came into being in the University of Zurich's Artificial Intelligence Lab. A number of engineers and different student teams have continually been refining Roboy since 2013. SIX is supporting the current team as a partner sponsor.

🌐 roboy.org



Marisa Tschopp researches artificial intelligence from a humanities perspective, focusing on psychological and ethical aspects. She is also the ambassador for the Women in AI initiative in Switzerland.
🌐 scip.ch

The Scientist

"Comparisons between humans and machines are omnipresent, but not constructive. The unnecessary anthropomorphization stokes fears while often losing sight of the context. The fact that a computer is better than humans at calculating is trivial. But let's take a topic like autonomous driving. What works perfectly under laboratory conditions quickly becomes complex when, for example, other road users come into play. Automation is problematic wherever it poses a danger to people. To me, this also includes personal data, the protection of which is endangered by improper management, inexistent policies, and opaque algorithms. It's important to me that people retain their freedom of action, which includes ensuring that digitalized processes are transparent and that personal contact remains an option – I'm thinking here, for instance, of customer advisory or recruiting processes."

“Well-Managed Foreign and Trade Policies Are Crucial”

Interview: Sibylla Rotzler

Dr. Thomas Wellauer

The Chairman of the Board of Directors of SIX was previously the COO and a member of the group executive committee of Swiss Re until June 2019. After beginning his career at McKinsey & Company, in 1997 he became the CEO of Winterthur Insurance, which was taken over by Credit Suisse that same year. At Credit Suisse, he was a member of the group executive board and ended his time there as the head of the Credit Suisse Financial Services division. Prior to joining Swiss Re, Wellauer held positions as the head of the performance improvement program at Clariant (2003–2006) and as the head of corporate affairs as well as a member of the executive committee at Novartis (2006–2010). Wellauer holds a PhD in chemical engineering from the Swiss Federal Institute of Technology in Zurich and a degree in business and economics from the University of Zurich.



The global economy is currently undergoing major changes. The unipolar world order is on the verge of transitioning into a multipolar order, says Thomas Wellauer, Chairman of the Board of Directors of SIX since March 2020.

Mr. Wellauer, how hard is it today for companies to do business profitably?

Companies need the greatest possible planning certainty to minimize risks and do business profitably. A key factor here is political and legal certainty, which, however, has recently regressed in many places. The risk of state interference in areas that heretofore have been left up to market forces has increased considerably. Moreover, the economic situation facing many companies has worsened dramatically as a result of the COVID-19 crisis.

Can you cite us examples of the loss of certainty you just mentioned?

A transition from a unipolar to a multipolar world order is observable at the moment. China is challenging the reigning hegemon, the USA, and is trying to become the leading political, military, and economic power far beyond the borders of Asia. At the same time, Russia wants to return to its former greatness and prominence in the world and is not afraid of using military means to achieve that ambition.

The USA – with Europe in its tow – accordingly sees its leading position and its prosperity in peril, but is no longer accustomed to being challenged. All of this is causing uncertainties and upheavals, which are also weighing on Switzerland's economy.

What does this mean for Switzerland?

The competition between national economies is increasingly intensifying. All

players are seeking to secure a dominant position. Various markets accordingly are tending to seal themselves off from outside competition. In this area of conflict, well-managed foreign and trade policies in favor of open markets are crucial to our country's economic power. We vividly saw this in the debate about stock-exchange equivalence.

Speaking of stock exchanges, SIX just recently took over BME, the Spanish securities exchange and financial market infrastructure group. Why did SIX make that acquisition?

The securities exchange and financial market infrastructure industry has been in a state of consolidation for 20 years. On one hand, there are players that concentrate on the traditional trading business. They are striving for a centralized model and are focused on reaping cost synergies by merging different platforms.

On the other hand, there are players that are strategically seeking to expand and diversify along the value chain and across asset classes. SIX has taken a further step in this direction by acquiring BME, which brings economies of scale to all parts of our securities operations. The



"SIX gives the Swiss financial center a genuine competitive advantage."

takeover makes SIX the number three player today in the European securities exchange and financial market infrastructure sector.

What priorities are you setting as the new chairman of SIX?

SIX makes a substantial contribution to maintaining an efficient and transparent financial center, thus laying the foundation for a thriving economy. The stock exchange functions as a kind of transmission belt between the real economy and the financial economy. Our diversified business model geared to providing trading, post-trading, data, and bank services all from under one roof has proven very resilient, even in tough times like the COVID-19 crisis.

I believe that SIX gives the Swiss financial center a genuine competitive advantage. We want to stress that more clearly by continuing to enhance our clients' competitiveness in the future. In times of transition, it is especially important to safeguard market efficiency and stability, to invest early on in new technologies, and to continually adapt business models – and, of course, to strive for profitable growth. ✕



Thomas Wellauer, Chairman of SIX, observes a transition from a unipolar to a multipolar world order.

Wednesday, 22 April 2020 11:02 | Written by Samuel Gerber

Swiss Banks Hoarding Liquidity

finews.ch, 22 April 2020

The transformation of the financial industry is making headlines. Our employees explain how SIX is contributing.



Nerin Demir
Head Securities Finance,
Securities & Exchanges, SIX

The provision of liquidity to businesses by banks was crucial to keeping Switzerland's economy running properly during the COVID-19 crisis. "At the same time, they [banks] have to make sure to safeguard their own liquidity," *finews.ch* reports. This is putting pressure on the unsecured money market, the financial news portal writes. Banks that borrow money there from their competitors without depositing collateral have to live with volatile interest rates and equity capital costs.

The secured money market, accordingly, is enjoying great popularity these days. It helps financial institutions to, among other things, comply with the Basel III liquidity coverage ratio requirement at all times. The secured money market is the liquidity lifeline of last resort, particularly in times of crisis.

We at SIX operate the trading platform for the secured money market in Switzerland, which is known as the Swiss repo market. Around 170 banks and insurance companies, including the Swiss National Bank (SNB), are active in the Swiss repo market. The market participants borrow money from each other and at the same time deposit securities as collateral. They pledge to retract the collateral at a later date, and they pay interest on the amount

of money borrowed. The SNB uses repo operations to supply the money market with liquidity.

SIX performs another important core function in its role as a triparty agent. After a repo deal is concluded, we guarantee the applicable standards, monitor open transactions, value securities, and execute the collateralization fully automatically, thus building trust and averting disputes.

A New Form of Triparty Agent

Our new, comprehensive Triparty Agent system went into operation on 15 June 2020. Its innovative interface – the Collateral Cockpit – simplifies the management of collateral and makes it visualizable and very easily plannable also for traders. With just a few mouse clicks, repo market participants can employ their securities efficiently and tap new business opportunities. The digitalization of the processes involved relieves them almost entirely from having to intervene manually and thus also reduces operational risk.

Be it during or after the COVID-19 crisis, SIX, with its new Triparty Agent, is making the Swiss repo market more efficient and resilient than ever.



Jürg Stalder
Senior Product Manager,
Financial Information, SIX



Webinar: six-group.com/six-tax-score-red

Now Also Gauge the Tax Consequences

Our newly developed SIX Tax Score tool gives bank front offices support for the first time in estimating financial products' tax consequences, thus enhancing their ability to meet their clients' needs for better and more transparent investment decisions. In our webinar, I explain how tax law information, applicable tax rates, and our historical corporate actions data – on dividend payouts, for example – are incorporated into the benchmark. The higher this mathematical score, the lower the expected return.



White Paper: six-group.com/future-billing-red

Beyond Bill Paying

In collaboration with the Lucerne University of Applied Sciences and Arts, we analyzed and rated four billing methods: direct debiting, eBill, QR bills, and e-mailed bills. In the overall rating, eBill took first place from the perspective of both billers and bill recipients. You can read the detailed results of the assessment in our white paper titled *The Future of Billing*. As we look forward into the future, we see digitalization, automation, and the desire for transparency personalizing the billing process to a greater extent than ever before. Driven by data, the billing platforms will become versatile helpers, and their integration into the Internet of Things will spare users from having to perform routine tasks.



Daniel Berger
Head Billing & Payments Ecosystem,
Banking Services, SIX



Webcast: six-group.com/tax-services-experts-red

Easy Filing of Tax Refund Claims



Christophe Lapaire
Head Advanced Tax Services,
Securities & Exchanges, SIX

Knowing the tax implications of an investment is one thing [see also article on SIX Tax Score above], and the other is avoiding potential double taxation. The correct filing of complex tax refund claims can substantially enhance the performance of a portfolio. SIX offers an array of innovative tax-related services. The Advanced Tax Reclaim Service from SIX, for example, allows banks to submit all relevant tax refund information via a smart online tool. We and Global Custodian invited leading experts to participate in a webcast on the value and challenges of such seamlessly integrated tax services.



What kind of view does an inner-city apartment offer, and how bright is it? Archilyse answers questions like these at a click of a button. Our software analyzes floor plans and appraises architecture and real estate quality quickly and easily. We convert floor plan data into georeferenced 3D models, set those models in the digitized surrounding environment, and extract a variety of quality attributes, all at little expense thanks to artificial intelligence and machine learning. We are the only company out there that makes architecture and real estate quality digitally and objectively measurable, comparable, and understandable for everybody.

Dr. Matthias Standfest
Founder and CEO of Archilyse

Archilyse

Headquarters: Zurich

Founded in: 2017

Employee headcount: 15

SIX Invests in Startups

SIX FinTech Ventures, a corporate venture capital fund endowed with CHF 50 million, has been investing since 2018 in national and international startup companies that are designing more efficient processes or tapping into new customer groups. The Archilyse example shows that SIX FinTech Ventures also supports startups that stimulate the financial industry from an adjacent sector.

🌐 six-group.com/fintech-ventures-red

Mille Francs
Mille Franchi

Cash: Not Curtains Yet

Text: Simon Brunner

The new series of Swiss franc bank notes, of which all bill denominations have been in circulation since last year, is unlikely to be the last one unveiled.

Les billets de banque
sont protégés
par le droit pénal.
Le banconote sono
protette dal
diritto penale.

Is the COVID-19 crisis demoting the importance of cash? Or is cash gaining relevance? Or is the answer to both questions “yes”?

Headlines last spring heralded the demise of paper money and coins. “COVID kills cash,” proclaimed more than one newspaper and magazine. Fear of contracting the virus from banknotes, the line of reasoning went, would prompt many people to switch to digital alternatives. Are the days of paper money and coins truly numbered? The clear-cut answer is: yes and no.

Automated teller machines (ATMs) in Switzerland are a good starting point for gauging usage of paper money during the pandemic. In July and August, the number of ATM withdrawals was only 10% to 15% below the level registered during the months before the lockdown (see chart above). This equates to a seasonally adjusted 80% of the prior year’s monthly levels.

Demand for paper money thus plunged only briefly. How is that possible? In the age of COVID-19, bank teller windows are not a preferred channel for cash transactions. Many people have switched to ATMs. Alexander Verbeck, Head Cash Ecosystem at SIX, cites an even more important reason: “In uncertain times and when bank accounts are yielding little to no interest, physical cash is increasingly being turned to as a store of value.”

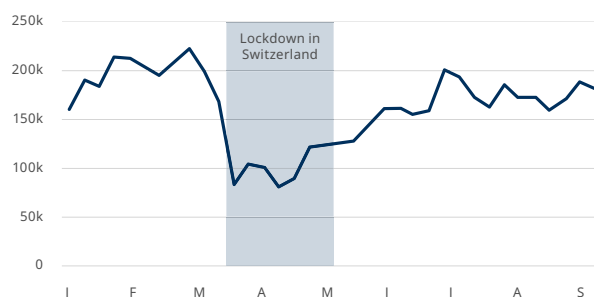
Consistent with this observation, the amount of money per withdrawal increased during the lockdown. “When people visited ATMs during the first stage of restrictions,” Verbeck explains, “they withdrew up to five times more cash than they did per ATM withdrawal at the start of 2020.” And high-denomination banknotes “almost

always get stuffed under the proverbial mattress,” he says. Studies verify a hoarding ratio of 80% for the thousand-franc bill, the world’s most valuable banknote. “People use it almost like gold,” Verbeck adds.

He himself carries just 20 francs and 10 euros in his wallet, and those banknotes “have surely been there for half a year now.” The Head Cash Ecosystem at SIX uses cashless payment solutions whenever possible. He is confident, though, that cash will stick around – forever. “We like to pay tips personally, that’s deeply embedded in our culture. And, more importantly, debt counselors advise people who have trouble handling money to refrain from using plastic money as much as possible and to only withdraw as much cash as they need at the moment. We can’t declare a cashless society at the expense of those people.”

Hard to Part With

US psychologists proved in 1998 that an actual “pain of paying” occurs in the act of making purchases with physical cash, which activates the same regions of the brain associated with processing affective pain or revulsion. Later studies showed



Number of withdrawals per week in 2020, based on 4,200 ATMs in Switzerland

White Paper

Future of Money

Is physical cash evolving from a medium of exchange to a store of value? What role will commercial banks and central banks play? Will digital currencies prevail? The *Future of Money* white paper from the “Picture of the Future” series published by SIX depicts scenarios concerning our money:

🌐 [six-group.com/
future-money-red](https://six-group.com/future-money-red)

that this effect is absent or much less pronounced in the act of paying with a credit card or a smartphone. There are thus two sides to the coin in the truest sense of the expression.

However, it is undisputed that the pandemic has accelerated the rollout of cashless payment technologies. Verbeck expects that the volume of physical cash payments in Switzerland will decrease to around only 30% to 50% of today's level by 2025 and refers to the white paper from SIX titled *Future of Money* (see top right). He says that's slightly above the current level in Sweden, the world's trailblazer toward a cashless society, where even beggars use digital devices to take handouts.

The trend corroborates Verbeck's view. In the early 1990s, consumers in Switzerland were still making 90% of their store purchases in cash. After the lockdown, Migros, the largest retailer in Switzerland, reported that for the first time ever, over half of all shopping purchases were paid for digitally.

Cash Is Expensive

One could argue for a long time about pros and cons of physical money, but one disadvantage is beyond dispute: It's expensive – very expensive. Procuring and maintaining ATMs, transporting money to and from retailers, central money collection points, vaults in bank branches, and sophisticated physical and electronic security concepts all cost a lot of money. It is estimated that it costs well over CHF 2 billion per year to manage the physical cash system in Switzerland. Verbeck agrees that “the cash ecosystem urgently needs to become more efficient, starting with ATMs, around half of which can't be operated profitably.”

Here's where ATMfutura comes in: The collaborative project that banks commissioned SIX to carry out has standard-

ized equipment and software, pooled procurement, and centralized operational functions. The uniform cost conditions for all banks especially enable small banks to save a lot of money. “Since the completion of the project at the end of September 2020, all ATMs whose processes are handled by SIX have been migrated,” Verbeck says. “That's a good 85% of all ATMs in Switzerland.”

The vaults and the sophisticated physical and electronic security concepts mentioned above make manned teller windows a cost driver for banks. They are increasingly eschewing teller windows and are instead setting up cashless branches configured as cafés and focused on advisory services.

If a client does happen to want to withdraw money, coming full circle, the customer is directed to the ATM, where he or she then uses a QR code, printed or on a smartphone, to get cash without a PIN or a bank card. There is another extra benefit. As Verbeck asks: “Who robs a bank that only serves coffee?” ×



Use Debit Cards Online

Physical cash is hardly likely to disappear completely in the years ahead (see article on the left), but its function as a medium of exchange will increasingly be supplanted by digital money and digital assets. Debit cards, with a daily payment transaction volume of CHF 207 million, have already become the most popular means of payment in Switzerland and Liechtenstein today.

The existing Maestro and V Pay cards are now being joined by Debit Mastercard and Visa Debit cards with enhanced functionalities. Cardholders can now also use them to make payments on the Internet and to reserve hotel rooms and rental cars. The new debit cards can be used worldwide wherever Mastercard and Visa are accepted. In addition, the 3D Secure 2 authentication standard ensures a high level of security for online transactions.

The new debit cards mark a further step in the direction toward virtual cards that enable payments, for example, via smartphones – the card is stored in the virtual wallet. The foundation for this is tokenization, a procedure in the payment process that exclusively utilizes encrypted data or substitute numbers called tokens. Senior Product Manager Deniz Maden in the Banking Services business unit of SIX puts it in a nutshell: “The planned digital debit services will turn Swiss debit cards into a means of payment that cardholders can manage digitally on their smartphones and that can be used in all e-commerce and mobile commerce channels.”

RED
021

The thousand-franc bill is the world's most valuable banknote and a beloved store of value.



The Swiss Stock Exchange and BME in Spain together form the third-largest securities exchange group in Europe based on the total number of free-float shares.



Madrid Stock Exchange, Spain

The Madrid Stock Exchange resides in a veritable palace – a neoclassical palace, to be precise. Queen Regent María Cristina de Habsburgo-Lorena officially opened the 66-meter-wide building near the Paseo del Prado boulevard in 1893. The building's show-piece is its iron- and glass-domed trading hall. The electronic age rendered the traders invisible, but the stock exchange clock hanging in the middle of the hall still tells the correct trading time on three dials. On its fourth face, a broken barometer permanently heralds changing weather conditions. Could that be a warning to investors?

SIX finalized its acquisition of BME, the operator of the Spanish stock exchanges, in June 2020. BME and the exquisite trading hall in Madrid thus are a part of SIX now.



Our employees at SIX prove their toughness in the saddle – and in their specialty subject areas.

Deborah Schaer is a startup coach at the F10 FinTech Incubator & Accelerator in Zurich. There, she has developed a new acceleration program that allows companies like SIX to work more effectively with advanced startups, so-called scaleups.

Rodeo Time
Deborah Schaer:

Startup? Scaleup? Help me out here ...

The F10 FinTech Incubator & Accelerator advises startups in their ventures to found companies and facilitates their collaboration with different market participants. The startups benefit from the experience of F10 corporate members like SIX and from a network of mentors and investors. The new three-month acceleration program is aimed at scaleups in financial technology. These are startups that are in an advanced stage of development and already have customers.

What motivated you to develop the acceleration program?

Our corporate members' desire to intensify their collaboration with startups. But the acceleration program also gives me the opportunity to work together with more mature startups, and space to try out something new.

62s



"I ditched my wallet over a year ago."

How did you end up in the FinTech sector? Was it a deliberate choice or a random coincidence?

After completing my master's degree in business administration and starting my career as the co-founder of a fashion apparel startup, I helped to build up several IT companies. I most recently was involved in a startup company in the Internet of Things arena. I initially joined F10 as a voluntary mentor. When the team asked me if I would like to become a full-time employee, I didn't hesitate long in saying "yes."

What does the term "FinTech" mean to you?

FinTech means more than just digitalizing all financial services to make them cheaper and more accessible for customers. It also means that traditional financial services providers are automating their processes and offering new business models with assistance from startups.

Which startups are on your personal radar right now?

Startups focused on open banking. Alongside the acceleration program with a focus on banking and insurance, I also supervise the F10 sandbox, a portal on which we provide application programming interfaces, or APIs, from our corporate members for testing. The portal also features, for example, APIs from b.Link, the open banking platform from SIX. I'm also interested in startups that offer solutions for digital assets, which in the future will enable us to own and trade shares in companies, works of art, or even wine.

How digital is your daily routine?

I ditched my wallet over a year ago and now use Twint or Apple Pay to make all of my payments. With the Sonect app developed by F10 alumni I withdraw cash at a kiosk or in other stores and send money back and forth. My train tickets are stored in the Swiss Federal Railways app, which I log onto with SwissID. A house key and a passport in digital format are the only things missing. But I still cherish analog personal conversations and dialogue with friends, acquaintances, relatives, and startups. And I always keep a hundred-franc note stashed in my smartphone sleeve just in case.

What happens after the first season of the acceleration program?

After the first season of the acceleration program is over, the 12 startups involved will stay in our F10 community. Many of our alumni regularly appear as guests and speakers at our events, and some of them even assist in mentoring other startups or help to find partnerships with other FinTechs in the F10 community. ✕

Scaleup

A startup company that has left the infancy stage must generate revenue as a scaleup company to prove its viability on the market. More than 80 startups from all around Europe and even Singapore, for instance, applied to participate in the first season of the acceleration program in the F10 FinTech Incubator & Accelerator. Twelve startups made it into the program. SIX is the founder and a corporate member and main sponsor of F10.

🌐 f10.global

“SARON, computed independently by SIX, exhibits less volatility than LIBOR, which is set by people.”

Philipp Ackermann, Group Treasurer, Raiffeisen Switzerland
Raiffeisen was the first bank to use SARON to compute mortgage interest rates throughout Switzerland.

10 November 2020: SIX describes the threat scenario facing the Swiss financial center in its 2020 Cyber Security Report. ETH Zurich Professor and Walt Disney Company Vice President of Research Markus Gross will be a guest speaker.



Register today:
six-group.com/cybersecurityevent-red



Danielle Reischuk ranks among the most influential people in the ETF industry.

ETF Stream named the senior sales manager in the Securities & Exchanges business unit at SIX one of the 30 most influential people in European ETFs. With around 1,600 listed ETFs, the Swiss Stock Exchange ranks among the top three ETF trading venues in Europe.

+10 min



As of 22 June, Trading-at-Last allows participants on the Swiss Stock Exchange to execute their orders after the close of the market at the closing auction price in a regulated manner and with no extra fees. The closing auction has increased in importance. Around a quarter of all stock-trading transactions in 2019 took place during the closing auction.

Welcome!

New IPOs on the Swiss Stock Exchange

12 June 2020 · INA · Ina Invest Holding AG · CHF 215 million

25 June 2020 · VZUG · V-ZUG Holding AG · CHF 463 million



Jeff Bezos
Amazon

Many people are impressed by the success of Amazon. Count me among them. The online bookstore that Jeff Bezos founded in a garage and built up together with his wife at that time is the world's most valuable company today. But my fascination with Amazon's success story didn't really grab me until three years ago, when I researched the company's growth strategy in the context of my post-graduate studies in Innovation & Entrepreneurship.

I'm inspired by how Bezos and his employees put customers first. But that alone doesn't make Amazon unique. I see two other points where Amazon really makes a difference. First, Bezos has repeatedly succeeded in branching out into adjacent sectors. The online bookseller was transformed into a media store, and from that into a marketplace for everything imaginable and later even into a supplier of cloud hosting services. Amazon accomplished that – and here's my second point – by constantly building on what it already had in place. Amazon initially

used its online store exclusively for itself, and its server capacity was originally conceived for the company's own use.

Tapping New Data, Harnessing Historical Data

The Financial Information business at SIX is in a similar position. We, too, have opportunities to make inroads into adjacent sectors, and we, too, can build on our achievements. We possess high-quality data on over 30 million financial instruments, fed by market data from around 1,800 sources. By incorporating alternative data from the real world, we obtain information at the entity level in addition to the information at instrument level. With this information, we will be able to meet our clients' demand for data that shows the sustainability and societal impact of an investment: ESG data.

Our historical data – our award-winning corporate actions data, for example – also come to mind. With the aid of cloud technology, we can give our clients access to this enormous volume of data for advanced analytics, expanding our target groups from the back office to the middle office and all the way to the front office.

Alternative data, cloud technology, advanced analytics – the development of the data business is tightly tied with technology. And new technologies always entail risk. Bezos takes risk as an essential element of his strategy. That's always a bet. But if you don't stake anything, you can't gain anything, and much worse than that, sooner or later you'll be out of the game.

Our employees are experts in their respective fields, and they never stop deepening their education and skills. In the course of their doing that, the best inputs sometimes come from an unexpected direction.



Sam Sundera
Head Future Business,
Financial Information, SIX

The Future of Finance is Now.

The finance industry is at a critical juncture and financial institutions are navigating through unprecedented change. At this tipping point, it is clear that the future of finance is now. SIX has proven capabilities to deliver for our clients, ensuring continuous innovation, maintaining stability and providing fresh thinking.



Visit us at six-group.com/future-finance