Phillip J. Bryson*

Economy and "New Economy" in the United States and Germany

The expression "New Economy" is used inconsistently. This article reviews the driving forces of the US boom of the 1990s, examining the changes introduced in the period and before, focusing on the IT sector and new technologies. The "New Economy" is not just the new sectors, but changes in the overall economy emanating from them. These changes will not evaporate in an economic slowdown. Comparisons of the USA with Germany and Europe illustrate that the "New Economy" will also continue to develop there on the foundations already laid.

Since the US economy is an engine of growth for the world and its large market is a beacon to the exporters of many nations, much of the world is interested in having some notion of where the economy is and whither it is tending. Having the leading economy of Europe, Germany is of critical importance for the European Union and also represents a significant global force.

On both sides of the Atlantic observers have wondered whether the United States may be leading the world into a new economic era. The US economy's continuing strong performance has established new parameters and possibilities for economic success, even to the extent that many believe they have discovered a "New Economy". The service-oriented economy, now based on information and other technologies, has undergone changes so sweeping that the very nature of economic activity seems to be based upon new rules.

Is that New Economy anywhere on the horizon in Germany, or is it a part of Germany's future? The German and American economies may be out of cyclical synchronization, and perhaps that is fortunate. But with the international spread of technologies, they can be expected to tend toward a common level, with the German economy showing the way for Europe.

The question as to whether the economy can appropriately be described as "new" can be addressed in the context of the current North American prosperity, encompassing not only the bright possibilities, but also the distinct perils of its future. Of the two propositions addressed by this paper – that the economy has changed in terms of its fundamental structure and that the changes have produced a boom – the former seems more significant. Especially since the boom has recently been approaching either a new phase or an end. Again, the main question is whether fundamental changes have permanently altered the nature of and prospects for growth and change.

This article will first examine the productivity and performance of the US and German economies. It will then review the foundations laid in the past through economic reorganization, strategic investments, and international realignment, before looking at the role of high tech and the internet, the sectors generally and inappropriately labeled the "New Economy". It then focuses on the relationship between trade and growth and whether the combined old and new sectors are increasingly open, and goes on to address the intangibles of economic growth: corporate governance, the regulatory environment, and business confidence. Next, the stock market, the wealth effect, and the boom are investigated as is the question whether business cycles are history. Subsequently, the weaknesses and potential problems of the US economy in this new millennium are considered: savings rates, imports, personal indebtedness, and the durability of positive expectations. In conclusion an answer is presented to the question: "Whither the New Economy in the USA and in Europe?"

Current Productivity and Economic Performance

The economy of the United States enjoyed solid expansion during the 1990s. Was that expansion, together with its effects and causes, sufficient to warrant the designation "New Economy"? In Germany, a period of fiscal trial following reunification with its leveraged Eastern resuscitation, appears now to be moving toward full economic reinvigoration. The European community is also coming under the influence of currency convergence. One should be warned against drawing inferences about the strength or potential strength of the European economies based

*Associate director, The David M. Kennedy Center for International Studies, and Professor of Economics, The Marriott School, Brigham Young University, Provo, Utah, USA.

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upon the market value of the euro from its introduction through the period of decline that followed. At the same time, although the new currency will reduce transactions costs within Europe significantly, the new monetary regime will not alone produce a European "New Economy".

When the American economic boom began in the early 1990s, the foundations of economic renewal had already been laid, but it was later in the decade that the resurgence became apparent, then robust. Those foundations will be discussed below. Through the larger part of the decade, it became increasingly apparent that the American economy was generally stronger than it had been in a very long time.

Germany, newly reunited and a leading player in the European Monetary Union, appeared on track for a brilliant future in 1990. But when the reconstruction costs for the former German Democratic Republic were much higher than the Kohl government anticipated, German fiscal policy was impacted heavily. At the same time, the high costs of the social market economy reflected the structural inflexibility of Germany's social welfare policies, which had become responsible for distressingly high unemployment. These phenomena are commonly referred to as "Eurosclerosis", which is not exclusively a German phenomenon. Nor has this complex of problems been overcome, although the German economy is now breaking out of the stagnation of the 1990s.

The American Decade

As the nineties began, the US economy appeared to be stagnating. At that point in time, still well before the onset of the Asian crisis, it was probably a consensus among professional observers that the Asian model had proved successful and that it might already be too late for Americans to learn from the Japanese and the Koreans.[1] Thurow was convinced that a national strategy or national industrial policy reflecting the Japanese virtues would be essential to the survival of US global competitiveness.[2] Porter wrote that the government's role in generating international competitiveness was a vital, "if not the most important, influence" in national economic performance. The policies of the Japanese and Korean governments were "associated with the success these nations' firms have enjoyed".[3]

At the height of the gloom and doom discussion, the United States was just about to enter a period of economic expansion of record-breaking power and longevity. That boom would be fundamentally different from those preceding it. The long expansions of the 1960s and 1980s had been flawed by inflationary tendencies when employment levels were high or were beset with high levels of both inflation and unemployment.[4] In the boom of the 1980s huge federal budget deficits had grown out of an expansionary fiscal policy offset by the tight monetary policy response to the inflationary period of the seventies and its aftermath.

In the boom of the nineties, fiscal policy has been restrictive and monetary policy accommodative. The result has been the longest period of economic expansion in US history, featuring a utopian concatenation of declining unemployment, wage and price stability, rising productivity, and strong economic growth. Productivity growth in the US, reports Krugman, has accelerated, "perhaps from the 1 percent per annum norm of recent decades to 2 percent or more."[5] He indicates that in 1995 the rate of growth of potential US output would have been put at slightly more than 2 percent by the conventional view, and the natural unemployment rate estimated at not much less than 6 percent. "It now seems plausible that the rate of potential growth is around 3 and the natural rate below 5".[6] If this improvement is sustainable, output in 2005 will be nearly a quarter greater than would have been projected only a few years ago.

Krugman sees this as a strong performance, but scarcely finds it miracle-like. He suggests that the US economy would not appear nearly as dramatic if the European and Asian situations were not relatively weak. In his view, no single European nation[7] can become as strong as the United States, or even Japan, so the future of Europe will be determined by

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[1] Lodge, obviously an advocate of the Asian model, found that the US government has "not pursued long-term economic goals...it has also operated on market principles under which it is not the role of government to plan for the competitiveness of the economy in the world" Cf. George C. Lodge: Korean Development and Western Economics, Boston 1996 (revised), Harvard Business School, p. 8. It was his view that American firms were operating under the disadvantage that "the overriding responsibility of managers is not to the nation but to shareholders...not with the long-run health of the enterprise they theoretically own (sic !) but with quick and generous returns to their clients" (ibid.) Lodge shared the view, quite popular at the time, that "a critical function of the government-business partnership was the identification of particular industrial sectors" (ibid., p. 9) in an industrial targeting policy. He praised the "Confucian perspective" that the planning bureaucracy should and would provide leadership to "provide for, to enrich, and to educate the people. Bureaucrats are not merely government functionaries, but leaders, intellectuals, and teachers" (ibid., p. 10).

[2] Lester Thurow: Head to Head: The Coming Economic Battle Among Japan, Europe, and America, New York 1993, Warner.

[3] Michael E. Porter: The Competitive Advantage of Nations, New York 1990, The Free Press, p. 126.

[4] United Nations: World Economic and Social Survey 1999: Trends and Policies in the World Economy, New York 1999.

[5] Paul Krugman: Can America Stay on Top?, in: Journal of Economic Perspectives, Vol.14 (2000), No.1, pp. 169-175, here p. 170.

[6] Ibid.

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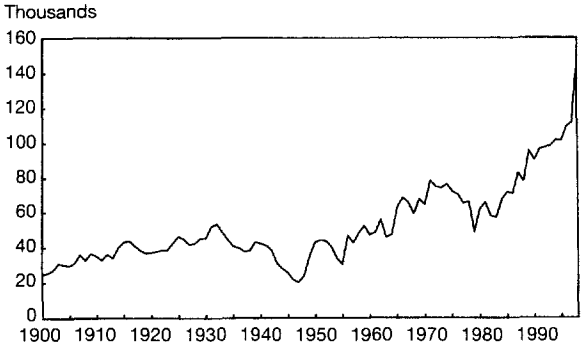
the continent's ability to engender cohesion and self-confidence. However, the euro and monetary integration will not alone place Europe in an ascendant position in a North Atlantic balance of power.

As we will see below, the American performance can be traced back to technical creativity. An excellent measure of this creativity and its impact on the internet economy's boom in the 1990s is the number of patents granted in the USA. There has been an explosion in the number of patents granted in the United States in recent years. Considering that some information technologies are changing so rapidly that the pursuit of patent protection can be viewed as meaningless for those areas, the large numbers of patents applied for and granted is especially impressive. Discoveries in the information economy are at the heart of what has happened in the US economy.

Figure 1
Patents Granted Since 1900



Source: Department of Commerce (Patent and Trademark Office); see Economic Report of the President, 2000, p. 122.

The German Recovery

Immediately following German reunification, a campaign to reconstruct the new Bundesländer was launched. Since taxpayers were promised that no tax increase would accompany reunification, the reconstruction was financed by public debt. Unfortunately, the costs were much higher than expected. The ratio of public spending to GDP increased from about 46% in 1989 to almost 51% by 1996.[8] The ratio of public debt to GDP increased from just under 42% to nearly 61% in those years. Budget deficits of the Federal Republic were also high in the 1990s, but came down from 3.4% of GDP in 1996 to 2.6 % in 1997 and 1.7 % in 1998.[9]

Reconstruction outlays based on federal borrowing would have proven much more inflationary, had they not been countered by high interest rates. Unfortunately, the long-standing structural unemployment problem in the Federal Republic was exacerbated by the resulting tight-money situation. On occasion, Western German unemployment has exceeded eleven percent; in the east, the rate has been close to 20 % in recent years.[10]

In the aftermath of the reunification decade, the German finance establishment is on a "consolidation course" to restrict spending and reduce public sector deficits. The Federal Republic's goal is to achieve a balanced budget by no later than 2006. Tax reductions, also on a "quite impressive scale",[11] have been designed to stimulate private spending. Higher taxes on energy consumption are to encourage economic use of energy resources. The reduction of deficits and debt are to reduce "squeezing out" by taking pressure off bond markets. High interest rates have been no great problem for the inflation-combating Germans, but other countries in the region, fearing capital outflows, have also had to maintain higher interest rates than they desired.

While Germany labored under the strain of reunification, another very significant development was in process. German corporate governance, traditionally based on commercial and industrial finance through the banking system, began to show a preference for change. The development of the German stock market, the Dax, as a means inter alia of generating venture capital for high tech and information industries, began to support the development of a nascent, New Economy.

Economic Reorganization and Strategic Investments in the USA

The period following the Second World War was characterized by excess capacity generation in the United States, a process which carried on into the

[7] There are obvious pitfalls that must be avoided in comparing a country like Germany to the United States, or even the continent of Europe to the USA, as Rothschild reminds us. Cf. Kurt W. Rothschild: Europe and the USA: Comparing What with What?, in: Kyklos, Vol. 53 (2000), No. 3, pp. 249-264. To set the reader's mind at rest, I will not be making refined, statistical comparisons of economic outcomes, but will be looking primarily at *prospects* that might be implied at some future point by today's inputs, e.g. as a result of investments etc. See the end of the paper where Stierle is quoted, showing that measures such as Europe's investments in IT equipment lag behind those of the USA, but can be expected ultimately to match those of the latter.

[8] Hermann Remsperger: Is There a New Economy in Germany?, in: Deutsche Bundesbank: Auszüge aus Presseartikeln, No.14, 20 March 2000, pp. 14-18.

[9] Federal Ministry of Finance: German Stability Program: December 1999 Update, Berlin 1999.

[10] Federal Ministry of Finance: The Economic Situation in the Federal Republic of Germany, Berlin 2000, Monthly Report Nos.1-2.

[11] Hermann Remsperger, op. cit., p. 16.

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1970s. Stock prices were generally depressed because a substantial share of the capital stock was underutilized; there was little demand for the products of numerous industries and changing technologies left capacities obsolete in others. Nevertheless, managers refused to downsize their activities; in fact, they continued to increase their investments. The result was that share prices remained low and unproductive assets accumulated. What better incentive could be provided for corporate takeovers than making the price of ownership low and the accumulated assets of ownership large?

In the 1960s, many large conglomerates had been formed; their parent companies brought large numbers of separate and disparate businesses under single management. The corporate decision-making powers were located at conglomerate headquarters, but particular managerial information and specific managerial knowledge were located in the dispersed and separate corporate divisions. So while noting the low ratio of share prices to corporate assets, competitive managerial outsiders monitored firms that were excessively large and unmanageable. They felt confident they could take over such firms and produce greater profits and higher share prices. As corporate debt could be arranged with facility, leveraged takeovers and buyouts became the order of the day.

A good share of the American public saw the 1980s era of mergers and acquisitions as a game of corporate greed and intrigue but, as a precursor of the expansion of the nineties, it should be seen[12] as a preparatory period of industrial restructuring and as a process of forcing many inefficiently managed firms to make their departure from the industrial scene. The effect was that the value of public equity in the United States more than doubled (from $1.4 to $3 trillion in a decade), the decline in productivity was reversed, real income was increased over the period by about a third, and record levels were established for expenditures on research and development.

As a part of this process, major investments were being made that would prepare the economy for the expansion that followed and provide a new technological foundation for future growth. In the period from 1970 to 1995, total private gross fixed investment started out at below 15% of GDP. It increased to 16.4% in 1974, to 18.8% in 1979, then stayed around 17 or 18% until the mid-1980s. By 1989 it was back down to 15.3 and by 1994 to 14.6% of GDP. So these expenditures were substantial from about the mid-1970s into the 1990s.

Strategic investments also undergird the boom decade of the 1990s in the United States. Table 1 reviews US private fixed investment and two of its key components: first, expenditures for information processing equipment and software for selected years between 1960 and 1999; second, expenditures for industrial equipment. In this period the share of private investment dedicated to information processing equipment and software began to grow slowly with the initially tentative application of new technologies. Thereafter, it increased dramatically and monotonically as a percentage of total investment. Approximately six and one-half percent of total private investment expenditures in 1960 were for information processing equipment and software. By 1999 the share had increased to nearly twenty-six percent of the total. Private fixed investment overall was a rising share of GDP throughout the period. The strength of these investments, particularly as they provided the information foundation of the New Economy, were the foundation of the US economic expansion of the 1990s. The boom was really based more on investments in computer equipment and software than on traditional equipment and the growing use of IT technologies began to produce new economic outcomes.

Table 1
US Private Investment in Information Processing and Industrial Equipment, 1960-1999

($ billions)[1]

Year	PFI (Private Fixed Investment)	IPE (Information Processing Equipment and Software)	IPE/PFI (IPE as % of PFI)	IE (Industrial Equipment)	IE/PFI (IE as % of PFI)
1960	75.7	4.9	6.47	9.3	12.3
1970	150.4	16.7	11.10	20.2	13.4
1975	236.5	28.2	11.92	31.1	13.2
1980	484.2	69.6	14.37	60.4	12.5
1982	531.0	88.9	16.74	62.3	11.7
1984	670.1	121.7	18.16	67.6	10.1
1986	740.7	137.6	18.58	74.8	10.1
1988	802.7	155.9	19.42	83.5	10.4
1990	847.2	176.1	20.79	91.5	10.8
1994	1034.6	233.7	22.59	113.3	11.0
1998	1460.0	356.9	24.45	150.2	10.3
1999	1577.4	407.2	25.81	151.4	9.6

[1] Quarterly Data at Seasonally Adjusted Annual Rates.

Sources: Economic Report of the President, 2000, Table B-16, p. 326; and own calculations.

[12] Zoltan J. Acs and Daniel A. Gerlowski: Managerial Economics and Organization, New Jersey 1996, Prentice-Hall.

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The German Economic Realignment

Will the economic upswing already declared underway by the German economics establishment be more than merely cyclical in character? Remsperger, Stierle and others are hopeful that it will shift the growth trend of the economy upwards.[13] They are convinced that is what happened in the United States in the 1990s and that with a willingness to pursue appropriate policy initiatives, that result will follow in the Federal Republic.

There are high hopes in most of Europe that economic integration, developing in Europe since the establishment of the European Coal and Steel Community in 1950 and evolving through other subsequent institutional variants, will continue to be a driving force in an increasingly unified economy. The European integration process creates and diverts international trade. Trade is created by expanding the internal market of the community at the same time as it is being diverted from wonted patterns between community members and outsider nations. This realigned trade generates net benefits in the form of lower prices for consumers and larger markets and enhanced trading possibilities for producers. The consumer benefits derived from trade expansion are larger to the extent that community producers can operate at price and quality levels close to those of world class producers, which is often the case in Europe. Additionally, expanding trade will promote structural adjustments in industry and result in cost savings and greater competitiveness for producers as they incur economies of scale and scope. Advocates of integration tend to believe that the larger integration benefits stem from these dynamic effects, which have been at work for some time as European integration has progressed. Such effects are currently being complemented by the monetary integration that will reduce transactions costs in integrated markets.

As industries take advantage of new competitive possibilities, they will likely experience a sustained increase in industrial productivity. This is also part of Europe's hope for a New Economy, but it cannot be expected to develop without the technical amelioration of the information industries. If the "newness" of the New Economy is not merely some beneficial but ephemeral aberration, it will prove susceptible to transplantation. Obviously, the characteristics of the US economy of the 1990s and thereafter will be subject to replication in technical fields and in relevant industries. They will be so in Europe and Asia at an early date, especially in Germany, the economic leader of the European Union.

The Role of High Tech and the Internet

The internet and e-commerce have been of undeniable importance in the so-called New Economy. Following as a logical extension of the computer's capabilities, the development of the internet economy has been the most important feature of the boom of the 1990s.

At the beginning of this new century, the service sector provides the largest number of jobs and generates nearly two-thirds of GDP in the United States. Knowledge-based industries such as finance, insurance, business, legal and other professional services have led the growth of the services sector. We shall briefly review analyses of the contributions of the high tech industries to economic growth in the following.

The capital market provides evidence of the impact of information technology (IT) on the economy. In the first half of 1999, the venture capital industry raised $25 billion at an annual rate. Approximately two-thirds of this total, over $16 billion, went to the IT sector, and of this roughly $12 billion went into Internet companies. In terms of market capitalization, the IT hardware sector now accounts for about 14 percent of the US total; a decade ago it was only six percent. Today's software component of about 9 percent was at a mere two percent in 1989. Of the total value of US stocks, those in the internet sector represent about 4 percent.[14]

Role of the New Economy in US Economic Growth

The dramatic diffusion of computer-based technologies was possible in good measure because of the rapid decline in the prices of computer equipment. Jorgenson and Stiroh[15] argue that this resulted not in economy-wide technical change (creating greater output from the same inputs), but in massive substitution of computers for labor and other equipment in home and business sector use. Normally, in technical productivity measurement the use of capital equipment produces "spillovers", residual economic growth beyond that directly attributable to capital and labor. Interestingly, the economic expansion of

[13] Cf. Hermann Remsperger, op. cit.; and Michael H. Stierle: New Economy – Wunschtraum oder Realität, in: Wirtschaftsdienst, Vol.80, No.9, Sept. 2000, pp. 549-556.

[14] Economic Report of the President, Washington 2000, pp.104-105.

[15] Dale W. Jorgenson and Kevin J. Stiroh: Information Technology and Growth, in: American Economic Review, Vol.89 (1999), No.2, pp. 109-115.

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the 1990s did not produce an increase in total factor productivity, or in output per unit of factor input.

Jorgenson and Stiroh show that from 1948-1973, output grew 3.4 percent per year, with capital and consumers' durables producing 43 percent and labor producing 32 percent of the total growth. Total factor productivity accounted for the remaining 25 percent. But output growth slowed sharply after 1973, and registered another, smaller decline after 1990.

The rate of growth of output was 2.4 percent per year from 1990 to 1996. Note that computers contributed to growth in this period as a "service flow" to households as well as directly as an investment good. Since 1990, computers have been responsible for almost a sixth of the annual 2.4 percent output growth: they represented nearly 20 percent of the capital input's contribution to growth and 14 percent of the services contribution of consumer durables. The bottom line of research by Jorgenson and Stiroh is that computer-related gains are fundamentally changing the economy, but not by producing growth spillover effects to the economy as a whole. Returns to the economy's investments in IT equipment have been captured by computer producers and users themselves as they substitute this equipment for other inputs.

It does appear that the "New Economy" is responsible for an increase in system-wide productivity. From the middle of the seventies, productivity clearly slowed down, prohibiting a growth of incomes. But it was expected that the introduction of new technologies, especially in information processing and telecommunications, could reverse this trend. Advocates of the idea of a New Economy pointed to the lag between the implementation of new technologies and the appearance of productivity effects. Heilemann[16] et al. show that the quarterly productivity rates since about 1995 do in fact seem to indicate an upward shift in the trend. The time period in question is a brief one, so it is difficult to be certain whether the rather dramatic increases will in fact be sustained. There have been periods of increasing productivity in the past, especially in the last phases of cyclical upturns, that did after a time prove to have been strictly temporary.

Characteristics of the New Economy

The separate question of whether there is more to the New Economy than increasing productivity and rapid growth is also of great significance. The issue is that the New Economy constrains the managers of firms to behave according to different principles. Let us consider just three of the major changes that raise the question whether there must be a new economics to address the analytical riddles of the New Economy.

First, it is argued that the notion of profit maximization cannot be applied as is traditionally done.[17] The information economy incurs fixed costs of production, but having generated at the outset the information that can be used for various production and marketing purposes, the marginal costs of such information products, normally to be equated to marginal revenues, are zero. Thus, some would claim the rules of neoclassical economics no longer hold, a proposition hard to take seriously.[18]

Second, the classic question of whether the firm should make or buy a product, component, or service, cannot be answered in the New Economy in the traditional way. As a result of being incapable of addressing these problems in the new ways now appropriate, a number of major firms have encountered extreme difficulties. Finally, because it has become possible in this electronic age to separate pure information characteristics from the information associated with production, it becomes possible to formulate decisions to use and/or to sell for both kinds of information, and business decision-making assumes new dimensions. But Shapiro and Varian forcefully defend the view that in spite of important changes in the economic system, analysis does not require "a brand new economics";[19] current analytical tools can address these new issues quite adequately.

Much of the "newness" of this economy, of course, arises from the growing share of world commerce transacted on-line. The magnitude of transactions costs savings achieved through the new medium might prove to be of revolutionary proportions and the rapid growth of e-commerce has convinced many that we are seeing a New Economy. These developing phenomena will not prove different in Germany or other leading world economies as techniques are

[16] Ullrich Heilemann, Roland Döhrn, Hans Dietrich von Loeffelholz and Elke Schäfer-Jäcklel: Der Wirtschaftsaufschwung der Vereinigten Staaten in den neunziger Jahren – Rolle und Beitrag makroökonomischer Faktoren, Essen 2000, Rheinisch-Westfälisches Institut für Wirtschaftsforschung, p. 36.

[17] See, for example, Peter Kalmbach: Eine neue Wirtschaft im neuen Jahrtausend?, in: Wirtschaftsdienst, Vol.80 (2000), No.4, pp. 210-217.

[18] Never mind that zero marginal costs are not a problem in the non-competitive situation often expected to prevail in the new economy. One simply selects the point on the (downward sloping) demand curve at the output where marginal revenues equate to zero.

[19] Carl Shapiro and Hal R. Varian: Information Rules: A Strategic Guide to the Network Economy, Boston (Mass.) 1999, Harvard Business School Press.

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replicated and routinized. One sign that the economy-wide adjustments to this new economic era are being made is the growth of mergers and acquisitions in Europe. These phenomena permit scale economies to capture the new cost-reducing aspects of information, and for this reason they have become ever more significant in Germany, Europe and Asia.

Expanding Exports and Ballooning Imports

Over the past few decades, the economy of the United States has become increasingly open. Measuring the economy's openness as the ratio of all exported and imported goods and services to the GDP, the United States had reached 29.3% in 1998, compared to Japan's 18.1%. Heilemann et al.[20] indicate that even the openness ratio of the euro zone, if calculated exclusive of intra-European Union trade, would not be much higher.

These analysts also note that US trade with the developing countries (40% of the total) is significantly larger than Germany's (16%); while the share of American trade with the countries transitioning from plan to market is only about one percent, Germany's is about 10 percent.

The contribution of US exports to the growth of GDP has increased in recent years, but has not been as rapid as that of its famed imports. The appreciation of the dollar on foreign currency markets, the very modest prices of petroleum imports before the rejuvenation of OPEC in 1999, and more than robust consumer demand have all contributed to the huge balance of trade deficits long characteristic of US trade.

As the US economy has become more tightly integrated with world markets, it has been increasingly apparent that trade is a prime driver of economic growth. Frankel and Romer[21] show that the effect of trade on income is quantitatively larger; it is more significant and robust than we have generally suspected. Globalization and the increasingly open world economy played an important role in 1990s prosperity.

Jones[22] attributes US economic growth since 1950 to "increases in educational attainment, increases in research intensity, and the increased openness and development of the world economy." He concludes that when these increases cease and a steady state is reached, growth per capita "can be expected to fall to a rate of approximately ¼ its post-war average."

In more recent research, Frankel and Romer[23] take a new approach to demonstrating the contribution of trade to growth. Because the obvious existence of correlation between trade and growth cannot prove anything about causation, they look to specific geographic characteristics which have important impacts on trade and are plausibly uncorrelated with other income determinants. Measures of important geographic characteristics, viz., country size, distance from trading partners, whether they have a common border, or whether they are landlocked, become determinants of overall trade and are used to estimate instrumental variables establishing the effect of trade on income. Their conclusion is that a "rise of one percentage point in the ratio of trade to GDP increases income per person by at least one-half percent".[24] Income is enhanced by trade because the latter promotes the accumulation of capital, both physical and human. Moreover, trade increases the output associated with a given capital stock. From their results they also infer that within-country trade produces higher incomes, since larger countries with more substantial internal trade have higher incomes. Like international trade, within-country trade raises income at given levels of capital as well as through capital accumulation. Since their results fail to demonstrate that ordinary least-squares estimates overstate the positive effects of trade, they conclude that trade has a large and robust, though only moderately statistically significant, positive effect on income. The interpretation they suggest for their research results is that the case for the benefits of trade is strengthened.

The Intangibles of Economic Growth

Much has been said about the role of the government in maintaining an appropriate economic environment and sustaining through judicious policy the robustness of the economy. MacAvoy[25] looks back to the Reagan era, emphasizing the importance of deregulation and the reduction of government intervention in the marketplace. Heilemann et al.[26] find that "it is natural to see in the liberalization, the

[20] Ullrich Heilemann, Roland Döhrn, Hans Dietrich von Loeffelholz and Elke Schäfer-Jäcklel, op.cit., p.38.

[21] Jeffrey A. Frankel and David Romer: Trade and Growth: An Empirical Investigation, NBER Working Paper No. W5476, 1996.

[22] Charles I. Jones: The Upcoming Slowdown in U.S. Economic Growth, NBER Working Paper No. W6284, 1997.

[23] Jeffrey A. Frankel and David Romer: Does Trade Cause Growth?, in: American Economic Review, Vol.89 (1999), No.3, pp. 379-399.

[24] Ibid., p.394.

[25] P.W. MacAvoy (ed.): Deregulation and Privatization in the United States, Hume Papers on Public Policy 3, Edinburgh 1995, Edinburgh University Press.

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deregulation and privatization, and the institutional changes of the eighties important causes for the boom of the nineties." One should be cognizant of the efforts made during the Bush administration to overcome the fiscal insufficiencies of those and directly prior years. Opinion polls would seem to suggest the inference that all of the growth impetus of the past eight years is exclusively due to the economic management of the White House.

In a sweeping study of new evidence on economic growth, Temple[27] addresses the proximate causes of economic growth, beginning with investments in physical capital, human capital, R&D, and even "wider influences on growth." Under these latter rubrics, he examines "government size" and "social and political factors." Pertaining to size, one could argue that high levels of social security transfers and government consumption could impair an economy's growth performance, but the studies reviewed by Temple did not deliver any compelling evidence of this. A negative link between growth and government consumption has been tested, but as yet no correlation between the two "leaps out from the data".[28]

Theoretical papers have begun to test the relation between social institutions and incentives. Although it is impossible to measure such concepts as social capital or social capability, Temple sees progress in researching these issues. Social and political influences on growth might be measurable as latent variables related to observable indicators. Some attempts are being made to measure these variables as related to economic development in the advanced market economies. Temple argues that simple analytical techniques have a great deal of potential and that recent theoretical work reinforces the case for further study.[29]

Perhaps we will one day have more quantitative understanding of the effects of such policies as deregulation. In the meantime, although many do not doubt that governmental activities have an important impact on growth, it is certainly difficult to demonstrate or quantify it. We will for a time be left to exercise non-empirical judgment in attempting to evaluate these factors.

The Stock Market, the Wealth Effect, and the Boom

The boom of the nineties, according to Heilemann et al.,[30] was driven by private consumption, which in turn experienced a fillip in the form of continual, relatively strong population growth. The growth contribution of private consumption expenditures represented more than two percentage points (or two thirds) of GDP growth. Changes in the age structure of the population produced direct economic effects of considerable magnitude. The number of school-age children, for example, increased again in the 1990s, which produced in that decade an additional 1.5 million jobs in the public schools and another 600,000 in private schools. In the past two major boom periods in the United States, a one percent increase in population has produced a growth rate increase of three percent per year.

The popular media have reported that the "wealth effect," stemming from the continuing, dramatic increase in share prices, encouraged heavy consumption expenditures. So heavy were these expenditures, that private savings remained very small, even becoming negative as the nineties came to an end. The common wisdom was that people no longer felt the need to save, since their stock market earnings were increasing so dramatically. Even where consumers were without significant shareholdings, many were enrolled in private retirement programs and could observe their potential retirement income increasing substantially. One would certainly expect such gains to encourage current consumption.

In the decade beginning in 1990, US households saw their real net worth increase by nearly $15 trillion, or by more than 50 percent. Of total wealth creation in that decade, more than 60 percent was produced by rising stock values.[31] One might be suspicious that this wealth effect was not the sole force driving consumption in the 1990s because stock holdings are highly concentrated and could not directly affect decisions for all consumers. About half of corporate stocks are held by the top 1 percent of equity holders, whereas only 4.1 percent are held by the bottom

[26] Ullrich Heilemann, Roland Döhrn, Hans Dietrich von Loeffelholz and Elke Schäfer-Jäcklel, op.cit., p.25.

[27] Johnathon Temple: The New Growth Evidence, in: Journal of Economic Literature, Vol.37, No.1, March 1999, pp. 112-156.

[28] Ibid., p.145. According to Temple: "Perhaps the only promising macro approach is that of Hall and Jones (1997), who find that high government consumption lowers the level of income, and also point out that in their framework, endogeneity is likely to mean that the effect is understated." Cf. Robert E. Hall and C. I. Jones: Fundamental Determinants of Output per Worker across Countries, Stanford University, manuscript 1997.

[29] Ibid., p.148.

[30] Ullrich Heilemann, Roland Döhrn, Hans Dietrich von Loeffelholz and Elke Schäfer-Jäcklel, op.cit.

[31] James M. Poterba: Stock Market Wealth and Consumption, in: Journal of Economic Perspectives, Vol.14, No.2, Spring 2000, pp. 99-118, here p.99.

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80 percent of households.[32] The consumption that drove the boom was not merely that of the small minority who held significant amounts of shares.

Poterba's review of empirical studies on this question suggests a consensus finding that stock market gains affect consumer spending by a value of about 0.03. This is significant, since even if consumers had spent not three cents, but just 1 cent of each additional dollar of stock market gains from 1989 to 1999, the decade's total consumer expenditures would still have been $96 billion (approximately 1.5 percent) higher. In reviewing the consumption expenditures of the upper income brackets, Poterba shows that luxury goods were in heavy demand.

Lower income groups consumed heavily as well, made confident not only by gains in share values, but by strong general growth as well, although he admits that "there is little empirical evidence at this stage to qualify such an affect".[33] Heilemann et al. are not very impressed with this wealth effect argument, attributing the consumption boom instead to the period's favorable interest rates, which motivated spending for durable goods.

As the market became ever more favorable to shareholders, potential capital gains grew. National income accounting does not calculate capital gains as part of personal income, but if it did, savings would be the residual after deducting consumption from income plus capital gains. As capital gains grow, effective savings grow as well. If these capital gains are not considered part of income, savings are very low or even negative. Heilemann et al. would remind us that capital gains are not really experienced until the shares that produce them are actually sold and the cash is in hand. To the extent that they spent more freely, Americans enjoying large potential capital gains in this period were behaving as if they were counting "illusory" gains as income.

When "Black Friday," April 17th, 2000, introduced an extended process of market adjustment, shares on the Dow had not been nearly as inflated in terms of price/earnings ratios as on the NASDAQ where share prices were clearly overvalued and underwent a distinct market correction. The big concern at that time was whether the economy could yet enjoy a "soft landing" after having soared through the nineties. If shareholders were to perceive their capital gains as threatened and were to reconsider their consumption activity on that basis, reduced consumer spending could end the boom quickly.

Are Business Cycles History?

In the recent past, an impression that the business cycle is largely a thing of the past seems to have been gaining currency. Some see fortuitous changes in the economic environment as tending to make the US economy recession-proof. Zarnowitz[34] presents and evaluates some of the arguments that certain of the factors which promote productivity growth in the economy also tend to promote greater economic stability. He presents seven arguments for the claim that cycles are obsolete, most of which would apply to Germany as well as to the United States. Unfortunately, according to Zarnowitz, all of these arguments "leave ample room for counterarguments".[35]

☐ Downsizing and rationalization are asserted to have enhanced the general stability of the economy. But through cost-cutting and more effective production, effective downsizing leads to growth and, ultimately, to subsequent opportunities for "upsizing." Inflationary pressure and other cyclical problems may also return with the recovery, for as the economy becomes expansive again, upward wage adjustments and associated inflationary pressure will usually follow.

☐ Breakthroughs in information technologies are also thought to stabilize the economy as they induce increased investments and business profits. But these productivity-enhancing effects have yet to be documented quantitatively, and any specific link between information technologies and the stability of economic growth remains unclear.

☐ It is supposed that improved inventory control, especially through just-in-time management techniques, has helped to stabilize the economy. But Zarnowitz finds that constant dollar inventory investments in the 1990s remained about as "volatile and as cyclical" as in the past.

☐ The growth of the service economy adds stability, since the more volatile manufacturing and construction sectors have declined in significance. This is probably true, but with growing international competition in services, they are also becoming more cyclical.[36]

☐ Deregulation of financial and other industries is

[32] Ibid., p.101.

[33] Ibid., p.116.

[34] Victor Zarnowitz: Theory and History Behind Business Cycles: Are the 1990s the Onset of a Golden Age?, in: Journal of Economic Perspectives, Vol.13 (1999), pp. 69-90.

[35] Ibid., p.70.

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believed to have added stability. More competition in airlines, trucking, banking, etc., has enhanced productivity growth, but it is unlikely that further deregulation will promote further stability.

☐ Discretionary macro policies could also be the source of greater cyclical stability. Macro-economic control through interest-rate adjustments has been quite effective in recent years as compared to the earlier effort to manage money growth. But policy agents cannot always anticipate and avert business recessions or financial crises, and policies can still be "wrong, mistimed, or bungled".[37]

☐ The most sweeping argument is that the whole process of globalization has reduced instability. The opening of new foreign markets reduces our dependence on domestic demand as the primary factor in maintaining prosperity. Large-scale importation of resources and products reduces inflationary pressure from domestic markets in periods of rapid expansion. Globalized capital markets are broader and more liquid, reducing the risk of market bubbles and crashes. But at the same time, we have also seen added stock market volatility and vulnerability of the general economy to financial and foreign currency market instability like that experienced in the Asian crisis.

The extension of national into world markets may lend greater impetus to economic recovery and growth, but that does not guarantee that instabilities can be kept out of the brave new, worldwide system.

Weaknesses and Potential Problems

The United Nations[38] assumes that the United States economy will slow down in the near future. For them, the only issue is whether good policy and fortuitous environmental factors will make the landing a soft one. Because the labor market has become very tight, because of the "high valuation of the stock market," it is impossible that the recent growth of consumption could be indefinitely sustained. 1999 witnessed some decline in the economy's utilization of capacity and growing pressure on profit margins, so it is expected that some sectors may already be seeing a slowdown in investment.

The US stock market and financial markets are deeper and more liquid than those in other countries, so that in the past few years, after the onset of the Asian Crisis, a large pool of capital began to flow from the emerging markets to the United States. A boom in equity prices occurred as capital flowed in. This further stimulated the domestic economy via the increased consumer demand it helped produce. Lower interest rates meant that consumption needn't be crowded out by the boom in the markets for capital equipment and high tech products.

The so-called wealth effects discussed above have been enhanced by boom conditions in real estate markets. The latter, as usual, accompanied the stock market boom, increasing the sense of wealth through increased home values. But the consumption frenzy of recent years has extended well beyond those Americans with growing portfolios. Even where there has been no participation in stock market capital gains, the consumption of US households were the driving force of the boom. The level of consumer debt argues that the nation has been on a consumption binge which extended the expansion.

The consumption binge also explains the huge net import situation in the US balance of payments. The worldwide perception of US economic strength has kept the dollar strong in foreign exchange markets, giving American consumers very favorable terms of trade. Other countries have also benefitted from the strong dollar, since the US economy has provided the rest of the world with a robust export market. At the same time, through the greater part of the expansion period the US economy enjoyed very favorable international commodity prices, especially those of petroleum products, until the resurgence of OPEC in 1999.

Unfortunately, the question about the expansion is not whether, but only for how long it can be sustained. Increasing energy prices can be expected to spill over and drive up the prices of numerous other products of which energy is an important component. Fortunately, higher energy prices alone could not undo such a strong expansion; unfortunately, higher energy prices are not the only factor currently working against the boom's extension.

Increasing tightness in labor markets prompted interest rate increases by the Fed after mid-1999. In a tight labor market, the likelihood of significant wage increases impacting price indices was much more apparent. Higher interest rates discourage the consumption of durable goods and put a damper on

[36] Fosler and Stiroh found that whereas the growth of services had merely slowed down in earlier downturns, in the 1981-82 and 1990-91 recessions, services in the business and consumer sectors actually declined. Cf. G. Fosler and K.J. Stiroh: A Sectoral Perspective on Economic Stability, in: Business Economics, Vol.33, No.4, October1998, pp. 46-52.

[37] Victor Zarnowitz, op.cit., p.71.

[38] United Nations, op.cit.

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aggregate demand. All of this threatens at a time when we have been watching a sluggish or stumbling stock market through much of the year 2000.

Through 2000 we observed that the weak Euro is merely the mirror image of the dollar's strength, in turn a reflection of the global perception of US economic strength. When the consumption binge ends and the economy slows, it will become apparent that the dollar can change places with the Euro quite quickly. When that change occurs, dramatically increased import prices will further constrict consumption and raise the prices of imported commodities and many others whose production requires imported parts and materials. This too will prove ballast for an economy with clipped wings.

All of this is merely to suggest that the expected slowdown could be something other than a soft landing.[39] With good fortune, long-term economic adjustments will be made gently and gradually, so that an upward flight might be resumed before too long. Let us hope that is the case, since not only the prosperity of the US is involved; a hard landing could spread hardship through all the global trade and financial networks.

Whither the New Economy?

The use of the expression "New Economy" throughout this paper demonstrates the author's view that, when limited to a few, glamorous high-tech sectors, the term is misused. We have in fact only one economy. If the new sectors of the economy do not interact with and change economic processes in the old sectors, creating a whole new economic structure, we should not talk of a New Economy. Since a series of Kondratieff-type changes have in fact spread their influence through the entire economic organism, the term should be applied to the whole economy.

It should come as good news that even if the New Economy is not recession-proof, its effects will not evaporate in a slowdown. As we watch the diminution of near-term prospects and await the arrival of some painful adjustments, we may be assured that the internet economy and its companion, the relentless process of globalization, are here to stay. They will serve as the basis of a recovery, of an expansion, and of future well-being.

The benefits of the service and internet economy will continue to spread, affecting our partners and competitors on the global scene. Global trade and finance will be important agents in the enhancement of prosperity. At the same time, the prestige the United States has enjoyed early in this bold new era will inevitably have to be shared. Germany and Europe will continue to become more closely integrated in the new economic structures.

Stierle[40] admits that Europe lags behind the USA in terms of the consistency and high level of the growth process, i.e. the macro performance of the economy. Moreover, the share of new technologies in the aggregate capital stock, the ratio of IT and high-tech products to the gross domestic product is substantially lower in the leading European countries than in the United States., and the contribution of these new sectors to national growth is also smaller east of the Atlantic. Per capita expenditures for information and communications technologies in 1999 were only a little over half as much in Europe as in the USA, and the number of internet users per 100 citizens was nearly three times higher in the United States. Stierle assures us, correctly, that this gap will be greatly reduced in the next few years, just as the gap, for example, in the use of mobile telephones narrowed, then disappeared. Stierle is certainly not the only European who would tell us[41] that the growth of the internal European market, its continuing liberalization and deregulation, the introduction of the euro, and continually increasing competitiveness, will all enhance European dynamism. This is all symbolically manifest in the European Commission's strategic initiative "eEurope 2002" to make the use of the internet a more integral part of education programs and to promote e-commerce among member countries.

A parallel development will be the full adoption of the euro; its establishment may prove more competition for the dollar than Americans would wish. If the Europeans continue on the path of economic recovery and expansion and the US continues, hopefully, with its soft landing, the euro could replace the dollar as the engine of growth in the world economy. But for both the Europeans and the United States, the adjustments required by the next few years of the globalization process will prove demanding. Progress is always demanding.

[39] Paul Krugman expresses the dangers inherent in today's conditions cleverly: It is tantalizing to speculate about the tone of public discourse in five or ten years if those who assert that America is now a "bubble economy" like that of Japan a decade ago turn out to be right. It is very easy to imagine how, in retrospect, many economic sins that are now widely regarded as trivial – negative personal savings, a large trade deficit, the role of highly leveraged investors in our financial markets – could be reinterpreted as the American equivalent of "crony capitalism," fatal flaws that ensured the subsequent punishment. Op.cit., p. 174.

[40] Michael H. Stierle, op.cit.

[41] Ibid., p.557.

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