

Everything under control

1. One catastrophe a year – regular as clock-work

Taking a look back at the last couple of years, we see not only an astonishing variety of events and crises, which are certainly on a scale to provide the history books of the future with content – we also see a remarkable regularity in their occurrence:

1997	Economic and currency crisis in the Far East
1998	Russia crisis; LTCM case
1999	Millennium bug
2000	End of the technology boom, Nasdaq crash
2001	Terror attack on 11 September
2002	Enron case; Argentina crisis
2003	Iraq war

The list is depressing inasmuch as extrapolation would indicate, without an excessive degree of pessimism, that the probability of its continuation in 2004, 2005 and so on is relatively high. The world is obviously a system with immanent errors, which generates its own faults; coming to terms with this and acting accordingly, is an integral part of the *condition humaine*.

This might give one food for thought, and indeed destroy any ability to look forward to the future. And one really does have the impression that the low level of investment by business in the western industrial nations has been brought about not least by such negative feelings, and remains affected by them. They replaced a phase of euphoria, of certainty that “one” – and not just any one, but almost everyone at once – was just about to become masters of the universe, to achieve a market share of over one hundred percent, and to increase the profitability of their activities infinitely. The next day, the morning after this extremely wild night, is characterized by a splitting headache, and the sobering realization that everything is going to be much more difficult, more dangerous and more laborious than had briefly seemed to be the case.

On closer consideration however, negative feelings do not appear to be the only conceivable reaction to this sobering insight – rather, the astounding realization that the system as such has survived the many crises of recent years remarkably well. We are all still here! And this despite the fact that such stability in the system was at no time an a priori given. The economic and currency crisis in the Far East in 1997 brought the IMF to the verge of ruin, because the total liabilities far exceeded its financial reserves, and because, as is the case in crises, everything threatened to become due at once. A classic bank crash then, only with the added disadvantage that there was no “lender of last resort”, no global central bank. By means of drastic currency devaluations in the countries concerned, and an effective devaluation of the loans to those countries, the problem was spread across a large number of shoulders, and thus resolved – a pattern that was next followed in the subsequent crisis with Russia. In detail, the processes were doubtless sub-optimum, unjust, and destructive of capital. But the system as such survived.

We laugh today at the panicked anxiety over the Millennium Bug, the possibility that just about all the computer systems in the world would fail to survive the 1999/2000 New Year, because they had originally been programmed to revert to 1900 after 1999. The chaos that would have arisen if this had happened to only part of the system does not bear thinking about. The day-to-day functioning of our world is based on the assumption that malfunctions do not occur in its technical systems.

However varied the series of events appears, a common pattern is detectable in these business related crises. Whether it's the Far East, Russia, LTCM or technology, it always involves a large number of people, players of every sort, bathed in what ultimately turns out to be a false sense of security. People rely on the linear continuation of what has happened so far, or they put their trust in guarantees that as such, and on such a scale, simply cannot be given. Goethe's comment that “Alles in der Welt lässt sich ertragen, nur

nicht eine Reihe von schönen Tagen” (Everything in the world can be endured, apart from a succession of fine days) obviously also applies to business and economic issues, and when institutions such as the IMF are organized, or understand that their task is to produce the longest possible series of fine days, then it gets particularly dangerous. And no less disastrous, in view of the subsequent Nasdaq crash, have been the practices of the investment banks, prolonging trends and talking up the extrapolation of pseudo-paradisiacal conditions.

Each of the crises of recent years has, in one way or another, put an end to a condition of *accumulated illusions*. This can also be said of political events. The terrorist attacks on 11 September 2001 made it perfectly clear that the supposed end of history, prophesied by Francis Fukuyama in 1989, had not, after all, come about with the victory of democracy in Eastern Europe. After the fall of the Berlin Wall and the end of the Warsaw Pact, there was perhaps for a certain time something like a vacuum regarding events of a historical nature, an absence of eruptions of violence and of the apparently senseless destruction of peaceful coexistence between people. As if either conditions around the world were so equitably balanced that such a peace would represent an acceptable state of affairs for all, or as if more acceptable conditions could be achieved by evolutionary means within the foreseeable future. And also as if there were already some kind of “global ethos”, some kind of minimal code that could be subscribed to by people of all philosophies and religions. Such illusions were brutally destroyed, once and for all, by the terror attacks of 11 September and thereafter. These events do not simply represent disturbances in the democratic order, but have the potential to shake the foundations of that “liberal democracy” declared victorious by Fukuyama. With the best will in the world, the end of history is thus nowhere in sight. The only insight can be that there are people, groups and organizations in the world that, for whatever reason, will accept neither a more or less democratic, evolutionary order of society nor any minimal ethical standards. They take hostages, they murder innocent bystanders and do not even act rationally in their own best interests, but think little of killing themselves. There could be no worse enemy for those who believe in a free and open civil society.

The Iraq war finally put an end to the illusion that a great power could manage over the longer term without the direct application of force, or could be constrained in its freedom of action, or

disciplined, by a network of multilateral organizations. In this regard, “Iraq” represented a blow struck by the USA to liberate itself from international entanglements, delivered to an object that was obviously weaker than had been supposed. That the campaign has now, with the benefit of hindsight, been revealed as more difficult and risky, does not weaken this interpretation. Since March 2003, history is back, as it ever was. Periods devoid of the application of power by means of force are illusionary – historical episodes without any sustainability.

2. An end to illusion – catastrophic?

A succession of fine days is hard to endure, as Goethe remarked. We agree with him on this. From this it follows that the ending of a state of illusionary fine weather cannot be an altogether unwelcome occurrence. It may well be a painful one, because such an ending is generally associated with the drastic destruction of assets or, still worse, massive loss of life. But without such an ending, the succession of fine days would just be continued further, and still more people would put their trust in illusionary pseudo-paradisiacal conditions, and ultimately the system as a whole really would be threatened.

It is difficult, in these circumstances, to avoid cynicism. But there is undoubtedly a feedback mechanism between the succession of interruptions in the fine weather and the health of the system. Those familiar with the working of the stock exchange as investors are aware of the need for periodical drastic falls in prices, to prevent the over-leverage of the financial system by uncontrolled risk-taking on the part of its players. Why the risk-taking? Because it is worthwhile until just before catastrophe strikes. The sooner the collapse occurs, the less dire its consequences. Thus, in 1997/98 it was high time to put an end to the illusion that the IMF could simply act as an effective guarantor to all the emerging countries, from Malaysia via Thailand to Russia. This pseudo-guarantee was the cause of gigantic risk-taking by means of currency speculation. The ending of the illusion of the “bailing out” of endangered countries by the IMF resulted initially in serious, indeed catastrophic losses, both for creditors and for the debtor countries. Today, six or seven years later, not only are all these countries significantly better off, but some of them now belong to the group known as the “locomotives of the global economy”. Who would have thought that in 1997/98?

It may be that in a few years we shall think differently about the events of 11 September 2001 or the Iraq war. Al Qaeda's terror might, for example, give rise to the insight that for the civilized West it is not sufficient to rely on the existence of an ill-defined and non-committal "global ethos", while going out of one's way to avoid the values issue that ultimately always result in the confession of a religion or an ideology. To be more specific, it may be that the challenge from the totalitarian version of Islam, with all its unimaginably illiberal practical implications, for example in the treatment of women, will result in the replacement of the lax variety of values by a more self-confident pattern of thought in the tradition of the Western Enlightenment. The long-term consequence of the Iraq war may be the effort to break the USA's monopoly of power. Pure multilateralism will not be sufficient here – new centres of power will need to be formed: China, Russia, perhaps together with Europe.

In other words, apart from their immediate impact, there are two ways in which "catastrophes" are anything but catastrophic. Firstly, they reveal the effective stability of a system, by testing it, so to speak. Secondly, they bring about changes in thought patterns, that lead away from illusions all too long accepted as facts. The subsequent state of affairs is more realistic, provided, of course, one is still around.

3. The problem with prevention

We said above that it is difficult to avoid cynicism in connection with catastrophes and their feedback mechanism. So let us remind ourselves of the immediate impact of catastrophes and crises – the enormous, gross and ugly consequences, the losses, of life, limb or possessions, to so many people. The many thousands of lives lost as a result of 11 September, the destruction of existences in Malaysia, Thailand and Turkey in the wake of the crisis of 1997, the enormous losses to investors caused by the Nasdaq crash. They result in the desire, indeed the demand, that everything should be done to prevent these and similar occurrences in the future. Prevention is the key word.

The desire for prevention is understandable, but it is not necessarily justified. For prevention presupposes that the causes of the crisis or catastrophe are known. A simple "post hoc, ergo propter hoc" will not suffice – just because two things occur one after the other in time by no means necessitates any kind of causal relationship. Erroneous assumptions of causality are the rule

rather than the exception. Furthermore, the complexity, indeed the randomness of the conjunction of causes is frequently underestimated, and simple causalities assumed. The Enron case was, and is, described in terms of a chain of causality consisting of inadequately stringent accounting regulations, unclear corporate governance, the privatization of a public service that belongs in the hands of the public, and a management mentality in the USA light-years removed from ethical standards. Nobody stops to consider that a certain percentage of criminality will remain, whatever the prevailing conditions, stringent or lax, state or privately owned. Were one to acknowledge this, and thus accept "accidents", criminal activity, crises and catastrophes as an integral part of the *condition humaine*, then the only matter of interest would be under what conditions more and under what conditions fewer of such events tend to occur. The criminal activity in Enron and many similar cases in 2002 was brought to light because the collapse in stock prices meant that it was no longer possible to plug the holes, fully or even in part. Looked at in these terms, rigorous causality would indicate that the fall in stock prices bears a significant amount of "blame" for the fall of Enron...

"Vision Zero" in Switzerland describes a concept, on the Swedish pattern, aimed at reducing the number of traffic accidents to an absolute minimum in the future. Causality is relatively easy to determine in road traffic. There *is* a relationship between the speed of vehicles and the number of accidents, and there *is* a relationship between the tolerated level of alcohol and road traffic deaths. "Vision Zero" will be achieved when all citizens are subject to continuous alcohol tests or, even better, when all traffic has been eliminated. For prevention cannot be achieved without major side effects. How much more difficult is it then when prevention is required in areas in which the causalities are far less clear than in road traffic?

Will Enron be avoided in the future if accounting regulations become still more rigorous, if the activities of auditors are subject to additional controls, if, by means of committees of every possible sort a balance of power is achieved and responsibility thus becomes socialized? Can terrorist strikes like that on 11 September really be avoided by – as laid down in the so-called Patriot Act – subjecting all possible transactions of money and goods to strict, and in part absurd, controls, by intensifying personal controls at the borders to the extent that tourists avoid the United States, or by attempting to impose

American conceptions of legality on other sovereign states?

Prevention produces *side effects*, that can rapidly turn into the *principal effects*. And prevention can also, when the causalities are not entirely obvious, be ineffective, indeed counterproductive, in its main aim. But: preventive measures in the wake of crises and catastrophes have the advantage that one is seen to be “doing something”. They have media impact, are reassuring, and are thus very popular in political circles.

4. What does this have to do with the English coastline?

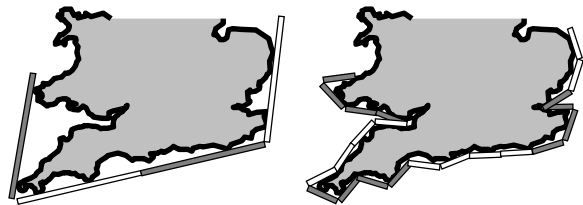
It is our view that all these crisis-like events over the past years have unleashed a systemic reaction in the direction of more and better prevention, and one that is in a class of its own. Accounting standards have been adjusted, corporate governance regulations written, stock exchange listing rules revised. Under the title Basle II, an enormous effort is in progress to systematize bank debtors, so as to be able in future to better coordinate the security requirements of the regulators and the profit expectations of the banks. An attempt is being made in Switzerland, with a 39-point regulation, to deal better with the problem of money-laundering, and to be still better able to prevent the deposit of unwelcome funds in Switzerland. “Vision Zero” is an objective not only of the local transport minister, but also of the Federal Banking Commission, which envisages the possibility of creating, for all time, a “clean” financial centre. The topic of terror prevention preoccupies all the ministries of justice in the world, and under the title of the “war against terror” enormous databases are set up and maintained, databases in which one day every school-boy prankster who has ever dropped a firework into a letterbox will be registered as a “terrorist suspect”.

The key term in all these energetic efforts to prevent every conceivable and inconceivable form of future disaster is “information exchange”. Wherever in the world there are databases, they should be made accessible and enlisted in the noble purpose of prevention. For it just might be the case that one might get some extra information, that is just that final bit of information that is lacking to move a bit further on the way to still better prevention. For many people, including not a few customers of Swiss banks, for whom their private sphere still means something, such developments are of course anathema. We shall show below, however, that such efforts are not only alarming in their side

effect of loss of privacy, but that on theoretical grounds they are bound to go astray and result in enormous costs to the economy.

In 1967 the mathematician Benoit Mandelbrot published a trail-blazing article on the question of how long the English coastline really is. A simple question? By no means. On a large-scale map it is possible to measure the coastline easily with compass and rule. But on account of the large scale, many bays and promontories get overlooked. Using the more exact maps of the Royal Geographical Society, it is then possible to take much closer account of the details of the English coast, though admittedly with the result that the coastline becomes significantly longer. If the attempt is made to become still more accurate, by, so to speak, including every bit of shingle and every grain of sand, then the English coastline becomes infinitely long. And another thing: the measurement errors cumulate to the extent that the result becomes non-serious.

Is more exact really more exact?



Source: Own presentation

In mathematical terms, Mandelbrot’s English coastline represents a curve, a single-dimensional object, that approaches a second dimension by virtue of its labyrinthine course. Mandelbrot’s work has been followed by other mathematicians’ investigations of the measurement of three-dimensional objects, such as snowflakes. Measurement down to the molecular level not only makes no contribution to determining the dimensions of the snowflake, but also increases the measurement error to the extent that the measurement no longer has any significance. Every subsequent measurement would produce large deviations. If we now turn to social and economic objects, and not just snowflakes, then here too it may be expected that additional accuracy of measurement will become counterproductive. The flood of information appears to be heading towards infinity while the increase in explanatory power heads towards zero. Shortly after the terror strike on 11 September 2001, we mentioned the danger of “total control”, and this not only with regard to the loss of privacy by the controlled citizens of this world, but also with regard to the unmanageable flood of informa-

tion, that makes relevant results improbable. Mandelbrot's argument from fractal geometry seems to us to confirm this viewpoint in theory, and the blatant failure of the Americans' efforts so far in their War Against Terrorism to confirm it in practice. This obviously will not work.

5. Measurement euphoria as part of economic growth

The state, business and society all undertake great efforts in the interest of prevention in its broadest sense. The intention is clear, and the efforts understandable: there is a wish for protection against all possible future imponderables. Ever more microscopic data are gathered in an attempt to understand the world as such and to make its progress more predictable. An estimate of at least 30 percent for data gathering, measurement and evaluation as a proportion of total economic activity in the western industrial nations is surely no exaggeration. Whole professions, such as auditors or regulatory authorities are wholly occupied with this. If one analyzes one's own daily routine, and also one's activities in the course of a business year, one will easily arrive at a percentage of at least thirty for data gathering, measurement and evaluation.

The result of such labours are business plans whose pseudo-accuracy reaches to the third decimal place, financial analyses with entire data dumps in the appendices, quarterly, and no doubt soon enough monthly reports of book-like dimensions, regulations for business processes with hundreds of articles, data entry forms for all possible and impossible sorts of processes, that require to be filled out at ever-decreasing intervals. Controlling, corporate governance, impact-oriented management for state enterprises, quality management, personnel qualifications and so on, and on and on. The tendency of all these activities is basically the same as that of measuring the coastline of England down to the last grain of sand. *The cost is enormous, the result insignificant.* Detailed knowledge and regulation prevent any view of the big picture, and hinder attempts to control it.

Specifically, for example: with the best of intentions, a quality management system is installed in a hospital to improve the processes and the provision of service. The assumption is that this will enable more and better knowledge of what works well and less well. And the intention is of course to thus enable the hospital management to optimize the processes. Who could have anything against that? In practice however, things often appear significantly less positive.

Nursing staff now concentrate their efforts not on caring for their patients, but on filling out the forms correctly. Doctors are no longer measured by their clinical, let alone their interpersonal skills, but by various ratios, which they then seek to optimize. And the hospital management is no longer to be found in the departments and wards, but is locked away in offices, trying to study and understand all the data that has been gathered. In the end, it is necessary to employ industrial psychologists and mediators, because people no longer speak to one another, but merely exchange data.

In banking, as mentioned above, much hope is put in the introduction of new equity regulations. Under the title of "Basle II", new regulations should enable the more flexible provision by banks of risk-appropriate reserves. Under the "Basle I" agreement, there has so far been a uniform obligation to provide security in the form of bank equity for 8 percent of outstanding loans. The intention to move away from this undifferentiated rate is in itself most worthy and also generally sensible. But: if in future security is to be "risk-appropriate" – and thus less equity required for better debtors and more for less good ones – this presupposes that the individual risks can be defined and – how else could it be? – also measured. Which is why Basle II has grown from its original size as a 30-page set of regulations to a 600-page book – and there is no end in sight for this standardization mania. The implications and the economic cost can already be felt in this case. For, in anticipation of the intended introduction of Basle II in 2006, the big banks have already started to revise their credit portfolios. As part of this effort, debtors are being confronted with a categorization designed using the most objective criteria possible. And naturally enough the banks are trying to implement "risk-appropriate" interest rates for the various categories. This is not in itself wrong. But it may be that the side effects of these efforts will be more deleterious than the originally envisaged objective beneficial. Why?

Firstly, categorization in credit business is in itself problematic. No matter how much data on the debtor are collected and collated, it remains difficult to forecast whether the credit relationship will be successful or not. For the success of this relationship does not depend on the debtor alone. To grant credit (*credere* in English means to believe. It is derived from *cor dare* – to give one's heart) is to initiate a two-sided relationship, which should ideally be characterized by mutual trust. The attempt to categorize debtors

by objective criteria is thus about as useless as trying to assess all women – but women only, not men as well – on their suitability for marriage and then to construct risk categories regarding the future probability of divorce. This is absurd.

Secondly, categorization by the most objective criteria possible provides an opportunity for those responsible for credit decisions to hide behind a mountain of data. The final, necessarily subjective, decision is embellished with pseudo-exact data, bulky, perfectly designed documentation, additionally approved by some auditor or controller, ensures that the decision becomes unassailable. This process is known by the unattractive but accurate description of “covering one’s ass” a determination to protect oneself against any possible accusation of having made a wrong assessment or a wrong decision.

Nurses, chief physicians, hospital managers, banks’ credit officers, their superiors, the auditors, the supervisory authorities – they are all driven by the need to cover their asses. For this purpose, they gather data, they measure and compile all sorts of possible and impossible information, present the information in ever-new ways, demonstrate just how important these activities are – and in the end have less and less time for their own actual jobs. What applies for hospitals and banks also applies more generally for the state, the economy and society. More data, more details, more and more information – are we ultimately any the wiser, or are we caught up in a gigantic illusion? And are we perhaps sacrificing a significant portion of our growth potential to this illusion?

6. The denial of uncertainty

Prevention should protect us from future crises and catastrophes. The need here is, as already mentioned, understandable, and the efforts are worthy, and at least to some extent, undoubtedly promising. There are, however, two big “buts”. Firstly the cost could exceed the advantages by far, and secondly, there is a danger of achieving exactly the opposite. Why? Because behind the idea of prevention lurks a dangerous credulity. The illusion consists in believing that because of prevention there can be no more crises and catastrophes in the future. Nothing could be more wrong.

Every human activity is characterized by uncertainty. Whether it is running a hospital or dealing with credit customers; whether it is managing a business like Enron or formulating the security policy for a state authority: there is no certainty. The possibility of making a mistake dogs our

every step. The possibility that, by pure chance, everything might turn out quite differently also dogs our every step. There is no certainty. This is because we will never be able to know everything. The information compilation mania under which we increasingly suffer basically tries to overcome this lack of knowledge. Rightly so! But, as we hope we have shown, additional data gathering and measurement, additional objectivization and evaluation, not only do not improve the state of our knowledge, but may well significantly disimprove it.

The insight that, *knowing basically very little and understanding still less*, we must come to terms with the fact that we will always in future be surprised by either entirely or partially unexpected developments has extremely far-reaching implications for our own activities – for example, as an investor in the financial markets, characterized as they are by probabilities, not certainties. Nothing against the industrious, ant-like activities of the financial analysts, nothing against the ever so well documented strategy meetings, nothing against the ever thicker publications in which past investment activity is explained and partially excused (this is known as a “performance review” and contains individual elements labelled with obsessive detail “performance attribution”). But there is no escape from the disagreeable insight that there can be no certainty in this business, no matter how high the mountains of paperwork. And because we are dealing with probabilities, and therefore developments may occur that are unwelcome, we need to ensure that any such do not bring us right to the edge of ruin. And so, in consequence, we may keep a sufficient reserve to hand, or invest only funds that we really do not need in such notoriously high-risk investments as stocks. These are simple decisions, that do not need mountains of paperwork. The paper is just there to cover the asses of the consultants, who are unwilling to take any responsibility for decisions.

The abandonment of an attitude of denial with regard to uncertainty and unwelcome developments would naturally stand things on their heads, particularly in the state sector. Here, it is not just the estimated 30 percent of activity that is devoted to data gathering, measurement, compilation and control, but far, far more. There is no department that does not attempt to provide elegant justification of its activities by such means. But it is the overflowing of the state into what is really the domain of private business, areas where production is required, and not just administration, which makes the impact of this

system designed to achieve “certainty” and cover asses so particularly devastating. And when – how else could it be? – things still go wrong, then everyone can seek refuge behind the carefully gathered piles of data. Because the system is designed practically exclusively to cover asses, it is particularly resistant to early warnings of disasters to come. This is why bridges are built in ridiculously unsuitable places, the costs of tunnels get completely out of control, or capital-destroying airlines get supported.

The classic tasks of the state were conceived differently, and so also differently organized. The fire brigade was there because it was recognized that there was a possibility of fire, and it was not enough to rely on preventive measures. The police force was created in the knowledge that there would always be citizens who would behave in a fashion that necessitated the application of force by the state. The army had the task of ensuring internal and external security in the – fairly unlikely – event of a serious threat. Civil defence had the task of clearing up in the event of a catastrophe – the occurrence of which could be assigned a certain probability. The central bank was responsible for ensuring the convertibility of the national currency even under extreme circumstances, by holding sufficient reserves. But today, all these important tasks, based on probabilities, make up only a fraction of the total activities of the state.

The repression of probability, the refusal to come to terms with the possible occurrence of crises and catastrophes, the construction of a gigantic illusion of greater security through more data gathering and more measurement is one of the megatrends of our time. It does not only lead us astray. Its costs are a burden that hampers the development of our economy and our society. This cancer has already largely colonized the state structures, and now threatens to take hold of the economies of the western industrial nations, by means of ever new regulations, more and more consulting and controlling activities, and a corporate culture that sets certainty and pseudo-accuracy above the readiness to take decisions and be aware of risks. People believe that they have a grasp on everything, but they will one day realize that they themselves are in the grasp of an invasive and paralyzing monster.

7. Counterstrategies

These are admittedly not particularly uplifting thoughts for the year’s end. Indeed, there is no early end in sight for this megatrend of “wanting to have everything under control”. On the con-

trary, the USA continually tries to eradicate actual or supposed terrorist centres, the OECD attempts for the umpteenth time to compel the exchange of information on tax issues, all possibly conceivable sorts of committees rotate between Brussels, London and New York, for the better regulation of whatever, the auditors overwhelm us with ever new proposals about what else needs to be brought under control. And what of us ourselves?

Are we, as investors or their advisers, ready to renounce ever more detailed knowledge, new lists and new key indicators? Are we prepared to regard the coastline of England at a scale of 1:1,000,000 as relevant for our purposes, and to leave out of consideration the mussels on the reefs before Cardiff? Are we prepared to accept that crises and catastrophes will occur in the future? That the funds we have invested are *at risk*?

There is a causal relationship between risk and return. Any investment strategy that attempts to avoid this relationship by concealing it behind mountains of paper is doomed to failure. The avoidance of such illusions is the key to success in investing. Is this dangerous? Basically yes, but specifically and at the moment, rather not. For the fact that the world, and the financial markets in particular, have had matters anything other than “under control” for the last couple of years, that crises and catastrophes have indeed occurred, can also be interpreted positively. Under the impact of these events the markets at present should be fairly devoid of illusions, and this naturally tends to reduce the so-called “downside risk”.

Illusionary conditions are not sustainable; they are put an end to by crises. And this will also happen to the data gathering and measurement mania of our times. It will soon enough become clear that the previous strategy against terrorism is not proving effective. The crisis, which will hopefully not turn into a catastrophe, is already manifest in this area. There will have to be agreement on new concepts. Perhaps it will be a matter of looking at the way the human body reacts to infection. And of adopting the T-killer cell principle, rather than broadband chemotherapy via total control.

There is also a need within the private sector for remedial measures against the idea of “wanting to have everything under control” by means of trying to know and control everything. Business must be profitable, and with astronomical audi-

tors' bills and absurd personnel costs for the controllers of the controllers, and with the paralyzing effect of "ass-covering" at every level, this will not be possible *à la longue*. Companies that avoid or constrain this type of corporate culture will be more successful than the others. The same will be true of those countries that adopt a common-sense approach and a wise and generous regulatory framework. The battle over attractive conditions has just begun.

There remain the state structures. Will the miserable financial state of most national budgets put an end to the mania for data flows and data controls? Or do dinosaurs die differently? Ulti-

mately, this is a question of freedom. The American economist Milton Friedman spoke out on this subject in an interview with *Weltwoche* on 17 February 1994:

"...I am optimistic that people everywhere will find ways to get round regulation by the state. If freedom is still to be saved at all, then only through the underground economies, through black markets, through the informal, shadow economy."

No further comment is required.

KH, 1.12.2003