Investment Commentary No. 210 of September 7, 2001

The need for genuine impulses

1. Patience put to a test

For at least a year, the investor has had to put up with declining stock prices and cope with fragile, illiquid markets. What initially, that is since about mid-March of 2000, looked like the bursting of a speculative bubble in the technology sector and could not actually surprise the sober observer, has turned into a comprehensive slide. Blue chips that were deemed "safe" are suffering under the market conditions just as hard as the notoriously volatile issues. Indeed, it is rather difficult these days to identify stocks that have not yet been caught in the wheels of a pronounced downturn, and - if so – might they be next?

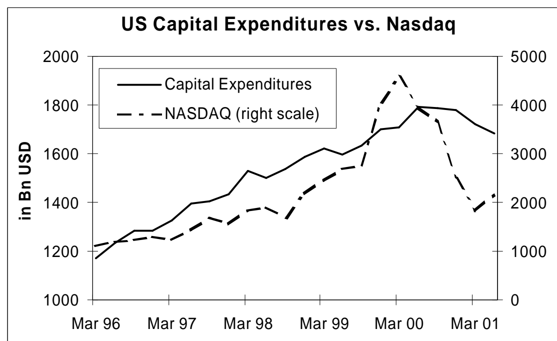
Without straining the trivial notion that the times we live in are the toughest, it is necessary to illustrate the high degree of helplessness pervading current assessments of the situation. Forecasts are turning into worthless scrap paper much faster than in times when more or less everything used to trend upward in rather linear fashion. Official organizations, such as the OECD and the EU, for example, until recently still projected growth rates of two to three percent for Europe's major industrialized countries, while the latest statistics already indicate that Germany will be hard pressed to attain real growth of more than one percent for the current year. A similar impotence is in evidence with regard to the equity markets. While some participants point to the drastic downturns in an attempt to conjure up an early and meaningful rebound, others focus on the continued high valuations in the face of shrunken earnings. What on earth should the poor investor think of such expert wisdom?

In this issue of the Investment Commentary, we are trying to bring a little structure into the thinking relating to both economic development and prospects for the financial markets. Our objective is to refrain from simply adding a further opinion to the great diversity of views, but also to discard a couple of undoubtedly misleading interpretations. The following example shows that this is necessary. As early as last March (Investment Commentary No. 207), we emphasized that the drop in capital expenditures in the USA had only little to do with interest rates. In the meantime, events have born out this point of view. Expert opinions still based on Keynesian stimulating miracles should no longer be taken into consideration, we believe. This would eliminate about 75% of the current ineptitude. It might suffice for a start.

2. A structured appraisal

Every halfway decent analysis of a situation must begin with a clear analysis of the fundamental starting position. Because if one does not know where one stands and possibly not even why, it will not be simple to determine the course. In the above-mentioned Investment Commentary, we referred to the broad trends of the world economy (mega-trends) of the 1990s. We will recapitulate them here briefly. As a result of geopolitical changes, (1) the production factor land and the production factor labor experienced a strong expansion in real terms. Practically at the same time, (2) modern communication technology began to lower information and transaction costs in real terms. This created new markets, i.e. allocation mechanisms, where previously nothing was exchanged, or at the most through channels that were very inefficient and often dominated by marketing cartels. (3) Knowledge (in the most comprehensive sense of the term) was better distributed throughout the world, thanks to the stupendous success of the Internet, and has since been available to the world economy in a myriad of ways. These real changes were (4) accompanied by an extremely generous money supply that lasted for almost ten years. Low interest rates and a sustained retreat of the inflation peril were very favorable consequences for economic growth. Notably in the USA, but also in Europe and the rest of the industrialized world, productivity could be raised significantly.

Increases in productivity are closely linked with capital expenditures. Without the latter, work processes could not be made more efficient and the output per unit of time could not be raised. The last five years of the past century, then, were characterized by an unparalleled capital investment boom.



Source: Bloomberg, own presentation

Even then, but much more intensively today, the question naturally arises why this capital investment phase could not have taken place in a calmer and more selective way more in tune with the economy and the equity markets (see the close correlation between the growth in capital expenditures and the movement of the Nasdaq depicted in the above chart!). How was it possible that literally half the world let itself be talked into a boom, only to realize in a state of predictable disillusionment that most of it was just noise and smoke.

The accusation of irrationality has been leveled time and again. It is currently more or less regarded as a standard explanation for everything that has happened in the world economy and the market over the past three years. “Irrationality” as a basis for an explanation, though, is tantamount with intellectual capitulation, no category with which the Commentary wishes to be identified.

3. The absurd horse race

At the peak of the Nasdaq boom and the powerful investment wave in the technology sector and in private equity of all sorts, we selected an example from nature as an aid to explain that the overproduction of options is by no means an irrational process but a strategy that frequently occurs in nature and is designed to ensure the survival under uncertain conditions. The use of the heading “War of the sperms” created quite a bit of furor among our readers. We predicted two things, namely (1) only few of them will ultimately survive, and (2) the average returns normalize over time, i.e. they can rise only slightly above the return of an other investment bearing a corresponding risk. Therefore, we recommended the widest possible diversification, as in the best of circumstances it is impossible to discern (and still is not today) which “sperm” will prevail in the face of the immense technological possibilities.

Today, we might merely add that the process of selection has turned out much more brutal than even we predicted, that it has adversely affected the entire system, and that it unfortunately threatens to continue for a while.

Like every comparison, the sperm story also has its flaws. This is because the sperm can not help that it is one, nor can it decide by itself whether it wishes to participate in the race. The investors of 1999 and 2000, however, were adults endowed with reason. Would they not have been better off to let reason prevail and call off the race ahead of time? We don’t think so. In reflecting upon the technology thrust, two conflicting characteristics soon become apparent. For one thing, the participant is confronted with the realization - in fact expectation - that the explosively created diversity as a whole represents progress, and that this actually holds true in specific cases. The second characteristic follows from this, namely that in all of the thousands of other specific cases, this will not hold true. Not every innovation, as intelligently as it might be conceived, proves to be viable. Above all, not all innovations can count on demand. There is no market share in excess of 100% in the book trade, nor will people spend more than 24 hours a day on the Internet.

Borrowing from game theory, we have thought of a second comparison, which might demonstrate the rationality of the capital expenditure boom even better than the sperm story. Let us assume that a horse race is being organized with, say, 20 tracks. These would be separated by walls so that the jockeys could not see each other. Also, the length of the race would not be known. How will the jockeys behave, rationally? They will select full speed from the start, invest as much as possible in reaching the goal, as it were. If they do not, they are almost certain to lose the race.

During the technology boom, the participants did not know much more than these jockeys. One was simply aware that a race was in progress. The length of the track, the chances of the participants, the course of the race, the value of the trophies – all these facts were unknown. In

this way, investing became a compulsive happening, and what looks altogether irrational had good reasons in specific individual cases.

The concept of entrepreneurial investing is linked with an equally romantic as well as false notion. It is far too positive and suggests that entrepreneurial investing has a lot to do with creative activity, innovative enthusiasm, spirit of comradeship, and the like. Far from it, investing is a painful process, interspersed with doubts, sleepless nights and repeatedly recurring recalculations. One invests only because one has to, or because one believes that one has to. This is in fear of missing out on something important, suffering competitive disadvantages or being washed out of the market. The capital investment boom was associated much more closely with such compulsive conduct than with "exuberance," as it has been called oftentimes. The situation of the jockeys at the absurd horse race, as well as understanding the compulsive nature of the investment process, is of great importance for treating the question of when, why and how the next upswing might finally occur.

4. The overcrowded playroom

There is no doubt that the technology revolution at the end of the nineties has multiplied the world's opportunities for further growth. This has resulted in a multi-optionality, which as such has its attractions but also clearly possesses negatives, as every available option calls for decisions that must be made. And such decisions can be exceedingly difficult. How will we make telephone calls in three or five years? As hitherto, only by mobile phone or almost free of charge via the Internet? (If so, incidentally, good night to a couple of highly indebted European telephone companies!). Which direction will medicine take? Will the gene technology breakthrough succeed soon? How will the business of finance be organized in the future? Will the financial adviser be replaced by the computer screen or not? Questions upon questions, thousands of possibilities – to make wrong strategic decisions!

The real exogenous shock of the growth in technology and the investment boom associated with it was followed in the past 12 months by a buyer strike for investment goods that surprised everyone by its succinctness. What one previously believed to be almost compelled to do has been reversed. A private individual does not wish to exchange his office package for the nth time or soon switch his PC to the next version of the operating system. The laptop purchased a year ago is still adequate, and the existing mobile phone should actually be understood first before buying a new one! Private investment in durable consumer goods has flagged.

The behavior of corporations is even more extreme. While in the past, investment applications abounded, there is a gaping void today. Once attained, multi-optionality simply could no longer be mastered. In this respect, we concur with Robert J. Gordon, an American economist portrayed in an August 13 article (No.185) of the Neue Zürcher Zeitung, a leading Zurich daily. He stated that regardless of the expansion of the computing capacities of machines, people have not become smarter or faster. Economic growth can not be more rapid than peoples' nature ultimately permits.

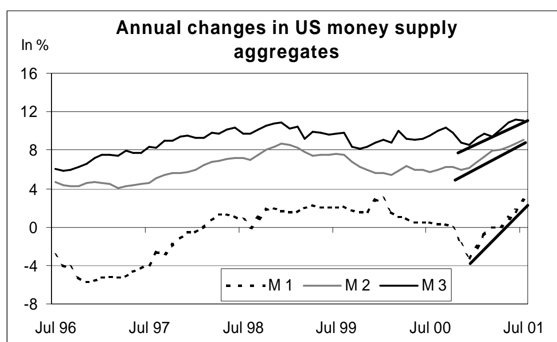
For the time being, managers and consumers alike are sitting in a playroom covered with toys of every conceivable kind and sucking their thumb. They just do not want any more. Multi-optionality can be paralyzing. And because management does not involve only toys but, above all, earning money or at least not wasting too much of it, this apathy is even more pronounced. Many of the new achievements have actually led to drastically reduced margins. If one can (temporarily) rely on the fact that the competition is plagued by the same indifference, one is suddenly no longer willing to hastily waste energy, only to be confronted again by new options. The comparison with the playroom also appears to be quite applicable in this regard. For the time being, the marginal return on incremental capital investment is minor – thumb sucking is more productive.

In other words, the gist of our positioning analysis is that the "guilt" for the malaise, the dramatic decline of capital investment, is attributable to a rather atypical, unique constellation in the real sector of the economy. This also points out implicitly what the current economic crisis is not. It is not a monetary policy induced, cyclical crisis. Moreover, there are few reasons for comparing America with Japan or bringing up the stock market crash of 1929. In economic history, there are occasionally new constellations, which can not simply be treated analogously with earlier experiences, but which are new, unique, extremely interesting – but no less precipitous for these reasons.

5. Interest rates are of little help

In their helplessness, certain finance gurus are attacking even Alan Greenspan, the Federal

Reserve Chairman. Regarded as unassailable to date, this superman among central bankers allegedly raised interest rates too late, thereby busting the speculative Nasdaq bubble too late. Afterwards, they maintain, he was again too late in realizing the weakening of capital investment activity and counteracting the slump by means of rate cuts.



Source: Bloomberg, own presentation

As if he could have done it! Naive feasibility thinking apparently still pervades the statements of even well-known commentators. And this although, most economists agree that the fine tuning of economic aggregates by means of monetary policy measures is not feasible. In the best of circumstances, it ignites a short brushfire, and creates uncertainties for the economic system.

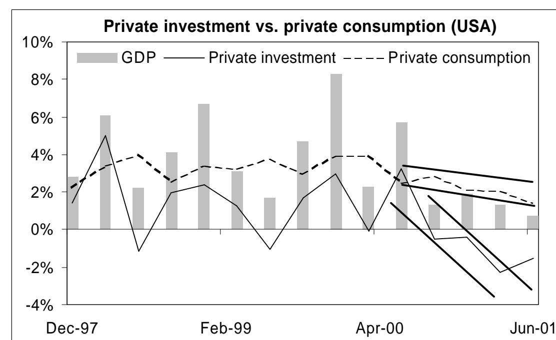
A microeconomic glance at typical companies in the technology sector also underpins the theory that lower interest rates have very little effect. The remarkably low debt levels of many companies is a striking phenomenon. It is not servicing debt that plagues these firms but the lack of incoming orders. If they sustain losses, they will first use up their equity capital.

Table 1: Debt/total capital

Company	Debt/total capital	Note	Company	Debt/total capital	Note
Microsoft	0%	4)	Dell	3.9%	5)
Oracle	2.8%	3)	Nokia	6.5%	1)
Intel	2.9%	4)	Nortel Networks	8.9%	2)
SAP	2.9%	1)	Sun Microsystems	13.5%	4)

Data: Interest bearing capital/total capital calculated on the basis of available corporate figures for 2000/01; Source: Corporate information; footnotes: 1) Figures as of Dec. 31/00; 2) March 31/01; 3) May 31/01; 4) June 30/01; 5) Aug 3/01

Of course, there are sectors of the economy where lower interest rates are entirely welcome. In the United States, despite the above-mentioned decline of capital investment in the technology sector and the related layoffs, neither consumer spending nor private construction activity have been hurt materially.



Source: Bloomberg, own presentation

On the contrary, the demand for private real estate continues at a brisk pace. Property prices bolster the wealth of Americans whose equity investments have been clobbered. In this manner, the destruction of assets has been kept within bounds to date. Accordingly, the many Cassandra calls regarding the wealth effect of a bear market on consumer spending have been inaccurate. Also, it is amazing how little the unemployment rate has changed despite the layoffs in the telecom and technology sectors. Presumably, the highly trained IT specialists are able to find other jobs much more rapidly than the auto workers in the wake of the 1973/74 oil shock.

All told, it is a diffuse and atypical picture, with distinctly negative growth rates in a hitherto so flourishing capital expenditure segment, in contrast with remarkably stable conditions in the "Old Economy." It is unlikely, however, that this situation will be followed in short order by strong impulses for a rebound of GDP growth to, say, three percent in real terms. The lately quite generous monetary policy in the United States is not sufficient to make this happen!

6. What about the world economy?

The unique phenomenon of the weakness in capital investment in the USA has come upon a world economy in less than robust state. High unemployment, unevenly distributed growth rates, a top-heavy government sector and isolationist tendencies on the part of the EU are hallmarks of the Old Continent. Reflecting the unfortunate fundamental base arising from thoroughly messed up historical developments of the 20th century, European politics have priority over economic considerations. Job creation, start-ups, innovation – in Europe, these are the responsibility of the public sector. As a result, Europe markedly trails the USA in this respect.

The European economy of recent years has been characterized by strong growth in certain

small EU nations, but anemic or negative growth in other countries much more relevant in terms of their economic importance, such as Germany, Italy and the Netherlands. Following the 1998 decline, the German economy in particular benefited from a resurgence of export activity, whereas other sectors, such as construction, which is so important for Germany, has been in the doldrums for years. Germany's domestic economy has come to feel the drawbacks of the European Central Bank's (ECB) entirely Europe oriented and relatively restrictive monetary policy for the first time. Gathering clouds on the inflation horizon and a dismal performance by the new currency until recently left the ECB no choice but to maintain interest rates at a comparatively high level.

The few growth estimates that are below the consensus are now becoming reality. As mentioned earlier, Germany may be lucky if it achieves a growth rate of one percent, in real terms, for the current year. For the Euro zone as a whole, about 1.5% is anticipated. As in the United States, the telecom and technology sectors are hurt most severely. In contrast with America, however, consumer spending and construction are also lacking impulses.

Japan is entering its second decade of recession. Those who ever believed that economic difficulties could engender political reforms have been repudiated in every way by the example of Nippon. Four years ago (Investment Commentary No. 184 of December 1997), we cited eight areas in Japan that would have to undergo profound changes in order to help the world's third largest economy to resume its growth. In the meantime, nothing has happened, in essence, except maybe that some consciousness, in fact unanimity, has developed regarding the need for reforms. Whether the new Koizumi government has the strength to break up the structures, whether any government actually will ever be able to do so in the current system, remains in doubt.

In view of the uncertain outlook for Japan, the prospect for growth in the Pacific area continues to be limited, particularly since the economic conditions in countries such as Korea, Taiwan, Indonesia and China are less than ideal. Therefore, no significant impulses can be expected from this region.

While this is a rather bleak economic picture, it might be added that - in contrast with 1998 – at least no unilateral and excessive risk positions of the global financial system are in evidence in the world's problem regions. Apparently, the big speculators are no longer counting on the IMF as a rescue of last resort. In the aftermath of the negative experiences of 1998, the "moral hazard" problems have been staved off, for the time being.

7. How much earnings growth will be possible?

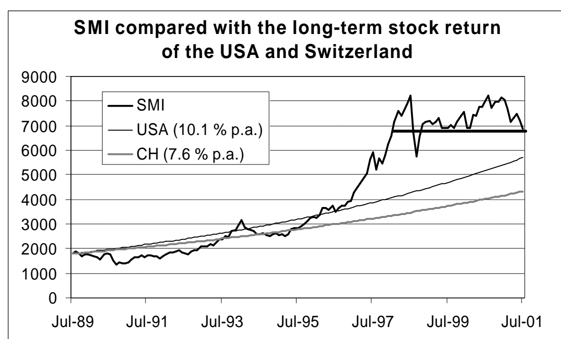
The present situation of the world economy may best be summarized as follows: On the negative side, there is the drastic and unique collapse of capital investment activity, notably in the telecom/technology sector, as well as the fragile state of the world's principal economic regions. On the other hand, however, there is a global financial system that is largely free of tension – a financial system, by the way, which has absorbed the bear market of recent months with astonishing ease. In view of the losses in market value, in fact, banking failures might have occurred, too! This favorable view of the global financial system also applies to monetary policy. No serious money supply problems can be discerned anywhere. An inflation of the whole system remains the greatest peril for the world economy, but this continues to be unlikely. An offset is provided by the American economy with its amazingly persistent consumption, construction and labor market statistics. Moreover, the latest inflation data point to a marked easing of inflationary pressures.

In the context of this overall assessment, the question arises what this means for the battered stock markets and the investors plagued by losses. Have the stock markets become "cheap"? Or are they still "expensive" due to the appreciably weakened outlook for corporate earnings? An explanation why the terms "cheap" and "expensive" are in quotation marks is in order. The reason lies in the need to continue to keep this Commentary economically correct. The question of the "right" price has kept the science of economics busy for centuries. The result of the discussion is undisputed today. In summary, there can be no objectively correct price. Accordingly, the qualification of a market as undervalued ("cheap") or overvalued ("expensive") also makes little sense.

The following chart demonstrates the problems involved in describing a market valuation as low or high. The Swiss Market Index (SMI) in the past 12 years shows an increase of about 11 percent a year. Measured by long-term averages (10.1% p.a. for the USA since 1900, 7.6% p.a. for Switzerland since 1911), this is a lot, which could mean that the Swiss stock market is expensive. Yet, if one observes the period from

early 1998 onward, it is apparent that during this interval, there was no money to be made on the Swiss market at all! Almost four years without any gain – in statistical terms, almost an exceptional situation. The Swiss stock market is cheap!

This exercise is leading us nowhere. A more sensible approach, in our opinion, points in the direction of comparing one's own expectations with those of the market. Every stock price (as any other price, for that matter) embodies a high degree of economic information. If it is known, for example, at which cost a company must finance its capital, it can be calculated, among other things, which growth this company needs to experience to justify a certain stock price. This naturally assumes that one acknowledges that there is a close connection between future free cash flow generation and future share prices.



Source: Bloomberg, Pictet, own presentation

For the purpose of the following table, we assume that the principal objective is to justify the current stock price (since we want to know whether it is "reasonably priced" or "expensive"...). How much growth in free cash flow would these Swiss firms need to generate in the next few years to justify the current stock price? And how is this required growth measured against the long-term growth of the companies concerned?

Do the expectations for the companies implied by the market price correspond with what can be reasonably expected by a sector in the next couple of years, or with our own expectations for the economy for the period ahead ? These kinds of questions lead either to a correction of our assessment of the future free cash flows or, in the extreme case, actually to the conclusion that the expectations of the marketmay be unrealistic. At our bank, we have analyzed in recent months sector by sector, and company by company, the implicit cash flow expectations of current stock prices. The quintessence of this extensive research is that, in many cases, even at current stock price levels, partly respectable increases in cash flow will be required to justify an even moderate gain in the stock price. (Maintaining stock prices at current levels as suggested in the table for reasons of clarity would not be acceptable to the investor by any means; considering the risk assumed, he must be compensated with an adequate return.)

Table 2: What would be needed to maintain the stock prices?

Company	Required annual FCF Growth 01-05	Trend growth FCF 95 - 00	
ABB	15.8%	-34.7%	1)
Ciba SC	-10.5%	125.9%	2)
Clariant	7.8%	0.7%	3)
Ems-Chemie	15.1%	-13.4%	
Givaudan	-16.4%	3.5%	2)
Holcim	11.7%	25.7%	
Kudelski	84.2%	64.0%	3)
Lonza	15.1%	10.3%	4)
Nestlé	9.8%	33.4%	
Novartis	6.5%	44.4%	
Richemont	24.9%	11.8%	
Roche	11.4%	-21.2%	5)
Serono	42.0%	120.6%	2)
Swatch Group	3.6%	27.2%	
Syngenta	-5.0%	N.A.	

FCF = Free Cash Flow (as per Bloomberg); as a basis for calculating the required FCF growth, the FCF of the year 2000 and the stock price of Aug. 23, 2001 were used; the long-term growth from 2005 onward was assumed at 3.4% for all companies (corresponds to the expected nominal growth of world GDP; as discount factor, 8.6% was used for all companies; the trend growth of FCF 95-00 is based on a regression of the annual FCF figures of these years. Data source: Bloomberg, own calculations. Footnotes: (1) Trend growth 98-00; (2) 97-00; (3) 96-00; (4) 99-00; (5) 11.4% FCF growth incl. non-operating expenses and income.

Based on these and similar considerations, it would now be possible to arrive at a very narrow selection of equity investments. We have however limited ourselves to weed out the most unrealistic growth expectations. Thus, we have focused on the telecommunications sector, which we find especially alarming. If in this sector annual free cash flow increases of 30% or more must be generated to maintain the current stock prices, we dare to go on a limb in analytical terms and call the valuations too high for our taste - and this despite the slides of recent months. How on earth is it possible to generate more and more money if everything points to the fact that margins continue to shrink? Also, can people spend more than 24 hours a day on the telephone?

In the other sectors, conditions are not nearly as clear-cut as in telecommunications. Earnings and cash flow expectations are also subject to changes in the general outlook of the economy. This particularly applies to the future development of technology. Excessive selectivity because projections of future growth appear ludicrous is more dangerous than a balanced diversification strategy. Such a strategy a priori assumes an occasional slip-up but also offers some assurance that investors will at least partially participate if growth surprisingly picks up at some point.

8. Scolding the financial analysts

A brief digression is in order. A couple of months ago, when discussing aspects of corporate governance, we used the comparison of a bear market with the yearly sinking of the water level of the Grachts in Dutch cities - rusty bicycles float up to the surface. The number of executive floors which have not been shaken up in the past few months because of a dismal performance has diminished further. Nevertheless, it may be noted that desperate attempts at dressing up poor results continue to be made.

The related fashion trend inter alia calls for special write-offs and restructuring costs, or focus on optimizing a single but not particularly relevant financial ratio. Following years of overemphasizing the importance of return on equity (ROE), it is currently EBITDA, i.e. earnings before interest, taxes, depreciation and amortization. It is admittedly a practical indicator, because it permits a comparison of the operating results of different companies in a simple manner, that is under extensive exclusion of specific company characteristics (with the aim of concluding that a stock is "cheap or "expensive"). An essential question pertaining to these specific company characteristics, however, is how capital investments are treated, and to which extent the firm is in a position to finance them. Moreover, only by taking depreciation into account is it possible to judge whether or not the capital investment policy pays off.

Of course, there are other tricks for dressing up financial results, and new ones are being invented continually. As is well known, the boom of the nineties permitted salaries in some areas to shoot up exorbitantly. In part with the aim of providing incentives, but beyond this mainly for dressing up reported results, companies began to pay a proportion of the salaries in the form of stock options. Applied systematically and over time, a dilution of shareholders' equity through the exercise of options naturally is tantamount with a charge that does not materially differ from ordinary personnel expenses. These ought to be booked and reported as such, which would make many results look less brilliant. The community of financial analysts decidedly objects too seldom to these and certain other practices.

On the contrary, the rusty bicycles from the world of corporate management are now being complemented by those from the financial analyst profession. In the past few months, some very questionable practices associated with this profession have floated to the surface, and they are now under criminal investigation. However, the criticism must go further. Scrutiny discloses a systematic partiality on the part of financial analysts toward the companies and top management they cover in their research. One may try to interpret this psychologically. Far more obvious to us is the explanation that the great majority of financial analysts are part of a (marketing) system and production line for the investment banking business, and as such is under at least implicit performance pressure. In summary, a healthy portion of skepticism is needed. End of digression.

9. A fresh start – but how?

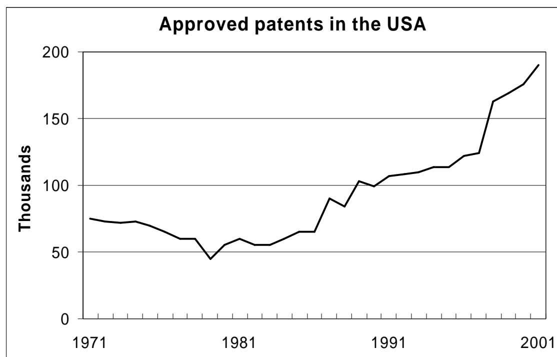
Our analysis of the world economic situation, with the negative factors outweighing the positive ones on a 1.5 to 1 basis, may be complemented with the following qualification: As far as the stock market is concerned, good reasons can be furnished for the "cheap" as well as the "expensive" alternative, to the extent that these categories may be deemed relevant. It is readily apparent, though, that there is scant agreement with regard to a "reasonable" valuation, because far too frequently, valuation differences of several percentage points develop within a few hours of a trading session even in the case of major blue chips. This illustrates very different points of view and sentiments as to the outlook for future growth.

Our interpretation of the past investment boom, which spurred growth expectations to such a degree, as well the drop in demand for investment goods, is predicated on considerations for the real state of the economy and technology. In general, the reasoning is much more often based on endogenous cyclical views.

If one follows our reasoning, it is rather unlikely that the economy will soon resume its former pace of growth "by itself," i.e. cyclically. From our vantage point, powerful and real impulses are needed to rekindle the belief that new in-

vestment is required again. Will such impulses also emanate from the technology sector? Possibly. The next generation of Internet technology is essentially ready, and it would be naive to believe that the immense advantages of this type of communication would simply become history and worthless as of 2001. Perhaps the next strong real impulse will come from the area of biotechnology. Or the "old economy" will suddenly be in a position to make use of the "new" one and make money out of it.

The world will go on after 2001. The fact that the spirit of inovation is still at work, and has actually been given a boost of late, is born out dramatically by the patents applied for in the United States. As investors, we have no choice but to be with it and stay with it, as it is entirely uncertain where the next boom will take place and, above all, when.



Source: Patent & Trademark Office, Business Week 08/01; own presentation

KH, September 7, 2001