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Cyclical fluctuations and crises in the US economy, 1929–2008

Additional details to the crisis anatomy

Is there a universal attitude to or description of economic crises and capital- and money market processes (as well as, certainly, of the ways out of the crises) that could be used in such a gross situation, first in the interpretation of the situation and then in looking for the right solutions? Well, the answer is rather distressing: such reliable or at least tested, widely used and of course sufficiently general descriptions – let us point out in the beginning – are not available. Lacking a blissful theory, we have historical retrospection to provide several positively good analogies, however. It is some of these latter that are offered by this study, which attempts to place the performance, cyclical-ity and share markets of the US economy in a long enough historical perspective. Examining almost 70 years of the history of the US economy we have found that the struggles out of the crises and the revivals of growth have become increasingly efficient from an economic historical point of view, taking increasingly shorter time periods. The ability of learning from the stock exchange crises has been also improving and institutional adaptation, too, has been apparent. In previous difficult periods also, the return of optimism has taken increasingly shorter time and this historically improved learning ability characteristic of the US markets can by all means give hope amidst the current crisis as well. Considering the above, the study argues that, in 2009, there is a

good chance for the return of the American economy – and, together with it, of the capital and money markets – to the normal course as fast as within 3–4 quarters.

INTRODUCTION

By the last third of the twentieth century and especially by its last decade, the new, globalised capital market, capital flow and currency processes of the world economy got in the focus of the attention of international investors, institutions and governments. In the first eight years of the new millennium, world economic growth was to an even greater extent affected by the further growing volume of capital flowing through international channels and by the speed of money and information flow. The special role of international money and capital movement and of adequate currency exchange rates became apparent in the case of both the leading states of the world economy and of smaller national economies. At the same time, the nature and number of actual market mechanisms related to financial globalisation is still a largely unexplored area. Related research has once again flared up old, theoretical debates – evaluating the international mobility of capital and the world economic functions of stock

exchanges and currency markets in general – that kept glowing after the collapse of the Bretton Woods system in 1971 for a long time still (Eichengreen, 1998; Krugman – Obstfeld, 2003; for Hungarian references, see Erdős, 1997, pp. 87–92). A deep recession, what is more, a world economic crisis was foreshadowed by the general international stock exchange decline of 1997–1998 already, at least in a more easily identifiable, retrospective perspective. The latest global financial crisis that started in autumn 2007 and became a full-blown crisis by autumn 2008, dragging almost all the developed world into recession, has in size only approximated the 1929 crisis since (up to the beginning of 2009 at least) both real GDP drop and the levels of unemployment have fallen short of the 1929 levels. In the light of the dramatic developments that have taken place so far, however, it is absolutely understandable that the disputes questioning the equality of macroeconomics – as a science describing market behaviour precisely and thus in a predictable way – with other sciences have also revived once again (Borio, 2008; Soros, 1996; 2008).

One thing is for certain, however: the serious financial crisis that accelerated in the second half of 2008 and grew to a world economic size in every respect, urges a more profound understanding of international money processes. At all levels. It needs to bring forth a willingness to evaluate the situation and change attitude by all, including governments, central and commercial banks, corporations as well as individuals. Yet, however incredible this may sound, it is not money or more money that is to guarantee the permanent solution of the financial crisis: merely more money is no means to increase either production or employment. At the macro level, money is neutral: it does not produce either goods or wealth. In itself it does not. Only well-disciplined human effort – adequately combined with natural resources – is able to produce goods and,

through these, wealth. It is of utmost importance to remind now of this “classic money” neutrality theory!¹ It is an effort in vain to look for a single cause or a single person responsible for the crisis, while it is a harsh exaggeration to blame it on the bases of global capitalism. It is all the more reasonable to investigate the weaknesses of international financial regulations, saving practices, taxation and foreign exchange trade, on the other hand. This is not the end of the world and there is no general world economic crisis affecting production or employment, either, but there is a situation of crisis that can be best identified with an international liquidity and confidence crisis. This latter is a much milder category and is easier to treat as well. One thing can be taken for granted: in the world economy, concerning finances at least, a new era has begun in which the most affected parties, i.e. banks and their regulatory authorities as well as the governments and banks of issue of advanced countries have tried at last, with considerable delay, to channel the processes that had broken loose from the national-state regulatory frameworks back into their right courses. It is only in part, however, that we can now have a feeling of *déjà vu* seeing the huge losses (worth at least 10 years of total Hungarian GDP) that evaporated at money and capital markets and that were apparent and written off immediately, and the sinking and nationalisation of huge banks and investment houses. What we face now is an absolutely new phenomenon in a number of respects. Although many of the experts closely familiar with the logic of bank systems and money markets claim that the strike of the lightning was only a question of time, the serious situation that has developed was, in my opinion, not to be predicted nevertheless. Neither the extent nor the time length of these processes could be precisely foreseen. This is true even if the logic of the development of crisis events, i.e. the road to the crisis, was familiar from earlier

times. Retrospective wisdom is not worth much in this case, either: the speed by which the crisis process spread and the size of the devastation it has globally made, have been beyond all imagination.

One of the relevant thinking frameworks to start with could be looked for under the macro-economic guidelines referring to cyclicity. Thus here in the introduction, a short review shall be provided of some of the widely used propositions, with their actual relevance to the current situation of crisis discussed. It should be noted, however, that this study is not of a theoretical conception; it rather wishes to collect statistical and economic historical facts, offering additional information to the crisis anatomy. Accordingly, in the next part, some characteristics of the US economic development between 1929 and 2008 shall be surveyed, with the simultaneous presence of cyclicity and stability pointed out. A kind of stock exchange crisis anatomy shall be offered thereafter, collecting the historical experience of capital market recovery and restoration, examining the past of the New York Stock Exchange Indices. The study shall be closed by a summary and conclusions.

Some starting propositions

In what follows, we shall make some starting propositions, i.e. mainstream concept-level statements that share the same macroeconomic starting point or theoretical proposition. Let us quickly add, however, that beyond these proposition-like statements, the actual numerical correlations offering permanent generalisations are not in such accordance by far (Dornbusch – Fischer-Begg, 2004, pp. 526–535). Even less is there a quantitative correlation available that is time resistant and can therefore be proven despite changing conditions, which could also be suitable for making precise pre-

dictions. It is better to point this out in the beginning, with reference to the fact that neither the temporal characteristics of the crisis that has developed by today nor the extent of the recession could be precisely predicted.

TREND AND CYCLE If the question is whether there are coded (i.e. predictable in advance) trends and cycles; in other words, whether there is a permanent economic correlation suitable for prediction – one that could be used also in the case of the most advanced economy in the world, the USA, where there are the most reliable timelines available – or we merely have indicative statistical observations, then the answer is rather the latter. We do have statistical observations that indicate trends but there are no formulas proven to be uniform by economic sciences (i.e. parametric formulas) for the calculation of the actual future length of the trends or the amplitude of the deviations. We do know at the same time – also in Hungary, through the pioneer work of *Tibor Erdős* (Erdős, 1976) – that cyclicity is permanently present in the market economy. In reality, total output and productivity do not develop simultaneously; they grow at a different rather than the same pace. The output trendline is therefore identical with a smooth long-term trendline cleared of short-term fluctuations. Under the definition, the business cycle means the short-term deviation around the trendline.

THE POLITICAL BUSINESS CYCLE Under this concept, governments are able to manipulate the economy, through their spending and their fiscal measures in general, with the purpose of making the impression before an election that the state of the economy is favourable. The government may even launch a new cycle of growth, which may be of good intention but ill-formulated, in the implementation of a stabilisation policy. In the current situation, it can be stated with considerable certainty that the crisis was not related to the American political cycles. [*EIU-(2008)*]

THE LENGTH OF THE CYCLES Given their nature, business cycles may change regarding their length because macroeconomic adaptation to new conditions may be slow in the beginning or because time replacement between present and future may be difficult both at the consumption and at the investment market and is difficult to calculate in the present (the earliest and most persuasive reference on this in Hungarian literature is also by Tibor Erdős, (cf. Erdős, 1976, pp. 114–147). Sometimes there is regularity present in the term of the cycle, sometimes there is not. In the current situation, the aspect of inequality across the cycles may be assigned importance and high significance at the American consumption market, the investment market as well as the credit market.

WHAT IS REFERRED TO AS THE MULTIPLIER ACCELERATOR MODEL shows that investments depend on the profit expected in the present. This concept assumes that the expectations in the present always reflect the level of actual output in the past as well. The accelerator model in itself produces a cycle, too, but this is basically so because it assumes that companies are rather “foolish” ignoring the effect of their own expectations on the cycle itself. Unfortunately, in the case of financial investments, real estate development and particularly in mortgage lending, the suspicion may have frequently arisen that it has all been about the case of “I can see myself only”. Originally, Soros' reflexivity concept is based on a similar argumentation (Soros, 1996; 2008). It is also this invisibility of system-level risks that (Király – Nagy – Szabó, 2008) refer to as well. Output fluctuations are limited by the full capacity constraint from above and the impossibility of negative gross investment from below. Changes in assets cause fluctuations only if the former incorporate planned reduction, i.e. if it is not about suffered asset changes. An asset change is thus usually an effect rather than a cause and is thus not the

reason but the consequence of fluctuation. It is very important to point this out in relation with the current crisis in that the unsold status of either housing or other big consumption items (houses, automobile and household equipment) should be regarded much more a consequence than a reason. On the other hand, as was clear to many, the demand that had developed at the markets in question, which had been perceived as reality by producers, could not be maintained because at a relatively early stage – as was easy to notice in 2006 already – the rate of subprime or insolvent borrowers at the most important product markets rose unproportionately high. (This view is shared, among others, by Elmendorf, 2008; Gramlich, 2007; Krisman, 2007). *The real business cycle* holds that output may only temporarily deviate from the potential, even in the case of antagonistic or cross credit cycles. In the regular case, it is exactly these deviations that make the cycles themselves. It is useful to note that aggregated demand and supply both influence the fluctuation of the cycles. At the US real estate market, both effects were present at the same time, but it was basically about overspending generated by an artificial demand in which financial innovations boosted the assets of sellable products at an undue extent. (Magas, 2008, pp. 996–997). This view is confirmed by (Dyner – Elmendorf – Sichel, 2006; Elmendorf – Dyner – Kohn, 2007; Király – Nagy – Szabó, 2008, p. 614) The latter author trio formulates this the following way: At the US market, “the rise in the losses was directly triggered by a peculiar interference of the interest cycle and the housing price cycle. At the same time, it was the defects of the origination and distribution model that had a determinative role in the development of losses.”

THE INTERNATIONALLY EMBRACING OUTPUT PROCESSES – *due to the high integratedness of the commodities, labour and capital markets of the world* primarily – have made most advanced

countries dependent on their major partners also as regards growth trends. In the advanced world, business cycles develop simultaneously, in correlation. This phenomenon has been explored by literature for quite a long time; we have known about the complexity of the correlation of international economic trends for over two decades (Kenen, 1989, pp. 404–424, Krugman – Obstfeld, 2003, pp. 725–757). Advanced countries and, together with these, the world economy as a whole, rise and sink almost together (with a 2–3 months' difference at the maximum). In this sense, there is nothing new under the sun since for over three decades, the major players of the world economy have cried and laughed together economically. What is relatively new, however, is that financial globalisation has accelerated the spreading of positive and negative effects (Magas, 2007a, pp. 188–212)

It is this world economic cyclicality, partly immanent, still well-known from earlier, i.e. the

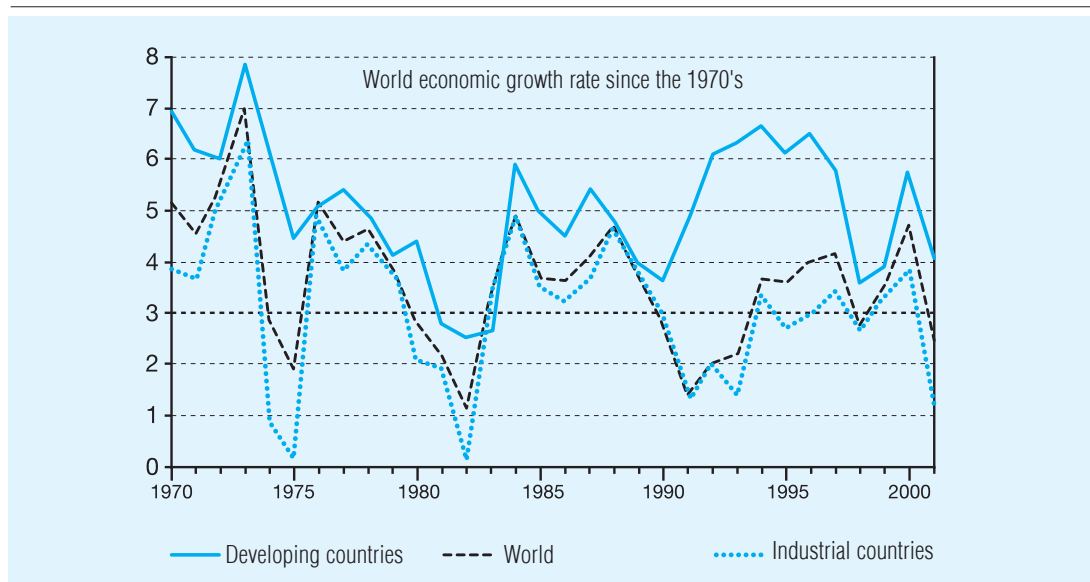
large-scale dependence of the world on the growth rates of advanced countries and, through this, the cyclicality of the other regions of the world economy following industrial countries basically, presented in *Chart 1*.

So these are the starting propositions on the basis of which we should be able to evaluate or identify what well-known or new reasons the general economic recession that unfolded in leading OECD countries in 2008 can be blamed on. The full-scale exploration of this question – let us quickly point out – is still outside the scope of this study, however. Here we have two, more minor objectives.

On the one hand, we wish to present some characteristics of the US economic development in a longer, seventy-year and in a three-decade perspective, looking for general or peculiar momenta or characteristic features that could serve as an explanation for today's crisis processes. So as to make the analysis easier, we shall thus first of all examine the past

Chart 1

**ADVANCED COUNTRIES AND THE WORLD ECONOMY MOSTLY DEVELOPED SIMULTANEOUSLY
GDP GROWTH IN MAIN COUNTRY GROUPS, 1970–2002,
(%)**



Source: IMF WEO April 2002

economic performance of the United States as regards cyclicity and stability and especially considering the historical perspective of the current crisis. It is hardly disputable that the origin of today's problems are also related to some special characteristic features of the American economy: the permanently high demand for outside credit primarily, the extraordinary development level (and overshooting) of credit markets as well as the immanently present cyclicity.

On the other hand, we shall examine the earlier crisis reactions of US capital and money markets in a long enough historical retrospective so as to get a better understanding of the present. Within this, we shall touch upon the peculiar behaviour and the risks of international money and capital markets. We shall come to the conclusion that the uncertainty following from the inner essence of integrated international financial and capital markets can only be moderated by a well-established international regulatory environment pointing towards uniformisation and predictability. This is a realisation that the world came to in autumn 2008 already. If, however, the difficult but much more factual question is asked if the development of the crisis in the macroeconomic processes of the USA could be precisely foreseen, well, then the answer is rather no. Although the accumulation of certain inner and outside tension could be felt (Lansing, 2005), such a major crisis could hardly be pre-

cisely foreseen. Certainly there are always some presentiments and signs pointing towards a crisis, which are especially apparent in retrospect, like one of the statements made by Nobel Laureate Paul Krugman (Krugman, 2003): “*all the major engines of the world economy – the USA, the euro area and Japan – are faltering and the threat of a severe world economic breakdown cannot be ruled out.*”

Although the statement speaks of a possibility rather than a certainty, Krugman must have known something.

Currently, in the beginning of 2009, both IMF and OECD predict a general recession, as *Table 1* reveals, while neither of these institutions forecast a decline, let alone a crisis earlier, before the summer of 2008 (OECD, 2008). The same is admitted by the Bank of England (BoE, 2008).

SOME SPECIAL CHARACTERISTICS OF THE ECONOMIC DEVELOPMENT IN THE USA 1929–2008: CYCLICALITY AND RELATIVE STABILITY

We must begin the analysis with the surprising claim that in a historical perspective that can be called really long – namely between 1929 and 2008 – the US economic development was simultaneously and permanently characterised by stability and cyclicity. As regards the period after WWII, it was a markedly and stably

Table 1

IMF- AND OECD-PREDICTIONS ON THE EXPECTED RATE* OF ECONOMIC GROWTH

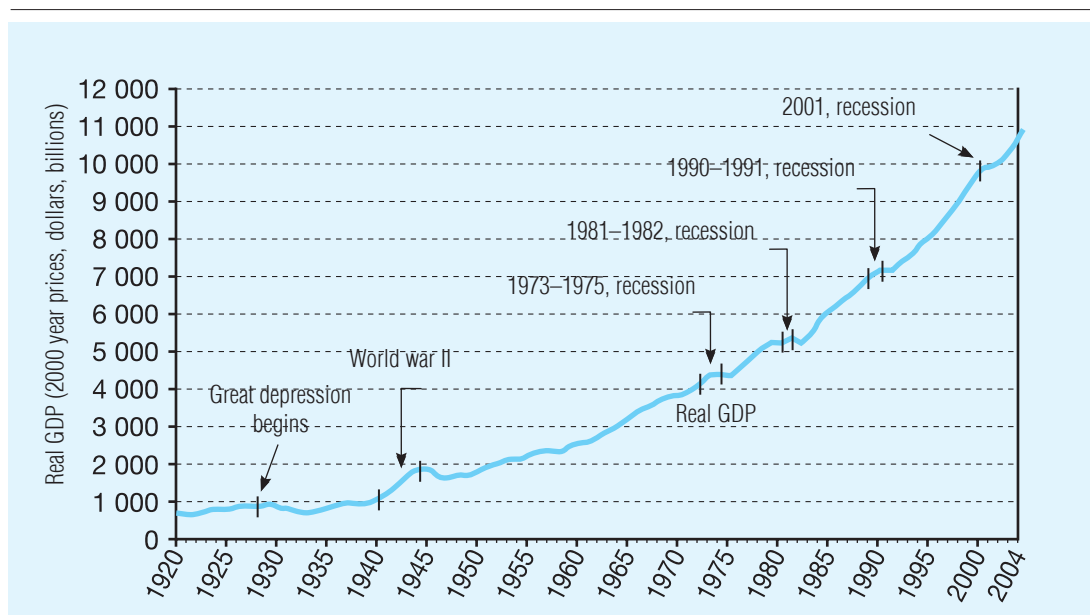
	2008		2009	
	IMF	OECD	IMF	OECD
USA	1.4	0.4	-0.7	-0.9
Eurozone	1.2	1.1	-0.5	-0.5
Japan	0.5	0.5	-0.2	-0.1
World economy	3.7	—	2.2	—

* Status as of November 2008

Source: IMF, OECD

REAL GDP DEVELOPMENT IN THE US ECONOMY AND RECESSIONS, 1920–2004

(USD bn, at standard 2000 year prices)



steep real growth trend (intermittent by short flat terms only) that became determinative (see Chart 2). It was this trend that was broken by the end of 2008. The situation of recession that developed by the beginning of 2009 is – at least considering the historical perspective of the previous seven decades – not as dramatic as many claim. In the seven decades' perspective, the US economy witnessed a positively even performance, at least considering the development of real GDP. With the exception of the Great Depression, the level of real output incorporated in GDP never fell to a permanently low level with a double-digit unemployment rate. Really deep recessions were limited to one or one and a half years only, even at calamitous times like in 1933–1934 as well as after the end of the extraordinary war efforts in 1945–1946.

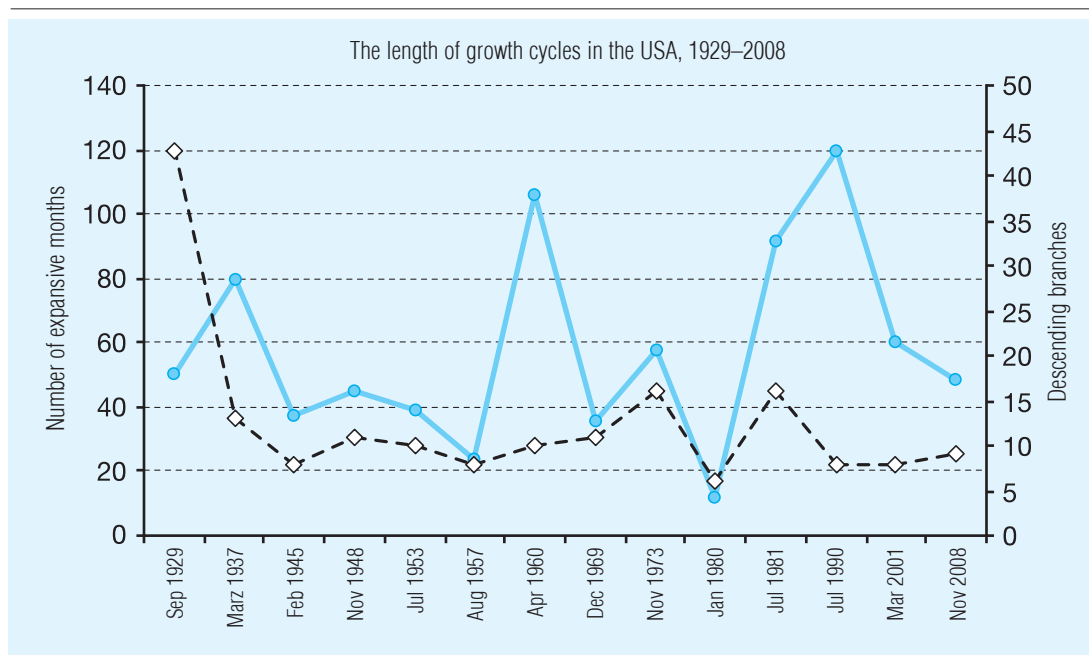
It is clear from Chart 2 that recovery, i.e. the return to earlier levels of output in the real sense was usually realised quite fast, although not always at the same speed by far. In growth, there were flat periods, “developing sideways”,

but the terms characterised by permanently negative GDP were really short and got increasingly shorter. Cyclicity, however, even though immanent, was permanently and obstinately present even in this basically rising trend. Yet, the fact of an inclination towards output fluctuation from the generally evenly rising output course is only apparent from the further detailed and more refined Chart 3 presenting the length of the actual recessive and expansive cycles.

Chart 3 shows very well that in a retrospective perspective, right back to the Great Depression in 1929, the length of descending, i.e. recessive periods (presented in data set 1, marked on the right of the Chart), measured in months, has clearly shortened towards the present. While the decline lasted for 43 months at the time of the Great Depression (and resulted, at its lowest, in a 24.9 per cent unemployment rate and 29 per cent GDP fall), the recovery that followed, i.e. the period of expansion (see the scale on the left, data set 2) lasted for 50 months already. The recession that start-

Chart 3

THE TIME LENGTH OF THE EXPANSIVE AND RECESSIVE TERMS OF US ECONOMIC GROWTH IN 1929-2008,
(month)



ed in May 1937, on the other hand, lasted for 13 months only and at the lowest of the decline, although there was still very high, 19 per cent unemployment, GDP fall was only 5.5 per cent. The growth period that began in June 1938, in turn, lasted for 80 months already. In the time that has passed since then, the trend has further improved: expansive terms have lasted longer, while recessions have become shorter. Although the contraction triggered by the 1973 oil crisis lasted as long as 16 months, and unemployment was still 8.5 per cent, there was a relatively moderate GDP fall of only 1.1 per cent. It was only the 1981 recession that was serious even by today's measures in that it went on relatively long, for 16 months (bringing about high, 9.7 per cent unemployment, while GDP shrank by 2.1 per cent.) The recovery that unfolded in November 1982 and the following expansive term, on the other hand, last for as long as 92 months already. This record could be outdone by the expansion that

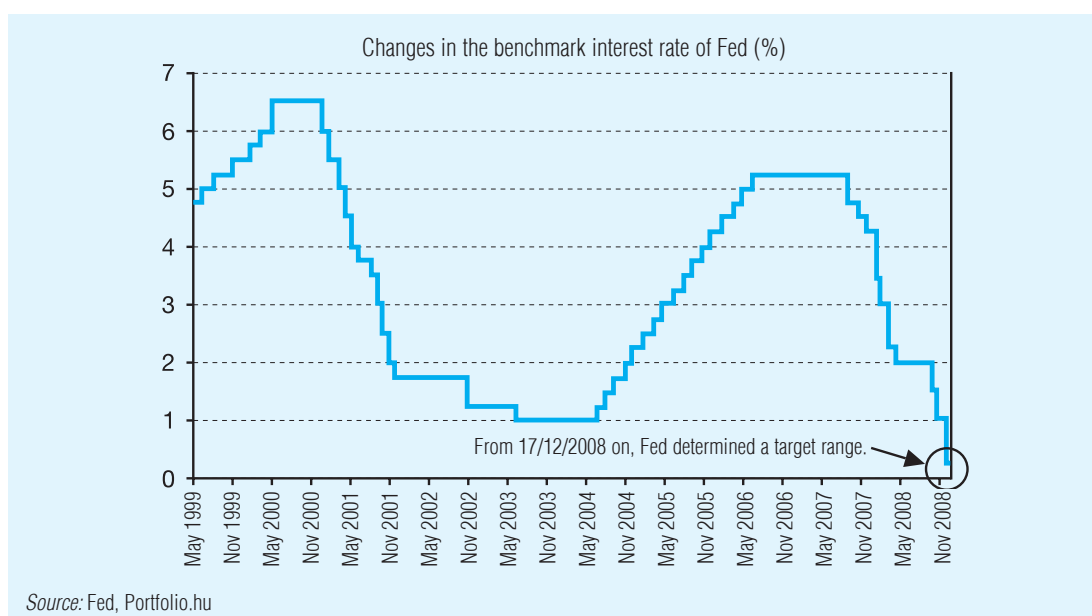
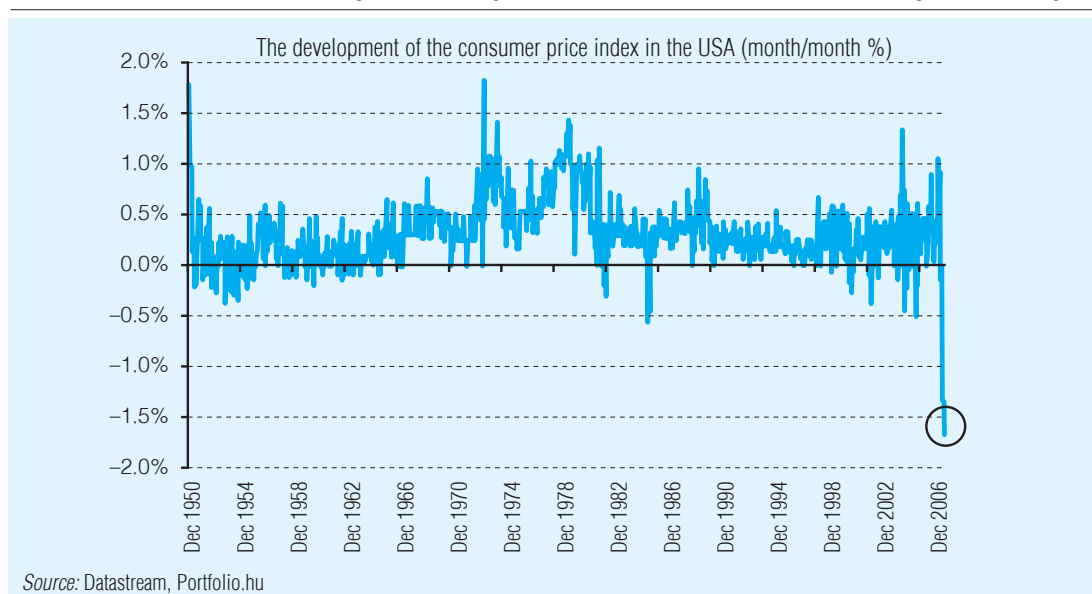
started in March 1991 only, which lasted for round ten years (120 months) and was defeated by the terrorist attack of September 2001 only.

In the light of this historically improving, i.e. shortening recession cycle trend, it seems probable that the economic shrinking that developed in the USA by the beginning of 2009, will not last longer than 3–4 quarters (as is also assumed by Levinson, 2008b, pp. 3–5). On the basis of Chart 2, the marked and permanent presence of cyclicity is hardly disputable, however. This seems to be confirmed by some other, product, labour and money market statistics pointing towards the same direction, which are to be discussed in brief in what follows.

Let us examine *Chart 4*, which shows the development of consumer price index and of interest rates in the periods of 1950–2008 and 1999–2008. Both panels show something “cyclical or rhythmical”, but, in the past 10 years, it is

Chart 4

CONSUMER PRICE-INDEX (1950–2008) AND INTEREST RATES IN THE USA (1999–2008)



especially the movement of interest rates that has revealed the frequent alternation of different macro environments and credit cycles.

If we take the development of the monthly consumer price index as a basis, which measures the cyclical and seasonal pulsation of the economy quite well, although not comprehensively by far, what we can see is that in the

USA, looking back to 1950, there were only three major inflation waves. Of these, in the post WWII period, only two were related to outside effects, i.e. to world economic processes, which were thus (from the point of view of adaptation) dramatic price rises of a novel nature, essentially related to the two oil crises. The stability of the American price level was

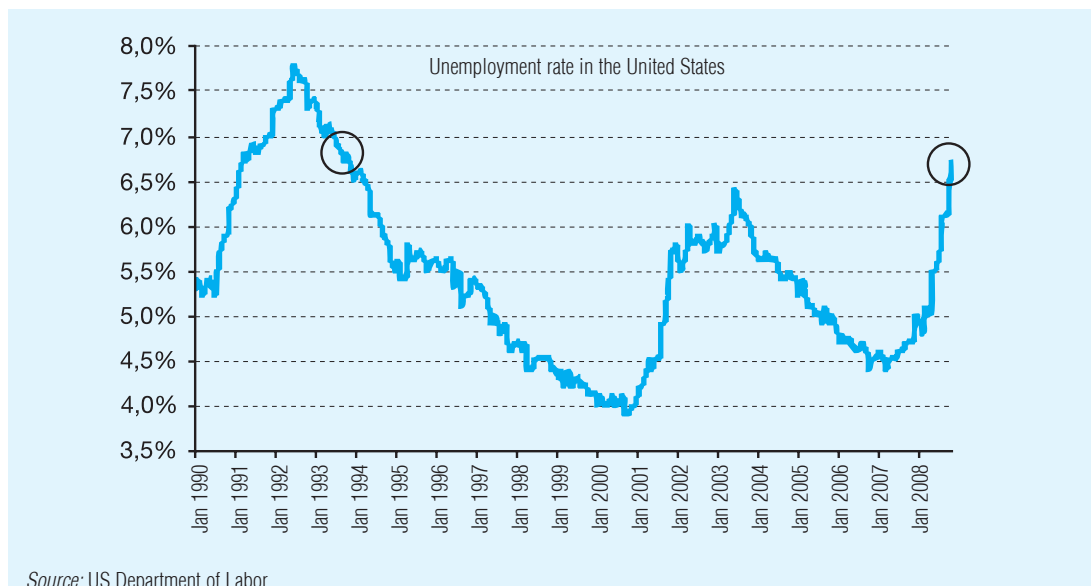
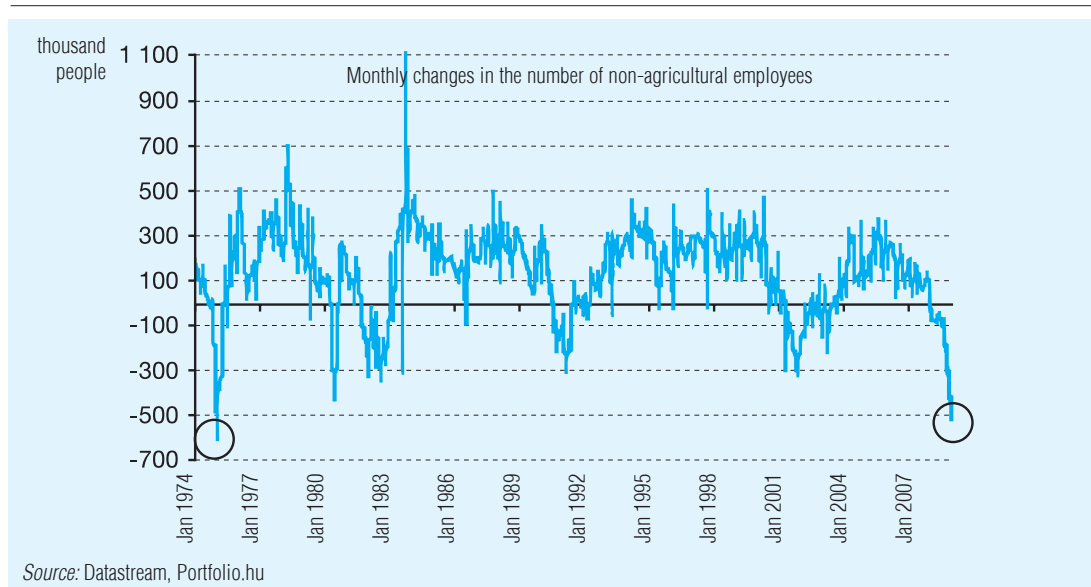
thus otherwise astonishingly permanent in this period of over half a century and the crediting cycles – which are not in accordance with output – did not cause any major problem. A specific and marked danger of deflation, which is a very likely consequence of a deep recession, developed by the end of 2008 only, in relation with the current crisis.

At the same time, not even the permanent presence of price stability could (and it had no chance to be able to, under any theoretical consideration) suppress the large-scale tendency for cyclicity permanently present in the economy. The state of labour markets is even more suitable than the development of output to illustrate the cyclical behaviour. *Chart 5* pres-

Chart 5

CYCLICALITY AND LABOUR MARKETS IN THE USA, 1974–2008

(monthly changes, thousand people)



ents the monthly levels of non-agricultural employment in the USA, with one of the most flexible labour markets in the world, in the past three and a half decades.

Chart 5 clearly reveals that, even though there was almost permanent fluctuation even in employment, the average fluctuation was relatively moderate throughout this very long period. Upwards, i.e. in the direction of net employment rise, the American labour market was characterised by a monthly average fluctuation of approximately 150 thousand people; downwards, i.e. in the direction of shrinking – with the exception of the oil crisis of 1974 – the labour market was not characterised by permanent dramatic shrinking. In 1974–2008, the average monthly net employment loss was about 100 thousand jobs. The economic shrinking that developed by the end of 2008 threatened with a loss of millions of jobs already, which really foreshadowed a contraction of unexampled extent. The contraction

was clearly caused by a sudden collapse of effective demand, i.e. of credit-based demand to be more precise, especially due to a dramatic fall in the demand for big ticket items (real estate, automobile, durable consumer goods). The forced reduction or termination of production in these sectors caused by the credit crunch sent immediate waves to the labour market, swelling a flood of unemployed (see the second part of Chart 5).

The three decades' total picture showing the development of the real effective exchange rate of US dollars throws interesting light upon the determinative role of the American economy in world economic processes and reflects the relative stability of the dollar towards foreign markets. (see Chart 6)

What Chart 6 most importantly reveals is that, in the past over three decades, international money and capital markets have well mediated the inflation and the nominal interest differences that have developed between the

Chart 6

THE REAL EFFECTIVE EXCHANGE RATE OF THE US DOLLARS IN 1975–2005
(1975=100)

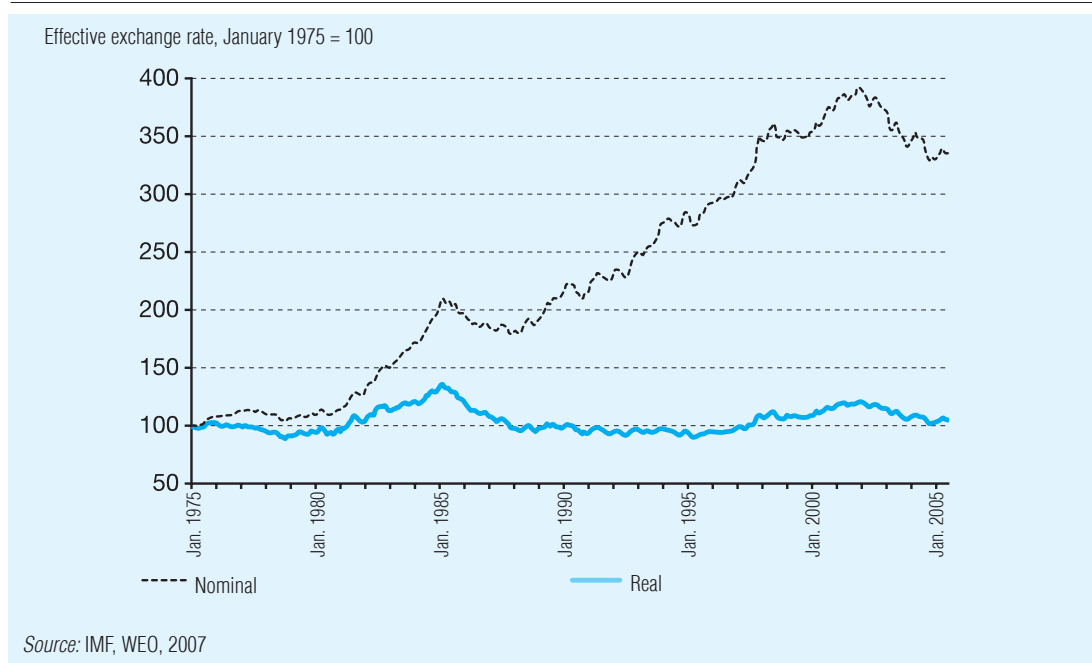


Chart 7

**USD/EURO EXCHANGE RATE DURING THE UNFOLDING OF THE CRISIS
IN JULY 2007–NOVEMBER 2008**



Source: Bloomberg.com, portfolio.hu

USA and the rest of the world, as well as the changes in productivity. The real effective exchange rate proved quite stable in that it remained close to the nominal level of 1975. The exchange rate channel has thus well mediated the international movement of goods, money and property; it has not blocked successful adaptation to the changing world economic environment. This is a most significant development in the sense that we tend to overestimate nominal exchange rate changes and this is especially frequently so in the case of the dollar.

During the financial crisis unfolding from mid summer 2008, in turn, it could be seen – as may be expected of a currency of a stable economy that also has the role of the world currency – that the US dollars strengthened fast and at an increasing pace, at least in the months filled with an intensifying mood of crisis, in the last quarter of 2008 and especially against the main rival key currency, the Euro. (See Chart 7)

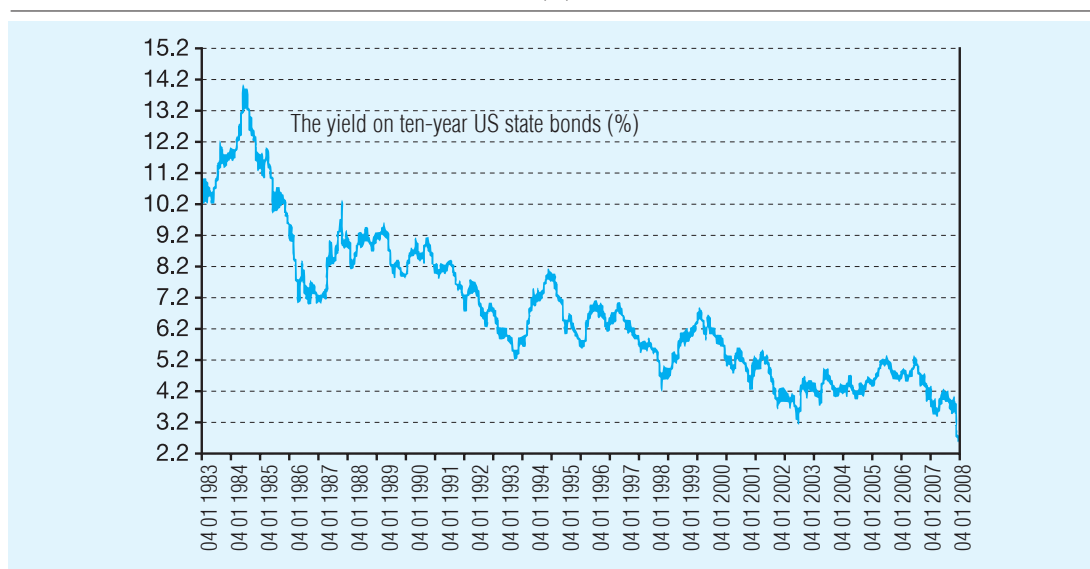
Considering the pronouncedly wild market nominal exchange rate movements experienced in the past months (in the last quarter of 2008) we can thus probably say that the bad news was almost favourable for the currency of a country that was at war, with high costs involved, by the way. The US Treasury, at least in early 2009, could still take up borrowings for both the short and the long run, under fairy tale conditions. This is also what is reflected by *Chart 8*. There are few countries in the world with such high payments balance and budget deficit that can take up long-term loans under such conditions. Recession is one thing and another thing is a forced flight into US dollars by the world's big savers and major players with liquid money surplus (companies and governments).

Considering the above, the perspectives of the US economy for the year 2009 are not so scary, as is also illustrated by *Table 2* based on data published by the US Department of Commerce.

Chart 8

US STATE BOND YIELDS, 1983–2008

(%)



Source: Datastream

Table 2

PREDICTION OF US MACRO DATA

Macro data, USA	2006	2007	2008f	2009f
GDP growth (year/year %)	2,8	2,0	1,5	0,6
Household consumption (year/year %)	3,0	2,8	0,5	0,1
Current payments balance (GDP percentage)	-6,2	-5,5	-4,7	-4,0
Inflation (annual average)	2,8	2,8	3,6	2,0
Unemployment (%)	4,6	4,6	5,4	6,1
Budget balance (GDP percentage)	-1,9	-1,2	-2,9	-10,0
State debts (GDP percentage)	37,0	36,8	38,2	48,0

Note: f=forecast

Source: US Department of Commerce, BEA, January 2009

STOCK EXCHANGE CRISIS ANATOMIES AND HISTORICAL EXPERIENCE

The period of fast and cheap access to credit in the USA is certainly over, and the yields produced by especially complex and thus also non-transparent credit products have also dried up for considerable time to come. Although a detailed analysis of the crisis is still ahead, there has been one development for certain: this very stormy crisis, the speed and severity of which

have been unseen for a long time, has called for analogies of several kinds. The most frequent analogy alludes to the crisis years of 1929–1933. This analogy, as has been partly pointed out before and as is to be further proven in what follows, is not completely justified, however. Much rather, there are signs that have largely been experienced by money markets in the past 35 years. There is a most important difference nevertheless, which is that capital and money markets have plunged at a previously never

experienced rate, as regards both the extent and speed of the plunge. It is probably safe to say thus that, for the first time since the 1930's and with justified reasons, the intervention of the American state has had to reach an unexampled extent. This fact in itself has made the situation extraordinary and unique. What is more – and this adds to the uniqueness of the situation – intervention took place at a time when a slowing US economy and a stagnant world economic environment made adaptation more difficult. The fast state intervention for the protection of the bank system was justified by all means, and not at all because of schoolbook examples of bad outstandings lurking in mortgage and investment banks, unseen from outside. (Király – Nagy – Szabó, 2008, pp. 614–616). There have been thus quite new elements, too, in the crisis anatomy.

The actual origin of the crisis – beyond the fact of general but rather long-standing savings deficits (Magas, 2008, pp. 992–995) – can clearly be grasped at the point where liquidity tension swelled into a crisis, which led to the fast development of a confidence crisis in the bank system. If we wish to find the players responsible, all of whom contributed to the development of the crisis, we have to name at least the following: the US Treasury, credit rating organisations, banks, financial institutions offering soft loans and, sharing much of the responsibility, Wall Street investment banks offering aggressive compensation schemes, which encouraged excessive risk taking. It was a characteristic feature of liquidity crises known also from earlier times that financial leverage became investors' arch enemy. The situation was made more severe by the fact that, the more of a friend artificial positioning or financial leverage (which could be a forty-times leverage) were to investors during an upswing, the more of an aggressive enemy these could become during price falls. The elemental power of the negative money multiplier became

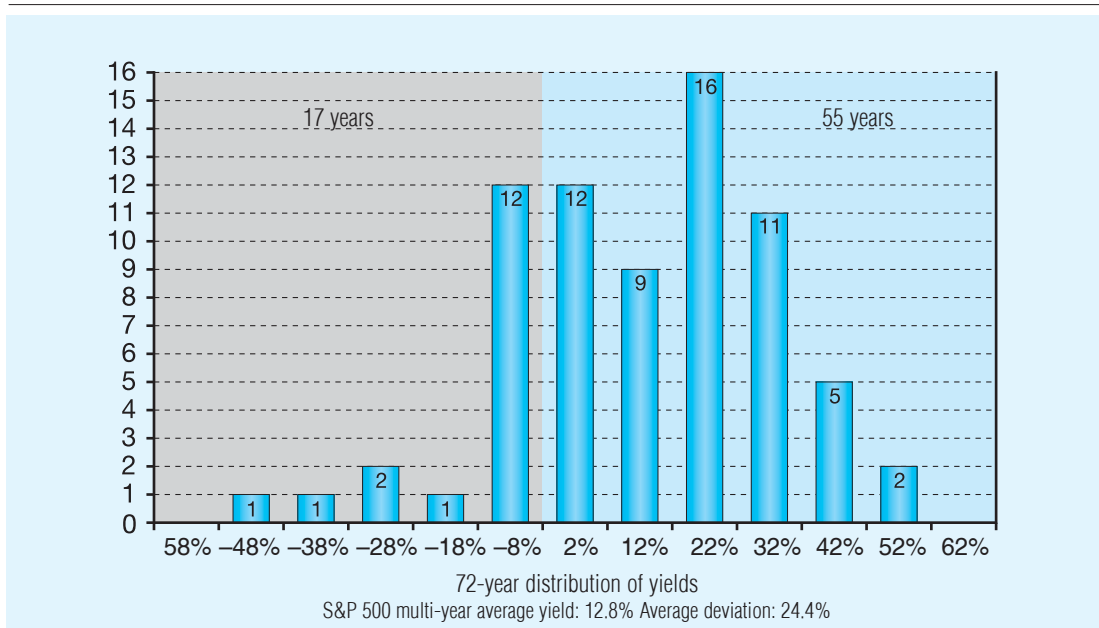
apparent also very soon and called for the means of traditional bank supervisory regulation. The collapse of the interbank market and the liquidity crisis reached capital markets very fast but it only partly provoked reactions that had been unseen before. The base story, the epidemic of no confidence towards banks and money institutions that had developed, rather created a feeling of *déjà vu* or, as *Kenneth Rogoff* put it, “an old fashioned run on banks”, so, in the beginning, it was about an old-fashioned bank panic rather than a general overproduction crisis. The claim that “we have seen something like this before” in money and capital market processes is partly to be supported by what follows.

US CAPITAL AND MONEY MARKET DEVELOPMENTS IN A HISTORICAL PERSPECTIVE – POSITIVE OVERALL PICTURE (1929–2008)

If US capital market processes are viewed in a long enough historical perspective, what can be seen is almost a basically positive tendency in which, although there were significant falls, a strongly encouraging picture can be identified overall. Certainly, either today or in the past, the time horizon of investors should not be ignored, and generalisation would also be a mistake. Yet, the long-term advantages of capital markets should not be forgotten, either²; on the contrary, they should be emphasised. This wisdom is illustrated by *Chart 9*. The 72-year performance of S&P 500, one of the most comprehensive stock exchange indexes, should also be encouraging basically. Although, depending on the average time horizon – and this is something that can be appreciated very easily – this is hardly comforting for many investors after the landslide falls of the past months. According to *Chart 9*, considering the whole period, share yields were positive in 55 years

Chart 9

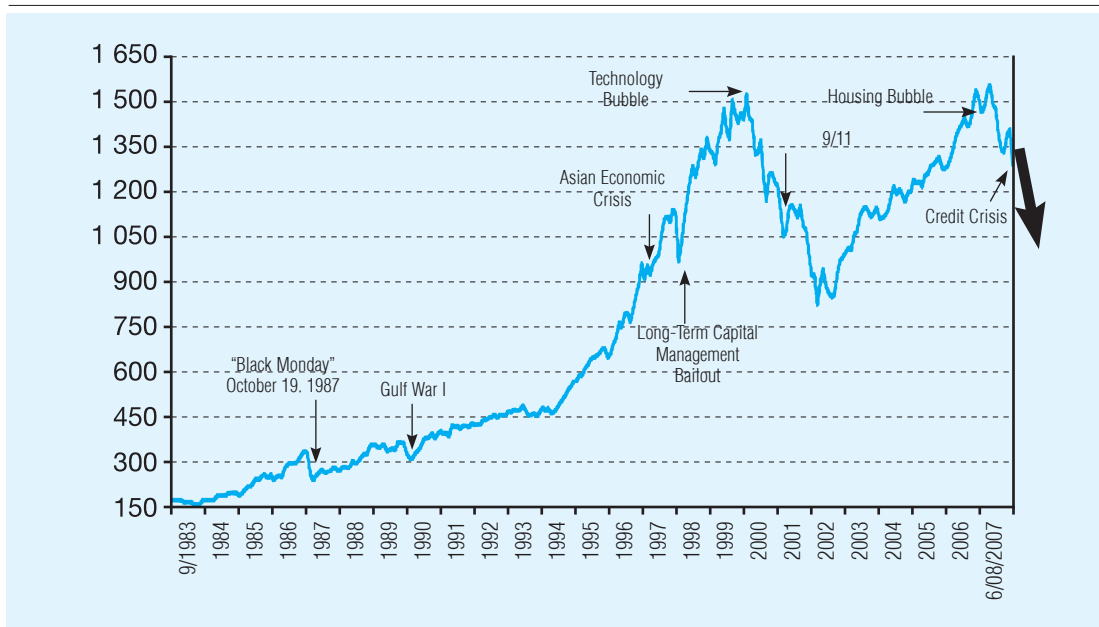
THE 72-YEAR PERFORMANCE OF S&P 500 STOCK EXCHANGE INDEX
(average yield and deviation, %)



Source: Dow Jones, portfolio.hu

Chart 10

A QUARTER CENTURY'S PERFORMANCE OF THE S&P 500 SHARE INDEX, FALLS AND RECOVERIES,
(September 1983–June 2008)



Source: Dow Jones Inc.

altogether. On the other hand, there were only 17 years when they were negative. The average yield was 12 per cent, while average deviation was quite high, 24.4 per cent.

These strongly positive historical results should give reason for optimism, at least as regards traditional share investments. *Chart 10*, which offers a quarter of a century's perspective of the development of S&P 500 also suggests that share market tendency, the development of prices, are positive despite the falls.

Crises were always followed by longer periods of rise.

“Black Monday” of October 1987, the Gulf War of 1990–91, the Asian Economic Crisis of 1997, the collapse and bailout of LTCM, the bursting of the technology (IT) bubble, the terrorist attack of September 2001 and, finally, the housing bubble and the following credit crisis have all shattered share markets, but only temporarily, because there has always been a return. We have no basic reason to assume that it will be different this time. What can this Treasury optimism be based on? Well, probably on some past experience. This is what we shall review in what follows.

If we examine how much time share markets have needed to recover after significant dramatic events or those creating especially negative mood, the following should be considered. A summary is provided in *Table 3*, which lists the stock exchange reactions to seriously negative events, falls and recoveries in the period of 1929–2001.

Table 3 shows very well that, in the majority of cases, the short-term negative reactions of markets were replaced by a recovery period within two months already, which, in most cases – although not always – still continued after 235 days. If there was no significant bad news regarding the fundamentals of the US economy in common knowledge, DOW JONES, the share index representing US blue-chip shares and markets, usually experienced continuous recovery even 3 quarters after the event. Although this, let us quickly point out, allows no general or guaranteed conclusion as regards the future, it can be considered encouraging nevertheless. *Chart 11* has a similarly positive message.

The data of *Chart 11* reveal how successful recovery has been, i.e. what annual yields have

Table 3

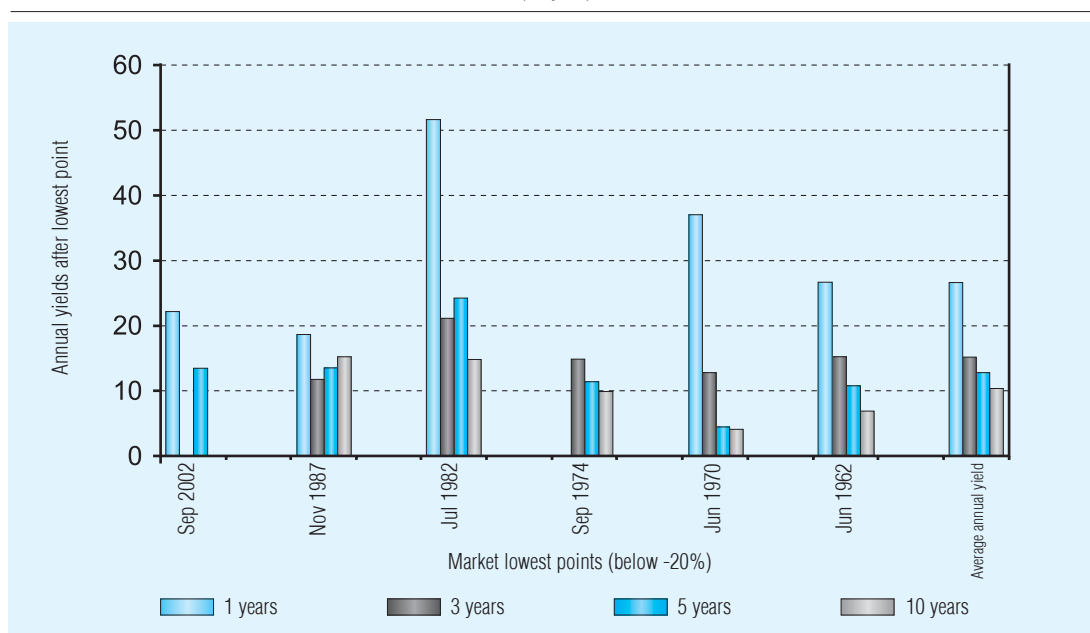
REACTIONS OF THE NEW YORK STOCK EXCHANGE (DOW JONES INDEX), 1929-2001: FALL AND RECOVERY IN THE LIGHT OF NEGATIVE EVENTS

Negative event	Change in the DOW Jones index (%) after 1 week	Change in the DOW Jones index > after 63 days	Change in the DOW Jones index > after 126 days	Change in the DOW Jones index > after 253 days
Stock market crash, November 10, 1929	-43	+ 34	+46	+11
Pearl Harbour, 1941	-6.5	-2.9	-9.6	+5.4
Arab oil embargo, October 1973	-18.5	+10.2	+7.2	-25.5
Fall of Nixon-government, August 7, 1974	-17.6	-5.5	+12.5	+27.2
Black Monday, October 2, 1987	-34.2	+11.4	+15	+22.2
Iraq attacks Kuwait, August 2, 1990	-13.3	+2.3	+16.3	+22.4
Asian Economic Crisis, October 7, 1997	-12.4	10.5	+25	+16.9
WTC terrorist attack, September 11, 2001	-14.3	+21.2	+24.8	-6.7

Note: the data of after 63 days, 126 days and 253 days respectively show the change compared to the data after 1 week rather than a level compared to a benchmark.

Source: Ned Davis research, Inc. T. Rowe Price Associates

THE RECOVERY OF SHARE YIELDS AFTER DROP TO LOWEST POINT, S&P 500, 1956–2007
(%/year)



Source: T. Rowe Price, Monthly stock index, S&P 500

been reached by S&P 500 1 year, 3 years, 5 years and 10 years respectively after previous significant falls of over 20 per cent. It should be noted that the 20 per cent fall – as a borderline – should always be compared to an earlier peak. As Chart 11 very well shows, the historical experience is clearly encouraging also in this case, since we can see relatively fast recovery and return to the positive domain within one year, as well as the return of double-digit yields in a 5 and 10-year comparison, too (the only exception was the fall in June 1970). It is a further encouraging stock exchange development in this historical retrospective examining crisis anatomy that in a 3-year, 5-year as well as 10-year comparison, the average annual S&P 500 index yield could be double digit (15.2, 13.0 and 10.3 per cent respectively). These yield data cannot be interpreted as ones suggesting pessimism on the basis of the experience of stock exchange years qualified especially bad, i.e. with above average falls.

What was really special about the 2008 financial and partly capital market crisis, can be clearly related to the processes that developed in the financial sector. We shall finally present some characteristic statistics on this.

The well-balanced performance of financial shares did not at all help predict the coming of the Big Trouble. As *Chart 12* reveals, the plunge came suddenly, without noticeable antecedents.

It tells a lot about the 2008 performance of the US financial sector that, if we examine the daily percentage fluctuation of S&P 500 financial shares only, what we find is that, in the whole history of the sector (considering daily price changes), 8 of the 10 best days were in the year 2008. Daily positive records were between 13.1 and 7.4 per cent. But, as can probably be suspected: the negative record also dates to the year 2008: 6 of the 10 worst days of financial shares were in 2008, 5 of which hit investors within a concise time frame, in September. The negative

Chart 12

**S&P 500 INDEX OPERATING EARNINGS VS. FINANCIAL SECTOR OPERATING EARNINGS,
PLOTTED QUARTERLY**

(Year over year percentage change*)



*The steep plunge in the financial sector already reflects the extensive write-offs due to the dependence on the mortgage market, which suddenly turned the quarterly balance of several big investment banks and insurance companies into the negative.

Source: Bloomberg, T. Rowe Price

scale ranged between -7 and -6.7 per cent. There was thus extraordinary fluctuation in both directions. In this respect, the year 2008 has probably been recorded in the calendar of the most significant stock exchange events already.

SUMMARY – CONCLUSIONS

■ To the basic question if there exists a coded, i.e. a formalisable real economic correlation which is thus permanent and, as such, is suitable for making predictions, which could be used in relation to the 2008–2009 US recession and international financial crisis, the answer is rather no. This answer is a little uncertain, however, because, from old times, there do exist models generating cyclicity. The future aggregated performance of the US economy

could not be foreseen and the extent or exact timing of growth/recession cycles could not be precisely forecast, however. There were basically only indicative statistical observations available. Neither the actual future length of the trends, nor the amplitude of deviations were to be calculated by any formula, not even by the most up-to-date statistical procedures of the US Department of Commerce. There were thus no actual predictions of a crisis of such size to be read before June 2008, which could have reached the players concerned in time, either in the USA or at major international research institutes.

■ The most important factor in generating the current state of recession was overconsumption. Both at the US real estate market and at the underlying credit market, it was basically about overspending generated by an arti-

ficial demand in which money market innovations boosted the assets of sellable products at an unexampled extent.

The freezing of the US credit market influenced a number of other sectors to the negative and, in a very short time, within just 6 months, the negative money and spending multiplier has caused immense damage at money and credit markets as well as at other commodity markets both in the USA and globally. The asset loss suffered (and realised) in the USA is estimated to reach USD 1,500–2,000 bn.

■ The current situation of recession is most severe: it has been the most dramatic economic decline since WWII but, if viewed in an even longer historical perspective, it has not been the worst. Examining the processes through the economic history of the USA, we can see that the number one economic power in the world has run a rather stable course of growth in the past three decades. This is what we should hold on to, hoping for speedy recovery. There are in fact no basic potential domestic output/real economic constraints or dramatic outside shock even today, i.e. there is no reason hindering the American economy from returning to its normal state, assumingly by the end of 2009 already. We do know at the same time that, for the mitigation of global unevenness and inequality, the level of domestic consumption in the USA should be reduced and, at the same time, the outflow of commodities and capital should be increased.

■ In a historical perspective that can be called really long – namely between 1929 and 2008 – the US economic development was simultaneously and permanently characterised by stability and cyclicity. Considering the historical perspective of the seven decades before the crisis that developed by the end of 2008 it can be established that the US economy witnessed a positively even performance, at

least considering the development of real GDP. With the exception of the Great Depression, the level of real output incorporated in GDP never fell to a permanently low level with a double-digit unemployment rate. According to previous experience, such really deep recessions were limited to one, one and a half years only since, even at calamitous times like in 1933–1934 as well as after the end of the extraordinary war efforts in 1945–1946, recovery started after one, one and a half years. The shrinking of real output was caused by the drying up of the credit market primarily rather than an outside shock or an inner sectorial or supply distortion. This is even more likely so because, in the past over three decades, international money and capital markets have well mediated the inflation and the nominal interest differences that have developed between the USA and the rest of the world, as well as the changes in productivity. The effective real exchange rate proved quite stable in that it remained close to the nominal level of 1975. The exchange rate channel has thus well mediated the international movement of goods, money and property; it has not blocked successful adaptation to the changing world economic environment. The financing of the United States from abroad has not stopped. This is a most significant development in the sense that we tend to overestimate nominal exchange rate changes and this is especially frequently so in the case of the dollar.

■ It proved the consolidated nature of real economic conditions furthermore that the position of the American Treasury has got stronger; at least in early 2009, it could still take up borrowings for both the short and the long run, under fairy tale conditions. There are few countries in the world with such high payments balance and budget deficit that can take up long-term loans under such conditions. Recession is one thing and another thing is a forced flight into US dollars by the world's big

savers and major players with liquid money surplus (companies and governments). Partly in the light of this historically improving, i.e. shortening recession cycle trend and partly thank to the consolidation of domestic and international credit market it seems probable that the economic shrinking that developed in the USA by the beginning of 2009, will not last longer than 3–4 quarters.

■ In a longer historical perspective, capital markets (share markets primarily) still reflect a strongly positive picture. If US capital market processes are viewed in a long enough historical perspective, what can be seen is almost an unbroken rising tendency in which, although there were significant falls, a strongly encouraging picture can be identified overall. This general picture is thus positive.

■ A closer look makes the picture less favourable: considering the 2008 performance of the US financial sector, it is probably rather the negative events that will be kept in economic historical memory. Even though there were positive aspects also. Considering daily price changes, 8 of the 10 best days were in the year 2008. Daily positive records were between 13.1 and 7.4 per cent. But the negative record also dates to the year 2008: 6 of the 10 worst days of financial shares were in 2008, 5 of which hit investors within a concise time frame, in September. The negative scale ranged between –7 and –6.7 per cent. There was thus extraordinary fluctuation in both directions. In this respect, the year 2008 has probably been recorded in the calendar of the most significant stock exchange events already.

NOTES

¹ The neutrality of money is a well-known concept in monetary macroeconomics: it means that by merely increasing the volume of money present in the economy, neither the output, nor employment can be raised because more money gets neutralised very fast, causing a rise in the price level.

² Foreign investors have also had a good share of the advantages of the US share market: for the yield trends of dollar-based investments at emerging markets and in the USA in the past decade, see Magas, 2007b

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