

Switzerland's Big Bang

The history of the SWX Swiss Exchange (condensed version)

1. Introduction

In 1996, the last cantonal bastions of floor trading in Switzerland – the stock exchanges of Zurich, Geneva and Basel – closed their doors, and the Swiss Exchange, as the SWX Swiss Exchange was then called, launched its electronic trading platform. This concluded the most visible and controversial phase of a comprehensive stock exchange reform that has affected practically all aspects of Switzerland's exchange environment.

Legally, the Swiss Exchange was founded in 1993, but actually, it succeeded the Association of Swiss Exchanges (Vereinigung der Schweizer Börsen, VSB) on the one hand and the stock exchanges of Zurich, Geneva and Basel on the other. So at the very least, the history of the SWX goes back to this reform. In fact it goes back even further to the early history of Swiss stock exchanges.

2. Before there were any actual securities exchanges (13th century – 1850)

The earliest traces of a financial marketplace in what nowadays is Switzerland date back to the 13th century. The Alpine region was gradually made accessible via trade routes. In appropriate places – first in Geneva, later in Basel – transshipment centres, markets and trade fairs developed. This naturally led to monetary transactions, prompting the Medici and other bankers to go to Geneva and, later on, to Basel. [*Figure No 1*]

In the 17th century, St. Gallen was Switzerland's main economic centre due to its textile industry. It was here that two service types were regulated for the first time: to begin with, a set of rules for messengers was drawn up and then, in 1639, the first set of rules for brokers (Sensalenordnung), which later on was used as a template for the Sensalenordnungen of Zurich and Basel.

In the 17th and 18th centuries, Europe's princes needed large amounts of money for their merchant fleets and military campaigns and made new demands on the capital markets. In other places, this resulted in the foundation of the first securities exchanges (e.g. in Amsterdam in 1602). The financial centre of Geneva flourished during this period because Genevan banks managed a significant portion of France's national debt. Huguenot refugees from France played an important part in this second flowering.

3. The rise of industry and finance; the establishment of stock exchanges (1850-1914)

In the early 19th century, industrialisation in Switzerland gradually embraced more than just textiles. 1847 saw the introduction of the first railway: the Spanisch-Brötlibahn between Baden and Zurich. The electric telegraph was introduced as well. Banks were needed for financing, and all this activity also prepared the ground for stock exchanges.

The first Swiss stock exchange was the Société des agents de change réunis, founded in Geneva in 1850. [*Figure No 2*] The Zürcher Börsenverein followed in 1855, although at first it was clearly a general association of merchants; for a long time, securities trading remained secondary. The Basler Börsenverein was founded in 1866, the stock exchange of Lausanne in 1873, that of Bern in 1884 and that of St. Gallen in 1888. Neuchâtel and Fribourg followed in 1905. The stock exchange daily lists were early outward signs of stock market trading. [*Figure No 3*]

During these eventful times, in 1880, Switzerland's first exchange building was inaugurated in Zurich. [*Figure No 4*] Soon after, the telephone was introduced at the stock exchanges. In 1882, the Bontoux crash in Paris had disastrous effects in Switzerland; it cost Geneva its lead position and resulted in the adoption of a cantonal securities law in Zurich. 1890 saw the beginning of the great railway fever, which prompted the first motion for a federal stock exchange act. At the turn of the century, industry was globalised in a way that has hardly been surpassed a hundred years later.

4. World wars and withdrawal (1914-1945)

The Swiss stock exchanges were closed for a protracted period during World War One, one exception being Geneva's bond trade. The postwar depression of the early 1920s was followed by the Golden Twenties. The ebullient mood resulted in the construction of a new exchange building in Zurich. [Figure No 5]. A ticker was installed for faster price dissemination. But in 1928 the economy slowed down, and after the Wall Street Crash of 1929, the economy fell into a deep depression. It only began to improve in 1936 with the devaluation of the Swiss franc.

5. First Switzerland-wide agreements

In the dreary 1930s a number of banking crises prompted the introduction of the Federal Banking Act. Once again a stock exchange act was debated in the political arena whose purpose would be to put the export of capital under political control. The stock exchanges and banks prevented the law once again. But the exchanges were required to join together in an association (Vereinigung Schweizerischer Effektenbörsen, VSE) in order to form the Swiss Admissions Board. By participating the Federal Finance Department and the Swiss National Bank were able to gain the influence which they had desired. [Figure No 6].

Immediately following World War Two, a Switzerland-wide Commission Rates Agreement was concluded which until then had been successfully fended off by the Geneva Stock Exchange. It standardised the banking fees for stock exchange transactions.

6. Post-war arrangements and experiments in technology (1950-1970)

It was only in the mid-1950s that the exchange turnovers surpassed the highs of 1929. The boom lasted until the dramatic stock market crash of 1962, which was the result of a combination of Swiss measures to cool the economy, a crash in New York and the Cuban missile crisis.

In the meantime, banks had started to use computers, and stock exchanges were also considering this new technology. Basel and Zurich introduced the novelty of stock exchange television; soon after, Zurich followed this up with stock exchange telex and electronic drawing equipment. In 1964 the Zurich Stock Exchange instructed Telekurs to examine the possibility of using computers at stock exchanges. In 1970 SEGA started operations as a central securities depository and settlement organisation. [Figure No 7]

7. The origins of Switzerland's Big Bang (1970s)

The reorganisation of the Swiss stock exchange environment was both an element and a result of the economic and social change, in terms of structures and values, that took place in the last third of the 20th century.

The war and crisis years impacted the economic order for a long time. It was the age of cooperative capitalism, which attempted to harmonise government economic planning, a market economy with guild-like nationalist regulation. From an economic point of view, the termination of the Bretton Woods Agreements (fixed exchange rates) by the USA in 1971 was the beginning of the end of the stable postwar system. In 1975 the US stock exchanges took another decisive step towards deregulation when they abolished fixed brokerage commissions.

The upheaval became painfully obvious to the population in general when the oil crisis, the worst depression since 1931, arose in 1974. There were discussions about the limits of growth. At the same time, the oil shock prompted such an inflow of capital into Switzerland that there was talk of closing down the exchanges. In these turbulent times, the economic-political debate centred on the conflict between the workplace and the financial marketplace. [Figure No 8]

The fluctuating exchange rates entailed new risks and hence the need for appropriate hedging options. The answer lay in financial derivatives, which were the adaptation of a proven hedging tool from the commodities markets to the financial sector. The new instruments soon spread from the foreign exchange markets to the securities markets. In 1973 the Chicago Board Options Exchange (CBOE) was founded – the first exchange to deal exclusively in financial derivatives.

During this time, automation was advancing unstoppably. An electronic trading system called Instinet was launched in the US as early as 1969. The first electronic exchange system, the Toronto Stock Exchange's Computer Assisted Trading System (CATS), was introduced in 1977, though for a long time it operated on a very limited scale.

In the 1970s, three contributory factors appeared that have determined the development of the financial markets to this day: the triad of deregulation, derivativisation and automation. Dr. Nicolas J. Bär, chairman of the Zurich Stock Exchange, vividly expressed their combined impact in the 1986 annual report: "We are living in hectic times. All of the major financial markets are in turmoil: deregulation, liberalisation, internationalisation, cut-throat competition, 24-hour trading, inflation of the trading instruments and dramatically growing use of EDP. In all this confusion, it is not easy to keep up. Things that have remained more or less the same for decades are now being questioned." These developments did not only have a threatening side; they were also a liberating departure that generated great dynamic force.

8. The 1980s: a strong starting position

In the early 1980s, Switzerland's stock exchanges were very comfortably positioned in an international comparison. Broadly speaking, the pronouncement that Fortune Magazine made on the major Swiss stock exchanges in 1958 still held true: "The Zurich Exchange is the most cosmopolitan securities market in Europe. – Because it is also the freest. ... More US securities are traded in Zurich than anywhere else outside North America." Statistics showed that Switzerland was the world's third-largest financial centre after New York and Tokyo and that it was ahead of London. It is also notable that, in Switzerland, trading was strongly focused on foreign securities.

Switzerland enjoyed a unique combination of a highly integrated market with largely independent stock exchanges and a framework consisting of a highly federative system. Stock exchange television allowed traders to follow the developments at other exchanges in real time. Because all stock exchanges featured more or less the same securities and the same banks contributed large shares of the business volume, rules and usages had to be very similar for reasons of practicality. The listing of foreign securities was standardised by the Swiss Admissions Board. SEGA consolidated Switzerland's securities market on the settlement side. For the most part, cooperation was also smooth in connection with the brokerage convention and the turnover fee (the fee for the exchange organisation), which had been introduced in 1971. And yet, true to Switzerland's traditional emphasis on individual cantons, the stock exchanges considered themselves cantonal institutions and kept a certain distance to each other.

9. Explosive growth in trading volume produces capacity bottlenecks

During this time, capacity bottlenecks were the greatest challenge for the stock exchanges. The exchanges of Basel and Geneva had each introduced a second trading ring in 1973, and the Zurich Stock Exchange had introduced a third ring in 1975. But these measures gave only temporary relief in view of ever-increasing trading activity.

Looking back, it may seem surprising that there should have been capacity bottlenecks when trading lasted three hours at most, from 9.30 to about 12.30, and the trading floors remained unused for more than twenty hours a day. This is more easily understood when one considers the level of communication and office technology of the time: an earlier start of trading would hardly have been possible, because the customers first had to inform themselves about the previous day's trading and consider their next steps. And once trading was over, a large amount of time was required for administrative follow-up work – some of it performed manually, some of it performed using cumbersome punch-card applications according to fixed badge schedules. As little as two and a half hours of intense trading could necessitate night shifts in the back offices of the banks. This resulted in calls for more trading rings so trading could be settled as quickly as possible and for streamlined back-office procedures and more efficient links between clearing and settlement.

10. A new sprit of cooperation

From a financial point of view, these challenges had a common denominator: substantial imminent investments in premises, installations and technology. In the 1980 annual report, Georges E. Urban [*Figure No 9*], the newly appointed chairman of the Geneva Stock Exchange and hence also president of the VSE, wrote: "Every day it is becoming more important to coordinate and harmonise the capital market at the international level. We should therefore apply all appropriate and practicable measures in Switzerland to ensure our competitiveness against other major financial marketplaces."

In a letter sent to his colleagues in Basel and Zurich in 1982, Urban suggested the institution of a commission at the highest level. This led to the foundation of the Commission Tripartite Bourses (CTB) under the chairmanship of Richard Schait [*Figure No 10*]. Schait was the head of the stock market division of UBS, vice president of the Zurich Stock Exchange and long-time mentor of a computerised stock exchange.

Four major technological-organisational projects were launched by the CTB:

- A trading-floor information system (Ringinformationssystem, RIS) as a significantly expanded version of stock exchange television
- Trade processing (Abschlussverarbeitung, AV) for the electronic linking of floor trading and the back office
- Traded Options & Financial Futures, TOFF, for an options and futures exchange
- A computer-assisted trading system (Computerunterstütztes Handelssystem, CHS)

11. Open outcry with more technology

In 1986 the stock exchanges of Basel and Geneva moved to new premises. [Figures No 11 and 12] Because the new exchange building in Zurich was delayed, the Zurich Stock Exchange was enlarged within the existing premises; this was completed in 1985. RIS, which had been developed by Telekurs, could now be implemented. This was all the more important because trading underwent a sweeping reorganisation in 1986. For a long time securities had been traded twice per day for a short period of time. This method was supplanted by a more differentiated system in which trading in major securities remained open throughout the trading periods. This continuous trading provided for a significant increase in the turnover of blue chips and was particularly important for the derivatives trade.

With the introduction of RIS (and later AV), CTB evolved from a project developer to a system operator. [Figure No 13] Maintenance and further development were very costly. Several new trading rings were being built. Moreover, due to the advance of automation in the banks' back offices, trading hours were gradually extended until finally closing took place at 4 p.m. The existing structures with the CTB as an informal Commission were no longer sufficient, particularly as a stronger organisational structure was required for the TOFF project. Difficult political decisions had to be made.

Geneva sought to install the Swiss Electronic Exchange (SWEX) in Geneva by holding out the prospect of more liberal legislation. This provoked an angry reaction from Zurich. A veritable clash of the stock exchanges and banking groups ensued which hardened the already embittered fronts between proponents of traditional floor trading on the one hand and computer advocates on the other. In the end, CTB was turned into an association called Association Tripartite Bourses (ATB) that was modelled on the stock exchanges. It was domiciled in Geneva while its offices were in Zurich (but independent from the Zurich Stock Exchange).

AV was introduced between 1986 and 1988. This interactive and therefore highly complex system was based on the same technology as RIS and had also been developed by Telekurs. New projects emerged. As derivatives gained ground (Soffex, written options) the demand for more transparency in connection with trading turnovers became more and more articulate. In 1989-1993, the reporting project brought a degree of transparency to Switzerland's stock market which was revolutionary at the time.

12. Deregulation is catching

In the early 1980s, Switzerland also underwent a process of deregulation and elimination of cartels. In 1985, the Admission Office stated that "the rapid development in the main market is characterised by massive borrowing, new financing needs, the liberalisation and internationalisation of the capital markets, intense competition and the associated creativity of the market participants. The rapidly increasing number of different swap operations is also an important factor."

Evidently, the primary market, which was controlled by the two major issuing syndicates, was the first to undergo change. The junk-bond wave spilled over from the USA to Switzerland. The traditional syndicates had no interest in these low-quality debtors because they were not up to their Swiss standards. The heated debate was fuelled by two small issuing banks in Geneva. Political pressure had even prompted the Federal Council to turn its attention to the practices of the Swiss Admissions Board. In spite of a sweeping reform between 1985 and 1987, the Cartel Commission recommended the abolishment of the Admissions Board. Instead it was turned into the Admissions Board of the SWX.

In London, the Big Bang (major reform: elimination of fixed commissions, admission of banks to the stock exchange) took place in 1986. Part of this development, the admission of banks, had taken place almost a century earlier in Switzerland. The elimination of fixed commissions, however, swept across Europe like a cyclone and had a lasting effect, in Switzerland as well. In this environment, the Swiss Cartel Commission undertook a

comprehensive investigation of all of the banks' conventions and agreements. The investigation focused on the Commission Rates Agreement, which ensured standardised banking fees for stock exchange transactions. After strong resistance (the brokerage convention had just been revised in 1986) the stock exchanges gave up in 1990. Later, Alain Hirsch called this resistance "the profession's last rearguard action, ...which in the end was doomed not because of the ordinances of the Cartel Commission but because of continuing globalisation."

13. A new index is required

In the light of the imminent foundation of Soffex, it became apparent that Switzerland needed a new independent equity index. It would have to be managed and operated in a fully transparent manner in order to be replicable by market participants. Accordingly, the Swiss Performance Index (SPI) and its many subindices for various sectors and categories of stocks were introduced in 1987. It was soon realised that a blue-chip index would have been more appropriate for trading on Soffex, so the Swiss Market Index (SMI) was developed and introduced in 1988. Later, a family of bond indices was added. All indices initially took equal account of price changes on the three ATB exchanges. Price data were taken from the RIS infrastructure and the indices were calculated by Telekurs.

14. Eagerly anticipated derivatives exchange

CTB vigorously pursued the TOFF project. TOFF, however, seemed rather exotic to traditionally-minded stock market specialists. The expected trading volume, which was determined on the basis of the existing business in forward trades, was very low (3,500 to 5,000 contracts a day). Initially, floor trading at the stock exchanges of Basel, Geneva and Zurich was considered, but it did not seem sensible to distribute the low volume among three exchanges. Since focusing the trading activity on only one of the exchanges was not possible due to federalist considerations, the only possible solution, and the one that was adopted, was to introduce an electronic system even though at the time options and futures were not traded electronically at any of the exchanges. In 1985 the idea arose to use CHS in connection with TOFF. The stock market specialists were happy that they had finally found a way to put CHS to good use in a different field.

This placid atmosphere was disturbed by the demands made by a number of banks. They did not want to wait for CHS. Another reason for the rush was the development of written options, a brilliant innovation by Martin Ebner that has stimulated stock market trading significantly but which initially was primarily seen as competition for Soffex. To speed it up the TOFF project was therefore started anew, this time outside the organisational structure of the ATB. A new body, the Steering Committee Options & Futures (SCOF), started to evaluate the various foreign trading systems that had emerged by then, but practical constraints required the development of an original solution. Soffex was formally established in 1986; trading started on 15 June 1988. It got off to a good start: on the fifteenth trading day, more than 10,000 contracts were executed. The eleven basic shares for options were soon complemented by options and futures contracts on the SMI and on interest rates. In 1994, Soffex was Europe's number one for equity options. [Figure No 14]

15. Consolidation strategy

The close cooperation that existed between the Swiss stock exchanges from the early 1980s resulted in a multitude of new committees, subcommittees, working groups etc. The management structure was unclear. The highest governing body of the VSE was comprised of the chairmen of the various stock exchanges. In Zurich, Basel and Geneva, these were private bankers. Only some of the smaller exchanges had representatives from the "big banks" at their helm. Consolidation was needed; a way had to be found to include the relevant representatives of the big banks in the governing body.

In September 1988, after intense discussions, a board of directors was formed as a governing body for the VSE, which was renamed "Vereinigung der Schweizer Börsen" (VSB) after the admission of Soffex. The VSB remained an association of stock exchanges, but the new board of directors reflected the market structure in general (banks and banking groups) rather than the structure of the stock exchanges. In the new governing body, the three major banks were represented by their respective general managers..

The board of directors immediately set out to define a strategy. A year later, in November 1989, it adopted the following main objectives:

- Development of an electronic trading system

- Gradual consolidation of the stock exchanges
- Adoption of a “Commission for Regulatory Issues” with the aim to ensure compliance with international regulatory standards

Earlier than expected, the stock exchanges of Neuchâtel and St. Gallen were closed down. A major factor was the abolishment of the Commission Rates Agreement, which eliminated the main reason that the banks at the smaller financial centres had for maintaining their stock exchanges. [Figure No 15] The members of the Lausanne Stock Exchange joined that of Geneva. The Berne Stock Exchange discontinued floor trading but continued as a telephone exchange. The next step was the foundation of the Swiss Exchange (Schweizer Effektenbörse, SEB) on 26 May 1993. The SEB took over the ATB, Soffex, the Admissions Board and the Commission for Regulatory Issues. The VSB was dissolved. A new board of directors was formed comprising thirteen bank representatives and three representatives from other areas of the economy. The chairmanship passed from Georges E. Urban to Dr. Jörg Fischer. [Figure No 16] For the most part, the new management consisted of the heads of the previous organisations. In effect, the SEB assumed control of the existing local stock exchanges with floor trading. This involved the power to close down the local stock exchanges at its discretion.

16. From floor trading to electronics

The most difficult part of the reform was the switch from floor trading to an electronic trading system. This was accompanied by bitter power struggles and ideological conflicts. It was a very difficult path from the first CHS project in 1982 to the third EBS/Soffex project, which was launched in 1992.

In the 1980s, it was clear to everyone that the advance of the computer was unstoppable. At the same time, traders were unanimous in believing that trading was too complex for computers and that it would not be possible to automate it by the end of the century. A typical concept of the time that was discussed at stock exchanges the world over was that of the "locked-in trade", i.e. traditional trading enclosed by automated processes. In Switzerland, this led to the idea of traditional floor trading supported by (1) electronic information systems such as RIS and AV, (2) the order-routing and back-office processes of banks and (3) the settlement procedures of SEGA. The weakness of this concept lay in the fact that it ultimately attempted to isolate a traditional process from the technological advances that were taking place all around it, thereby ignoring the interdependency of the various processes.

When CHS was being developed, the traditionalists initially had control. In particular the influential stock traders were needed to draw up the task specifications. They also ensured financing for the ATB projects. Over the years a system was developed which, according to the official specifications, was to be used only for trading in bonds with particularly low trading volumes. When all was said and done, the computer proponents, who generally sided with the management of the banks wanted more. The differences between the two factions, and those between the adopted task specifications and the actual expectations, were irreconcilable. As a result, the CHS project was discontinued prior to undergoing practical tests. The same fate was encountered two years later by EBS, the follow-up project, at a less advanced stage. [Figure No 17]

In the meantime, Soffex had been highly successful. Derivatives were flourishing and gaining importance in the trading departments of the banks, changing investment techniques and trading in quite fundamental ways. Risk management became a central topic, and derivatives allowed investors to take on – and hedge against – greater risk. Resistance against computers crumbled. In 1992 EBS/Soffex was pursued, the third project with the aim of introducing automated trading. Many Soffex employees were involved in it. The system architecture was based indirectly on the Soffex system via the trading system of the Australian Stock Exchange, which had taken over the former Soffex system from the DTB; the consulting agency Arthur Anderson had expanded it and turned it into a securities trading system.

This time, the VSB did not grant a general contract; instead, the committee of the board of directors assumed control itself. Bernhard Sauer, a highly experienced project manager with great stamina, was put under contract. The final stage of the project was characterised by strong turbulence, but in 1995 and 1996, electronic trading was successfully introduced in three steps:

- From 7 to 8 December 1995 for the foreign-shares segment
- Between 31 July and 2 August for the largest segment, that for Swiss shares and all options
- From 15 to 16 August 1996 for bonds

When the signal to close trading rang on 15 August 1996, it concluded an era at the Swiss stock exchanges that had lasted well over a century. [Figure No 18] The sceptical NZZ published an article entitled "Can machines replace traders?" But it did not take long for previous opponents to state that the system was "far better than we ever could have hoped". As Dr. Jörg Fischer, then Chairman of the SWX, declared, it in fact proved to be a "power pill for the Swiss marketplace". The high level of technological interconnectedness helped propel the SWX to the forefront of developments.

17. The stock exchange during the Internet and technology bubble

The Internet and technology bubble produced a textbook example of stock market fever. It began in late 1996, when the SPI stood at 2500 points, and peaked in September 2000 at more than 5700 points. The gradual decline was accentuated by the terrorist attacks of 11 September 2001. By early 2003, the exchange had dropped to the level of 1996. [Figure No 19] Soon, however, it prepared for another summit assault.

The technology bubble was a period of great upheaval. The introduction of the euro kept Europe in a state of apprehension while the IT world was kept in suspense by the turn of the millennium. A side effect of this upswing was the New Economy, in which once again all rules of economic reason were overthrown. In this climate, the EU, during its summit meeting of 2000 in Lisbon, resolved to make Europe the world's leading knowledge-based economy. Europe discovered the term "initial public offering" (IPO) and hoped to generate the financial impetus required by the Lisbon strategy by promoting venture capital and SMEs. This caused the "new markets" to flourish. To a large extent, the upward momentum was fuelled by spectacular corporate mergers. The downturn was accompanied by numerous corporate scandals such as that of Enron in the USA and, no less dramatic, that of Swissair in Switzerland.

As Europe's ties became closer, a phase of manic alliance-forging broke out. Internet-based trading systems became all the rage. Trading hours were extended into the evening in some cases, and in the course of this process of internationalisation, stock exchanges stopped observing local holidays. The SWX launched a new Eurobond segment and an ETF segment. In cooperation with the SNB, it developed a repo trading system that was transferred to Eurex not long after.

18. The Swiss Stock Exchange Act

From 1890 through 1940, a federal securities exchange act was considered on several occasions, usually after a crisis on the stock market. [Figure No 20] When a federal stock exchange act became an issue again in the late 1980s, the significance of the crash of 1987 was at best political. This time, it was legal developments abroad and increasing cross-border interdependency that intensified the call for the cantonal rules and regulations to be replaced. The USA were putting significant pressure on Switzerland in the matter of insider trading. Fritz Leutwiler, Chairman of the SNB and later Chairman of the BIS, spoke of US jurisdictional imperialism.

A need for action was also identified in the area of takeover law. As a result of the intense takeover activity in the US, which also extended to Switzerland, company managements and boards of directors tried to secure their positions by introducing ever stricter limitations on the transferability of securities. This sparked off a heated debate that resulted in the formulation of a private takeover code which in turn opened the next animated discussion on whether such provisions were even permissible under private law. [Figure No 21]

In 1988 the newly appointed board of directors of the VSB concluded that a federal securities exchange act should be adopted. This change of heart was partly due to the hope that such an act would make it easier to overcome the federalism that was still deep-rooted among the exchanges. Moreover, focusing on an electronic exchange that would extend to all of Switzerland made it seem almost natural to enact a federal law. Thanks to the stock exchange's positive attitude, it was able to exert a decisive influence on the legislative process, notably through Prof. Alain Hirsch, the head of the regulatory committee, and the secretary of the SWX, Dr. Dieter Sigrist.

The Federal Act on Stock Exchanges and Securities Trading (SESTA) entered into force in 1997/98. With the introduction of SESTA, the Commission for Regulatory Issues of the SWX became the Swiss Takeover Board. The task of supervising the stock exchanges was assigned to the Swiss Federal Banking Commission. The new law also confirmed, and in certain respects expanded, the self-regulatory powers granted to the SWX under the earlier cantonal rules.

19. From Soffex to Eurex

The Soffex system was taken over by Deutsche Terminbörse (DTB) in 1988, shortly after its introduction. Several years later, when Soffex, because of its success, had to look for more effective technological solutions, it once again entered into talks with DTB. During the Bürgenstock conference in September 1996, these talks resulted in a letter of intent to merge DTB and Soffex. Two years later, on 28 September 1998, Eurex began operations. Thanks to its superior electronic trading system, Eurex managed to surpass the Chicago exchanges in 1999 and become the world's biggest exchange for options and futures. Since then it has defended this position against all competitors except for the special case of the Korean derivatives exchange.

One of Eurex's trump cards right from the start was the internationality gained, among other things, from its Swiss and German founders. Its membership likewise quickly became highly international. US members played a key role at Eurex. So after several failed attempts at cooperation, it tried to establish its own stock exchange, Eurex-US, in the USA. Stiff resistance from the American exchanges and their regulators have prevented success in this area.

20. In pursuit of a strategy of internationalisation: virt-x and Stoxx

Right into the 1990s, stock exchanges for the most part considered themselves national financial marketplaces. Eurex seemed like an anomaly. The EU's Investment Services Directive (ISD) and the euro resulted in a general mania among stock exchanges for forming alliances. This prompted the SWX to pursue a strategy of internationalisation as well. [Figure No 22]

It seemed that London would become the financial marketplace in Europe, so the SWX acquired a significant share in Tradepoint, a small London-based securities exchange. A further owner of Tradepoint was an international consortium mainly comprised of large investment banks (Switzerland's two big banks among them). The SWX furnished Tradepoint with its new trading system and linked its trading systems to an international network of clearing and settlement organisations. The legislature helped by adapting the Federal Stamp Tax Act to the new situation in an expedited process. It was hoped that the SWX's unique international Swiss Value Chain would draw cross-border transactions in European blue-chips to its platform. As starting capital it received the trade in Swiss blue chips from the SWX. The listing of Swiss blue chips stayed in Switzerland, but they were now traded at virt-x and hence, from a regulatory point of view, in London. On 25 June 2001 virt-x got off to a successful start.

Thanks to virt-x, the SWX was able to return a significant market share of Swiss equity trading from the London Stock Exchange to its system, but it had to face the fact that, regardless of the trend towards globalisation, securities are still linked to their home exchanges. In spite of intensive efforts, the trade in non-Swiss securities remained small.

In order to market the data of the SWX Swiss Exchange and virt-x jointly, a new company, EXFEED, was founded at the same time that virt-x was established.

The index company Stoxx has its origins in far-reaching plans to cooperate with Deutsche Börse and Bourse de Paris. Today, Stoxx is operated in conjunction with Deutsche Börse and the American Dow Jones. Stoxx50 is the leading European blue-chip index. [Figure No 23]

21. Quotematch – a new trading system for advancing derivatisation

In combination with automation, rapidly advancing derivatisation introduced great changes to the markets. EBS, launched in 1995/1996, was still strictly oriented towards an order-driven market. Before automation, there had been about one quoted price (bid, asked or paid price) per second on all Swiss trading floors combined. The original EBS system was designed for twelve such transactions (quotes or trades).

A notable aspect of derivatives is the often very numerous and mathematically clearly defined dependencies between them and their underlying assets (securities price or index level, which in turn is the result of many constantly changing securities prices). Moreover, market making and hence quote-driven trading systems became the norm for derivatives. Market making was mainly performed by computer on the basis of incoming data streams and the trading programs (algorithmic trading). Efficient trading systems had to take account of this change and be able to process thousands of changes in bid and asked prices each second.

Quotematch is the biggest change that the SWX has ever made to the trading system. This additional system was not developed by the SWX; instead, a product that was available on the trading-system market was purchased and modified as needed. The system is the basis for other important developments at the SWX.

22. Continuous change as the only constant

Because of the numerous corporate scandals that erupted towards the end of the great stock market euphoria, corporate governance (CG) became an important subject both in Switzerland and abroad. In mid-2002, both the CG directive of the SWX and the CG code of *économiesuisse* entered into force. The directive immediately achieved significantly improved transparency in connection with corporate-governance issues.

The SWX also monitors compliance with disclosure requirements for securities listed in Switzerland. The duty to publish management transactions was introduced in 2005. In the same year, it became mandatory for issuers listed in the main market to present their accounts in accordance with IFRS or US-GAAP.

In 2002/2003, the SWX was reorganised as a group and took over virt-x. This closely merged the management and operation of the SWX Swiss Exchange and virt-x. In addition, the agreement with Deutsche Börse concerning the jointly managed Eurex was extended by ten years. Furthermore, the SWX and SIS have worked closely together to further develop the Swiss Value Chain. *[Figure No 24]*

On the other hand, legal developments in the EU have shown that it is still very difficult to operate an exchange across national borders. In spite of much talk to the contrary, there are still high border fences in place which proceeded from intense locational competition between the various financial marketplaces.

In 2002 Dr. Reto Francioni *[Figure No 25]* succeeded Dr. Jörg Fischer as Chairman of the Board. When the former was appointed CEO of Deutsche Börse, Jacques de Saussure became Chairman ad interim until the General Assembly elected Prof. Dr. Peter Gomez Chairman in 2006. *[Figure No 26]*

23. Closing remarks

Switzerland's Big Bang was more of a heavy and protracted roll of thunder. Unlike its London model, it was not so much the result of a government-imposed policy but rather of a series of both internal and external contributory factors, particularly international ones. Derivatisation, automation and deregulation were pivotal. *[Figure No 27]*

During the euphoria of the 1990s, it was assumed that automation would result in major consolidation among stock exchanges and that this consolidation would be the first step towards their disappearance. Reality proved different. On the one hand, technology and the creativity of new market participants have shown new ways to interconnect an indeterminate number of stock exchanges and traders. On the other hand, stock exchanges are concerned with the transfer of property and hence with central and deep-rooted values and norms. In this sense, they operate between two poles, one characterised by innovative and geographically mobile market forces, the other by nationally oriented, traditional regulation.

And so at the stock exchanges everything is in a state of flux, and the old proverb applies which states that the more things change, the more they stay the same. After all, stock exchanges remain meeting places for traders and the supply of and demand for securities that have been admitted to trading – and they also ensure orderly processes. *[Figure No 28]* It did this yesterday, it does this today and it will do this tomorrow.