

Global Terrorism and World Political Cycles¹

Arno Tausch

*In this publication, we draw some optimistic, socio-liberal conclusions about Islam in the world system. Countering some alarmist voices in the West, neither migration nor Muslim culture are to be blamed for the contemporary crisis, but the very nature of unequal capitalist accumulation and dependency that is at the core of the world capitalist system. For one, our analysis is based on current thinking on **Kondratiev waves** of world political development inherent in recent work by the International Institute of Applied System Analysis (IIASA) and the NATO Institute for Advanced Studies. We also present analyses in the framework of the debate on cross-national determinants of human well-being in the world system. While we are cautiously optimistic about a socio-liberal, non-interventionist policy alternative, we come to the conclusion that present patterns of global governance, modeled around the neo-liberal Washington Consensus and American hyperpower, are doomed to failure. We present a rigorous re-analysis of United States Department of State data on acts of global terrorism in the framework of Kondratiev cycle waves. We then proceed to an analysis of the determinants of economic growth and ecological and social development in 140 nations with complete data. The data presented show that before the present war in Iraq the **global war on terrorism already showed very positive effects**, and that the strong linear **downward trend in global terrorism**, to be observed during the last two decades, **coincided with rising globalization in both the centers and the peripheries of the world system**, and that the percentage of people with less than \$ 2 a day even declined in the Middle East and North Africa. We also found no systematic interaction between the differentials of growth in the center and the periphery or inequality differentials in the center and the periphery and patterns of global terrorism. Thus, a western socio-liberal, multi-lateral and non-interventionist policy could have won the fight against international terrorism. We then refute empirically Huntington's hypothesis about the incompatibility of Islam and successful socio-economic development. Our publication re-establishes the notion that capitalist development is of cyclical nature, with strong fluctuations every 50 years. For us 1756, 1832, 1885, 1932 and 1975 are the beginnings of new Kondratiev waves, while 1756, 1774, 1793, 1812, 1832, 1862, 1885, 1908, 1932, 1958, 1975, and 1992 are the turning points (troughs) of the Kuznets cycles. Vigorous upswings of the capitalist world economy need to be supported by a tightly organized new world political hegemonic order, while the strength of the downswings and the severity of the depressions always are a function of the waning world political order. We show the fatal interconnection between these world political and world economic 'tsunami waves' in a more systematic fashion. In the most recent*

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phase of capitalism, its 'Casino' character becomes ever more apparent, with a sharp distinction between the winners and losers of the system.

Introduction

In this publication, new quantitative insights on the structures of the contemporary crisis are presented that are largely based on insights of 'critical political economy' of the late 19th and early 20th centuries.

It cannot be precluded that patterns of global terrorism correspond to the more general swings of world politics and economics that are intensely studied by world scholarship (see, e.g., Devezas 2006). The idea of global cycles goes back to the Russian economist Nikolai Kondratiev (1984; 1998). For one, Nikolai Kondratiev's work and personality now received a due international attention. Although many contemporary economists treat the legacy of Kondratiev with utter contempt, Louçã could show that several major figures of economics of the 20th century, among them Economic Nobel Prize winners, were deeply impressed by Kondratiev's research. It suffices to mention here not just Joseph Alois Schumpeter and also in a way Simon Kuznets, but Ragnar Frisch, Gottfried Haberler, Alvin H. Hansen; Walt Rostow; and Jan Tinbergen. The revival of Kondratiev research in the 1960s and beyond is linked to the simulation efforts of Jay Forrester at the MIT in the context of his world-modeling for the Club of Rome. The International Institute of Applied System Analysis (IIASA) developed a highly sophisticated debate on the issue, centered mainly around the works of the physicist Cesare Marchetti and the Portuguese systems scientist Tessaleno Devezas. Devezas' research is particularly noteworthy here, because it combines sociological insights into values and generations with the mathematics of cyclical swings in economy and demography. Forrester reproduced a 50 year pattern for the US economy, based on his System Dynamics National Model (NM-model) which is based on 15 sectors. Marchetti moved the debate away from price series to physical quantities, including production and energy consumption. Unfortunately, as sophisticated and statistically satisfying as this IIASA debate might sound, it has been rather overlooked by both the mostly Marxist and world system supporters of Kondratiev waves and also by their economist detractors.

In this context it should be emphasized that the recent Russian re-reading of Kondratiev also touches the nature of waves in the center and in the periphery. Especially the Russian economist Aleksander Bobrovnikov (1989, 1994, 1996, 1999, 2002) put forward an interesting frame of reference, in fact linking the Kondratiev cycle debate with *dependencia* theory. Bobrovnikov makes the point that transnational capital flows during the beginning downswing in the center to the periphery, where the belated cycle still allows huge profits; during the belated periphery depression transnational capital again flows to the center, thus exacerbating the debt crisis in the periphery. Our publication precisely continues this debate with new data about world development in 1990–2003.

From the quantitative analysis of global conflict and global terrorism, which basically shows that at present the world system is confronted with the period of the deligitimization of the US leadership and rising regional and local conflicts, we proceed to estimate the quantitative weight of such explanatory factors as Muslim culture, transnational migration

and structures of dependency for world economic growth and social development. Again, the relevance of the 'classic' political economy explanations and the center-periphery structure reading of the K-cycles emerges to be relevant.

Re-thinking Kondratiev Cycles

In this contribution, we try to present some new perspectives on the importance of the legacy of this great Russian researcher for the debates about the contemporary global crisis. Let us be precise: Kondratiev downswings were always particularly severe in the periphery of the world system, and the ups and downs of reform and the re-centralization of governments there are closely linked to the Kondratiev cycle. Looking at the growth and development differentials, Bobrovnikov's such important point for world systems governance receives a dramatic illustration (Tausch 2007, based on UTIP and World Bank data from more than 60 countries of the world since 1960). The cyclical swings in the periphery are by far more pronounced than in the center and the depressions more severe. The level of inequality is historically higher in the periphery than in the center, but inequality also increases in the centers. Such comparisons clearly suggest three tendencies:

a) first, a faster growth in the peripheries during the beginning B-phase of the Kondratiev cycle;

b) a more severe depression in the peripheries than in the center;

c) a belated recovery in the periphery.

The very logic of industrial processes and basic innovations, as well as the societal models, connected with them, would suggest building cyclical fluctuations into more general theories of development (Amin 1997). Blast furnaces and other important components of the industrial process, also, have a certain life-cycle, comparable with the Juglar and Kuznets cycle, just as technical innovations are scattered in a non-random fashion along time, coinciding with the Kondratiev cycle (Bornschier 1988 and 1996; for a very comprehensive summary Scandella 1998). There are short term instabilities of 3 to 5 years duration (Kitchin cycles), 8–11 years duration (Juglar cycles), 18–22 years duration (Kuznets waves), and longer, 40–60 years Kondratiev waves. The following dating scheme could be suggested in the light of the Schumpeterian theory tradition (Scandella 1998). Global capitalism since 1740 had the following Kuznets cycles (our calculations based on the untransformed rates of global industrial production growth, 1740–2004), based on polynomial expressions of the 6th order:

1741–1756; $R^2 = 23.5\%$

1756–1774; $R^2 = 36.1\%$

1774–1793; $R^2 = 34.8\%$

1793–1812; $R^2 = 39.7\%$

1812–1832; $R^2 = 16.4\%$

1832–1862; $R^2 = 25.7\%$

1862–1885; $R^2 = 36.3\%$

1885–1908; $R^2 = 56.2\%$

1908–1932; $R^2 = 44.2\%$

1932–1958; $R^2 = 19.1\%$

1958–1975; $R^2 = 60.9\%$

1975–1992; $R^2 = 75.8\%$

We tended to analyze the period between 1756 and 1832 as the 1st Kondratiev cycle of the industrial age, the period between 1832 and 1885 as the 2nd Kondratiev cycle, the period between 1885 and 1932 as the 3rd Kondratiev cycle, and the period between 1932 and 1975 as the 4th Kondratiev cycle. So, according to this logic, we are now in the 5th Kondratiev cycle of the industrial age, with one Kuznets cycle after the depression of the mid-1970s already well behind us, and the second Kuznets cycle since 1992 pointing in a downward direction. The long cycle literature tells us why there is a recurrent pattern of instability in the social orders both at the level of national society as well as at the level of the international system.

Our tests (that we report in Tausch 2007) show that our Bornschier dating scheme much better corresponds to the structure of world production data than the alternative, proposed by Goldstein. This scheme is in line with the dating scheme proposed by Joshua Goldstein, Phil O'Hara, and Ernest Mandel, among many others. However, this dating scheme might very well correspond to the movement of prices.

For us **1756, 1832, 1885, 1932 and 1975** are the beginnings of new Kondratiev waves, while 1756, 1774, 1793, 1812, 1832, 1862, 1885, 1908, 1932, 1958, 1975, and 1992 are the turning points (troughs) of the Kuznets cycles.

It also should be noted that the hypothesis about B-phases of the Kondratiev waves – a very strong linear or non-linear down-ward swing of about 20 years duration, – receives at least some direct confirmation from the untransformed, original new world industrial production growth data, based on Goldstein (1988) for 1740–1974 and UNIDO Statistical Office for 1975–2004. Working with a polynomial expression of the 3rd order, we arrive at the following R^2 for our B-phases of the Kondratiev waves. For all 20 year periods before our measurement points, the B-phase-hypotheses are confirmed:

pre-1756	12.8 %
pre-1832	6.5 %
pre-1885	8.9 %
pre-1932	41.8 %
pre-1975	28.4 %

Although we date the trough in the 1830s earlier than Bornschier, we coincide with his analysis of the 19th century and large sections of the 20th century. Having been written originally in the late 1980s, Bornschier's work is somewhat unclear about the crisis in the last part of the 20th century; we always believed that the culmination point of the stagnation from 1973 onwards was overcome by the Reagan boom of the 1980s and the Clinton period boom. We somewhat differ with other world system scholars on the dating game, for sure:

Table 1. The Kondratiev cycle dating game

a) untransformed original data

	O'Hara	Tausch	Dates suggested by sliding correlation method
1	2	3	4
1 st Kondratiev	1779–1847	1756–1832	1756–1819
2 nd Kondratiev	1847–1893	1832–1885	1819–1862

1	2	3	4
3 rd Kondratiev	1893–1931	1885–1932	1862–1918
4 th Kondratiev	1931–1992	1932–1975	1918–1954
5 th Kondratiev	1992–	1975–	1954–1993
R^2 1 st K	2.59	3.25	4.43
R^2 2 nd K	4.68	1.5	15.77
R^2 3 rd K	24.66	28.71	7.39
R^2 4 th K	8.01	9.34	5.59
R^2 5 th K	33.7	6.32	23.14

b) 9-year sliding averages

	O'Hara	Tausch	Dates suggested by sliding correlation method
1 st Kondratiev	1779–1847	1756–1832	1756–1819
2 nd Kondratiev	1847–1893	1832–1885	1819–1862
3 rd Kondratiev	1893–1931	1885–1932	1862–1918
4 th Kondratiev	1931–1992	1932–1975	1918–1954
5 th Kondratiev	1992–	1975–	1954–1993
R^2 1 st K	32.6	41.3	45.6
R^2 2 nd K	25.2	15.3	27.2
R^2 3 rd K	50.0	43.8	65.6
R^2 4 th K	27.7	39.6	32.7
R^2 5 th K	91.9	70.2	92.0

One of the most intriguing features of the world systems theory is its prediction of the recurrence of global wars in the world capitalist system.

By re-analyzing latest conflict data (great power battle fatalities from all wars, Goldstein 1988 and COW/PRIO 2005[http://www.prio.no/page/CSCW_research_detail/Programme_detail_CSCW/9649/45656.htm]) from 1495 to 2002 and as yet unpublished UNIDO data about the growth of world industrial production 1740–2004 it was shown that the long Kuznets and Kondratiev swings and cycles of capitalist world development that play such an important role in the analysis of global war since 1495 have indeed not ended after the end of Communism, and that instability, and not stability, characterize the world economy, and that there is an indented ‘W’ shaped pattern of global conflict since 1495 that did not end with the end of the Cold War (Tausch 2007).

By now, we all know very well that there were voices that predicted the ‘end of history’ in the 1990s. The world systems approach always took a more cautious line and would never preclude – at least in principle – a repetition of the insane economic cycles and major power rivalries that characterized the course of history since 1450 and which produced three devastating global wars, 1618–1648; 1793–1815; and 1914–1945 (see the by now classic contribution by Goldstein 1988). In view of the methodological critique by several

authors, including Beck (1991) and Silverberg (2005), against the 'long wave school' it would seem appropriate rather to talk about 'tendencies' or 'waves' and not about 'cycles'. Silverberg's recent research paper applies spectral density analysis to two famous world system time series: Modelski's and Thompson's sea power index and the Levy-Goldstein great power fatalities data series. However, we try to show by using Kondratiev's classic techniques of polynomial regressions that there are indeed several cycles, and not one cycle, of global economics and politics.

Kondratiev Cycles and Global Conflict

One of the most startling consequences of the relevance of Kondratiev are the insights of the long cycle schools on global conflict. The international system is indeed characterized according to Goldstein by the following sequence of cycles:

**global war → world hegemony of the dominant power →
→ de-legitimization of the international order →
→ de-concentration of the global system → global war etc.**

The duration of these sub-phases of the international order is approximately one Kondratiev cycle each (an economic cycle of 50 to 60 years duration, see below), so the unit of time of the international system can be symbolized by the expression – one Kondratiev (1K). An entire hegemonic cycle lasts 3 Kondratiev waves.

A more careful re-reading of the world systems approach – especially the writings of Giovanni Arrighi, George Modelski, Andre Gunder Frank and Immanuel Wallerstein – does suggest that the 21st century will be characterized by a further shift of the world economic centers of gravity towards Asia, and that the maintenance of peace of the enlarged Europe to the outside world will depend on the European Union democracy, technical innovation, and the avoidance of what Arrighi has called – in allusion to the concept of power of historical Venice – a '*terra ferma*' constellation, *i.e.* the territorial concept of power and the exploitation of the hinterland – the *terra ferma*. In the history of the world economy, such major geographical shifts of economic activities and of military power – like in 1340, 1560, 1750 and 1930 – were always associated with major wars and with a very deep economic depression.

We agree with Modelski (1999) that global challengers in the world system were always characterized by the interaction of:

- a large army;
- a large economy;
- a closed, controlled society;
- and weak, ethnocentric media.

Russett's hypothesis about the great probability of peace between democracies is an all-important, further element in this debate.

At any rate, the future of the open society in Europe, the exact fulfillment of the Copenhagen criteria of a functioning democracy and market economy in the EU enlargement process, and the future democratization of the Union – also in face of the darker sides of the European heritage and the very idea of an economically united Europe under authoritarian premises under Nazi rule before 1945 – become decisive whether or not Europe will become a global challenger in Modelski's sense, and will determine whether Europe is a new challenger of the new evolving global leadership along the Pacific axis that could fit into the pattern, described by Modelski:

- an oceanic navy;
- lead industries, fiscal strength;
- democratic potential, party system;
- strong active media.

A relatively closed society, combined with high customs, a reliance on military land power, exploitative relations with the internal and immediate external peripheries (the hinterland of Northern Italy before the great Italian wars of the 13th and 14th century, the Spanish colonies and internal peripheries in Hapsburg Europe before the global war 1618, the French internal peripheries and colonies before the Napoleonic Wars, and Germany's 'Drang nach Osten' before 1914) and a relatively weak technological home-base characterized the attempts at world power, while the successful world hegemonies (the United Provinces of the Netherlands, the United Kingdom, and the United States) were each time the practical opposites on all or most of these dimensions: a naval, knowledge-driven and world-market concept of power, a society open to migration, low customs, a large sea power and a smaller, but mobile and disciplined and readily deployable land-army, and a strong technological home-base.

Significant for hegemonic success is also the strong social role of the urban merchant class that is in stark contrast to the ties between the land and capitalism, characteristic of the 'rentier' political economy of Hapsburg Europe, France, and Germany, the historic challengers that lost the world leadership contest.

World hegemonies that characterize the workings of world capitalism arise and they also end. As it is well-known in world system research, especially from the works of Arrighi and Silver, there are signal crises of world capitalism (the usual Kondratiev depressions), and there are terminal crises of the world system, when hegemonies end.

Peaceful transitions from one hegemony to the other are among the most intricate questions of peace research and peace policy of our time.

These moments of world hegemony transformation, as Arrighi and Silver (1984, 1999) and as Boswell (1999) have shown, are especially dangerous culminations of world depressions and are characterized by a subsequent fight for world hegemony, like during the great crash of the 1340s, which marked the beginning of the Genoese age (Arrighi) or Portuguese and Genoese age (Modelski), the crash of the 1560s, which marked the beginning of the Dutch era, the depression of the 1750s and 1760s, which marked the beginning of the British era, and the Great Depression in the 1930s, which was the terminal crisis of British world capitalist dominance (Arrighi 1995). Regulation can be successful, like after 1560, and 1930, and deregulation can be successful, like after 1340, 1760, and – most probably – the 1980s (compiled from Arrighi 1995).

A world-hegemony evolves and declines during at least two Kondratiev waves. We think it is fairly safe to assume that there is no such early immediate terminal crisis of the capitalist system, but that the risk for such a crisis rapidly increases after 2020 or 2030. Even at the risk of gross oversimplification, the following scheme could be drawn.

There seems to be ample evidence, reproduced, among others, in Tausch (2003) that the terminal crises of capitalism, like Tsunami waves of world politics, have devastating consequences for the well-being of the great majority of humanity. Evidence, based on the works of Andre Gunder Frank and Rudolph Rummel suggests that as a consequence

of the terrible world depressions of the 1350s (coinciding with the Black Death) and 1750s, Europe lost significantly its share in total world population, while the earthquake of world politics 1900–1950 had an estimated 187.7 million victims in terms of political repression, genocide and democide, *i.e.* a good part of all the estimated total victims (482 million human beings) of democide, wars and repression in total human history. Among the major world systems researchers of our time, the late Andre Gunder Frank was most active in championing the idea that there are major economic cycles dating back 5000 years in human history. This idea was put forward by him for example in 1994, in an important paper which he presented to the New England Historical Association. A more final word by Frank on these large cycles is to be found, among others, in his *ReOrient* (1998: 248 ff.).

So, where are we now? 1870? 1913? 1938? World systems theory is full of speculation about the future, and much of world systems research writing projects a major global war by around 2020 or 2030. Just let us quote from famous world systems researchers:

a) Goldstein (2005) returned to his ‘conflict clock’ (Goldstein 1988: 259). Looking back on his predictions and his work, he now defines 2000 as the war trough year, to be followed by a 2005 price trough and real wage peak, 2010 an expansion phase, 2015 a production peak, 2020 an investment peak, 2025 an innovation trough and 2025 a war peak, and 2030 a price peak. Goldstein is clear about his prediction about the 2020s as the next real danger zone of world politics: ‘*In my 1988 book I pointed to the period around the 2020s as a potential danger zone, and it still worries me*’ (Goldstein 2005: 8).

b) Chase-Dunn and Podobnik (1995) see a 50/50 chance of global war by around 2020, with the most likely contenders of the US being either a United Europe under German leadership or Japan.

c) Boswell (1999) presents a list of 10 system evolution steps, starting by the relative decline of the United States, followed by imperial rivalry and global war between 2010 and 2020, to be followed by another world system sequence, ending by 2080 or 2090 in yet another cycle of relative decline of the hegemon who won the last world war by 2010/2020 ...

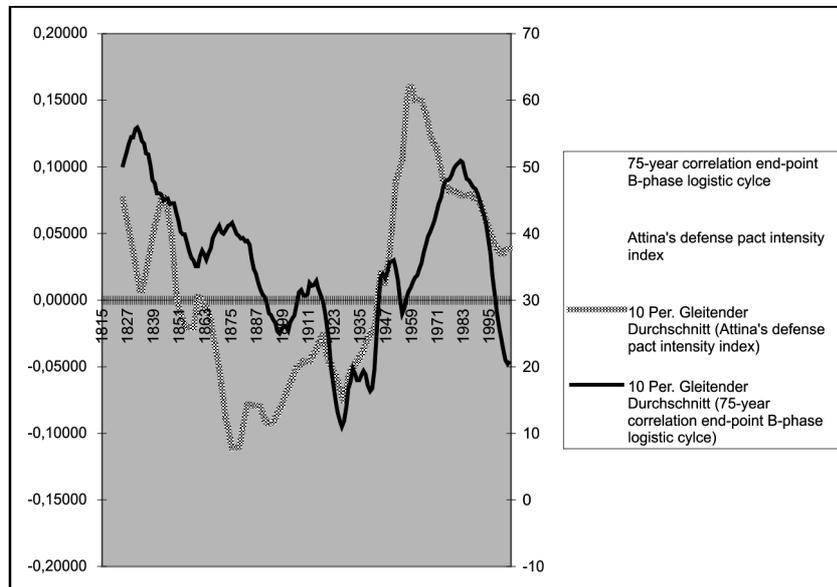
d) Work by Attinà (2002, 2003a, 2003b, 2004, 2005) and Modelski (1987, 1995) also suggests that we most probably will not escape the fatal cycle of global leaderships and global contenders. Since the mid-1960s, the defense pact aggregation index that measures the percentage share of defense pact members in the total number of states in the international system, *i.e.* the control that existing, established mechanisms of world political leadership exercise over global politics, has declined, suggesting that the era of global power by the United States, which was established in 1945, definitely comes to an end and that our era is pretty similar to the era 1850–1878, which was characterized by the de-legitimation of the then British leadership, followed by the de-concentration of the international system and the era of coalition-building between 1878–1914, which ended, as we all too well know, in the catastrophe of 1914.

The Italian political scientist Professor Fulvio Attinà interprets the global political cycles of the world system in accordance with Modelski as:

global war macrodecision → global power execution →
→ de-legitimization and agenda setting → de-concentration and coalition building →
→ global war macrodecision etc.

Attina argues his defense pact aggregation index neatly measures these cycles. We established in that context that the tsunamis of the break-up of the world military order precede the tsunamis of world depressions. We further compared these cycles with the long swing of world economic development and came to the conclusion that these two cyclical movements are roughly in parallel. But the tsunami crisis of world politics indeed, as we already stated, precedes the tsunami economic crisis (Tausch 2007).

Graph 1. The stylized interrelationship between the strength of the 75 year downswing correlations of the logistic cycles and the hegemonic cycle (Attina's defense pact index)



Legend: Potenziell: potential function; polynomisch: polynomial function. Gleitender Durchschnitt: sliding average (10 year sliding averages). The 'sliding 75 year correlation analysis' shows that the hypothesis that there was an end-point in a negative, 75 year downswing period received the strongest confirmation during the world depression of the 1930s. The analysis also confirms that by the late 1860s and the 1980s there were turning points in world long-run capitalist development. The golden periods of the first half of the 19th Century and from 1945 onwards seem to have reached their end. The analysis also shows that the movements in the world political order, measured by Professor Attina's defense pact index, actually **precede** the world economic swings. The breakdown of the world political order precedes the breakdown of the world economic order; a vigorous world political order is a precondition of a vigorous world economic order. All war-related calculations are based on the data on great power battle fatalities from all wars in 000 victims, 1495–2002. The data 1495–1945 (1975) were reported in Goldstein, 1988 (see his definition, page 235 of his book), the data 1946–2002 are based on the war data base as reported by PRIO Oslo: http://www.prio.no/page/CSCW_research_detail/Programme_detail_CSCW/9649/45656.htm, re-calculated for the aims of a comparison of 'great power battle fatalities from all wars'. Great Powers after 1945: the members of the UN Security Council plus Germany. Calculations based on the data provided by Goldstein (1740–1974; based on Goldstein, 1988) and UNIDO data, provided by Dr. Tetsuo Yamada, UNIDO statistical department (1975–2004).

At any rate, the contemporary geographic and systemic selective retreat of the respects for civil rights around the globe – an average positive trend development 1995–2003 notwithstanding – suggests that freedom is on the retreat precisely in those regions, where there were gains in freedom and human rights owing to the transformations of 1989 and the second and third wave of democratization of the 1980s and 1990s, thus partially contradicting the liberal globalist optimism inherent in the analysis by Soysa and Gleditsch (2002). The retreat of democracy and human rights will most probably go hand in hand with a more conflict-oriented foreign policy in years to come. Under the weight of globalization and the openings of markets, the weak economies and societies of the former communist world and several democracies of the South witness a real retreat of civil liberties.

Just as during the world depression of the 1930s democracy could not survive in the region (Polanyi 1957), today the danger arises that instability and not democratization will triumph in the end. The turning points in the long waves between the ascents and decline phases (B-phases) were always the beginnings of political decay in the region, while the ascent phases were associated with authoritarian modernization; time-lags between the Western cycle and the Eastern semi-periphery and periphery have to be taken into account. The decisive-kairos-years are (dates before 1756 from Goldstein, 1988):

1509
1539
1575
1621
1689
1756
1832
1885
1932
1975

The former hegemonic contenders from earlier global wars slowly slide into a non-acceptance of their status in the international system. The real power struggle erupts already soon after the great hegemonic war, and through the ups and downs of the history of the system evolves slowly into the hegemonic challenge. Seen in such a way, not 1989 or September 11, 2001, but Korea and Vietnam could become rather the benchmarks of the future W-structure of conflict in the international arena.

The triumphalism of America being the unrivalled military hegemonic power of our world notwithstanding, we believe that a serious strategic and political science analysis quickly reveals the direct manpower and other military constraints against continued U.S. military and political dominance in world affairs (Adams 2005). It is often said that like Old Rome, America is without parallels in terms of military strength. But such claims are, a simple myth, resting upon military spending figures that just demonstrate that the Pentagon spends a real lot of money converted into international exchange rates that are still favorable to the US Dollar but which are exchange rates untenable in the long run in view of the huge double deficits of the US economy. What is unparalleled in human history is not the ‘bang’ that the US Conventional Forces can deliver on the ground, especially in a guerrilla warfare situation, but the ‘buck’ that went to the Pentagon defense contractors,

indeed an amount really unparalleled around the globe. The US budget deficit is now at 3.46 % of GDP, the current account balance deficit per GDP 4.90 % (2003), as stated by 'Economist' Country Briefings, July 2005. The cumulated public debt of the United States is now 62.43 % of the US GDP. Compare this to the +2.44 % Maastricht budget data when President George W. Bush took office in 2000, as well as the current account deficit that was still only at 4.19 % of GDP the same year. When William Jefferson Clinton handed over the office of the President, the cumulated public debt of the United States was only 57.98 % of the US GDP. What military manpower is concerned, even the 'smaller' wars in Iraq and in Afghanistan show the extreme limits of the current capital intensive U.S. military doctrine, and for manpower reasons alone the US would be in no position to fight several conventional wars at the same time, let alone fighting another major confrontation at the same time as fighting the insurgencies in Iraq and Afghanistan.

The combination of factors that favor war and not peace in the world system could not be more adverse: the relationship between declining world political order (as measured by the Attinà defense pact index), declining world economic growth (as measured by the rates of world industrial production growth), rising war intensity (that only leveled off in the 1990s in order to increase anew, see above) and rising world inequality (as measured by the rising world GINI inequality index, calculated by Schultz) have to be reconsidered. Our hypothesis is – also in view of developments beyond the 1990s – that the belle époque of globalization from 1960–1990 did not bring about a more stable, egalitarian and peaceful world (see our quantitative analysis below).

The De-legitimization of the Contemporary Global Order, Agenda Setting and the Limits of the US Superpower

What does all this mean in terms of the concept of the 'balance of power'? To quote from Colin S. Gray, perhaps, the most influential strategist in the United States military apparatus:

(...) high-tech transformation will have only modest value, because war is a duel and all of America's foes out to 2020 will be significantly asymmetrical. The more intelligent among them, as well as the geographically more fortunate and the luckier, will pursue ways of war that do not test US strengths. Second, the military potential of this transformation, as with all past transformations, is being undercut by the unstoppable processes of diffusion which spread technology and ideas. Third, the transformation that is being sought appears to be oblivious to the fact claimed here already, that there is more to war than warfare. War is about the peace it will shape (Gray 2005: 20–21).

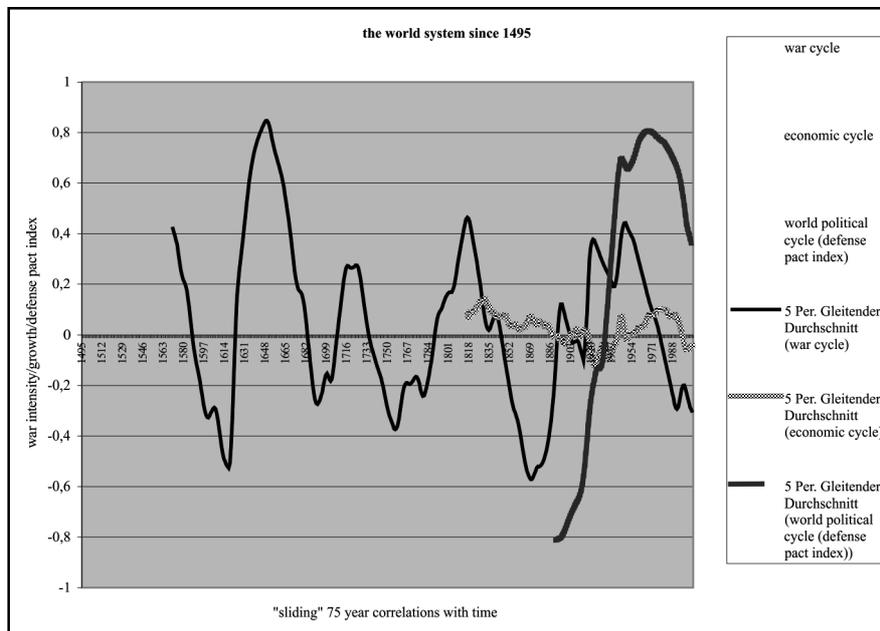
One of the most intriguing features of world systems theory is its prediction of the recurrence of global wars in the world capitalist system. In the 1990s, many people would have thought that after the end of the Cold War, such theories are rather obsolete. With growing military confrontations in Afghanistan, Iraq, *etc.* in the framework of the 'global war on terror' and with the growing military might of China, this theory tradition deserves at least a thorough empirical re-thinking and re-analysis.

The world systems approach takes a more cautious line than 'end of history' predictions and would not preclude – at least in principle – a repetition of the insane economic cycles

and major power rivalries that characterized the course of history since 1450 and which produced three devastating global wars, 1618–1648; 1793–1815; and 1914–1945 (see the by now classic contribution by Goldstein [1988]).

The following graph tries to summarize the deeper underlying logic of war, economics and conflict in the international system, each interpreted as a long logistic cycle of 150 years duration.

Graph 2. The logistic 150 year cycle of world politics, world economics, and global war



The graph clearly shows the 'war peaks' of the 30 Years War, the long French battle for world supremacy of the 18th century and the Napoleonic Wars, and German thrust towards world hegemony 1914–1945. The 'logistic power cycle' shows the waning type of order in the international system in the post-Cold-War-Period, and the end of the long post-World-War II boom years.

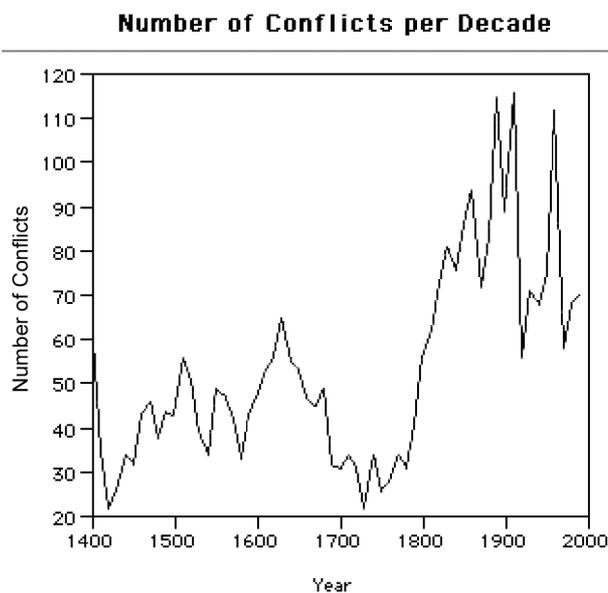
We challenged the neo-liberal assertion that globalization goes hand in hand with global peace by principally showing that battle fatalities from wars, in which the major powers (after 1945 the 5 members of the UN Security Council plus Germany) are involved, swing rhythmically in the world economy since around 1495, and that there is no support for the hypothesis that conflict levels will not increase again after the end of the Cold War in the long run. Thus, the liberal globalist case cannot be maintained on a 1:1 basis, because globalization increased after the 1970s as did battle fatalities from wars, in which the major powers are involved, which point in an upward direction, at least since 1989.

Brecke uses a different methodology as the one used in this study and also different from the study by de Soysa and Gleditsch, but comes pretty much to the same conclusions as we

do, namely that there is no era of peace and stability ‘around the corner’ (Brecke 1999). Brecke bases his research on conflicts since the 15th Century, which he put into ‘conflict catalog’, a listing of all recorded violent conflicts that meet Richardson’s magnitude 1.5 or higher criterion (32 or more deaths).

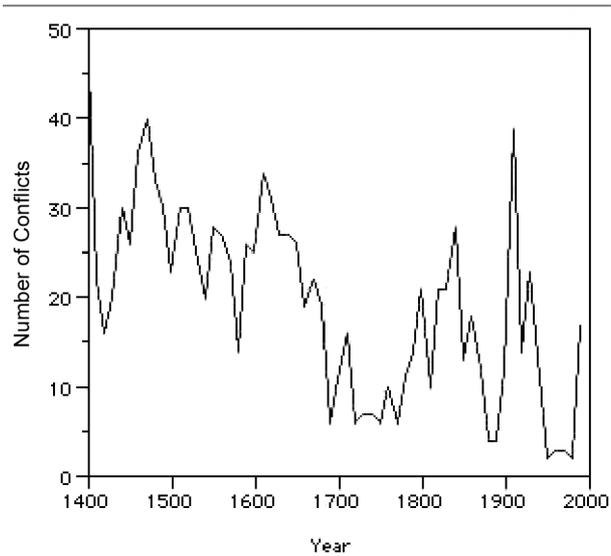
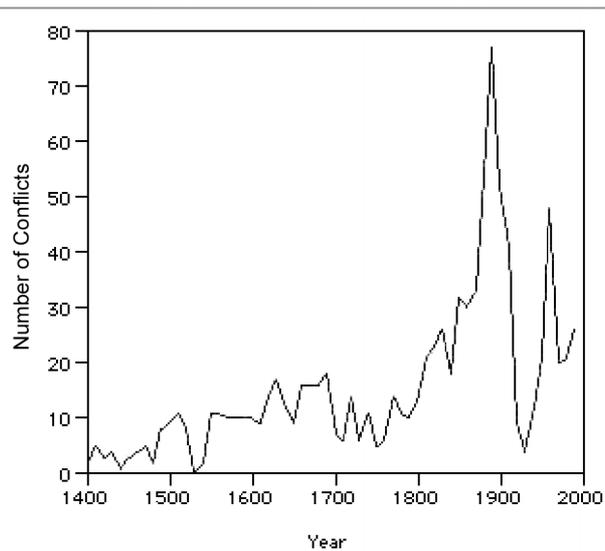
There is one very long and large cycle of conflicts from the mid-1400s to the mid-1700s, and a strongly fluctuating but certainly not linear downward trend from the mid-1700s onwards. In the last period before 2000, there is even an increase in the number of conflicts, and not a decrease. The main results of Brecke’s research paper (1999) on the level of the world system are then:

Graph 3. The world conflict cycles from 1400 to the present



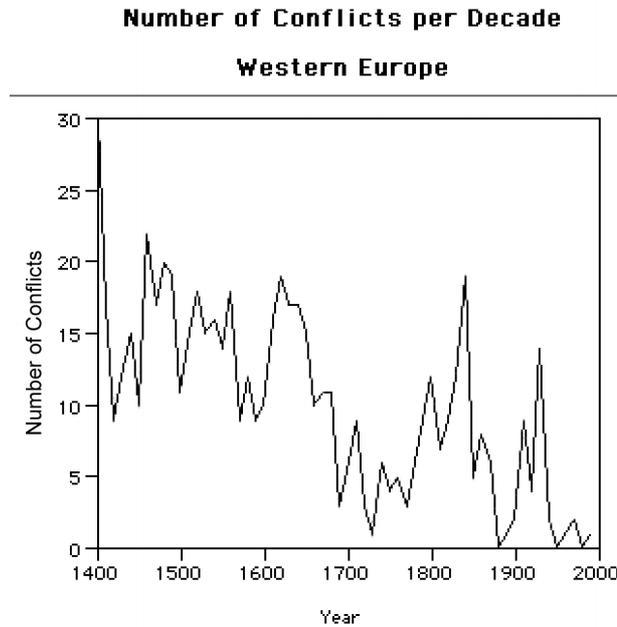
Note: this and the following graphs are reprinted from the internet version of the essay by Professor Peter Brecke (1999).

The two world regions with the highest conflict intensity, Europe and Africa, present the following picture.

Graph 4. The world conflict cycles from 1400 to the present – Europe**Number of Conflicts per Decade****Europe****Graph 5.** The world conflict cycles from 1400 to the present – Africa**Number of Conflicts per Decade****Africa**

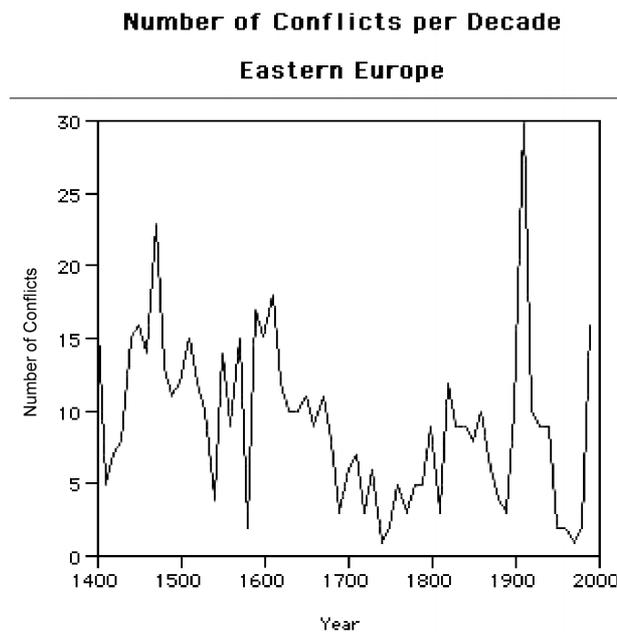
The regional breakdown for Western Europe and Eastern Europe is the following.

Graph 6. The world conflict cycles from 1400 to the present – Western Europe



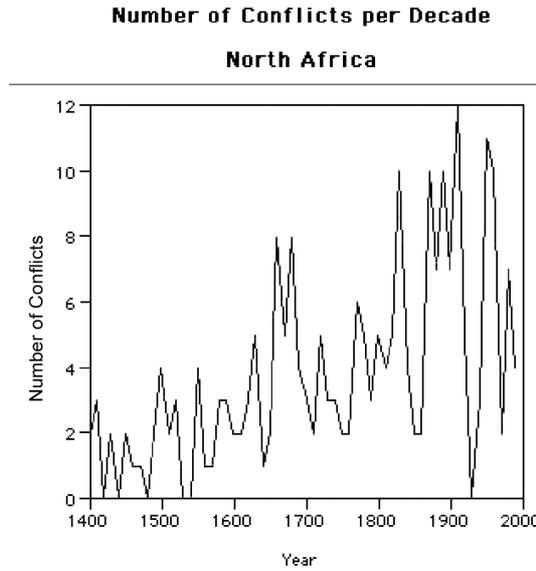
While there is indeed an era of peace and stability in Western Europe after the end of the Second World War, trends in Eastern Europe are more alarming and do not support the hypothesis that ‘the end of history’ is in sight.

Graph 7. The world conflict cycles from 1400 to the present – Eastern Europe



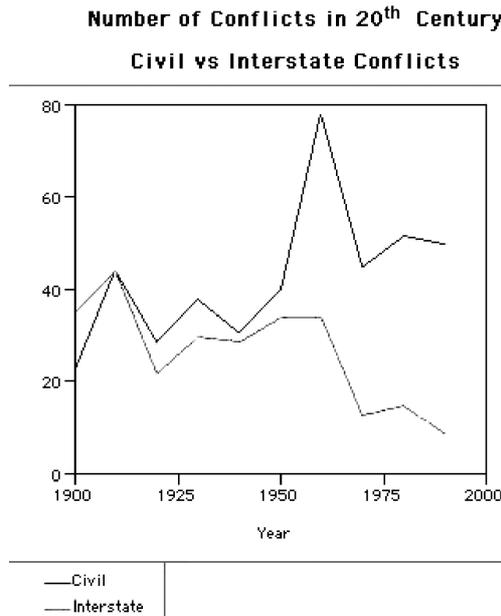
While Western Europe largely stabilized, the conflict potential especially in Africa increased over the last decades, thus de-stabilizing Europe's Southern neighborhood.

Graph 8. The world conflict cycles from 1400 to the present – Northern Africa



The well-known hypothesis about the growth of internal conflicts *versus* interstate conflicts is again confirmed in Brecke's study.

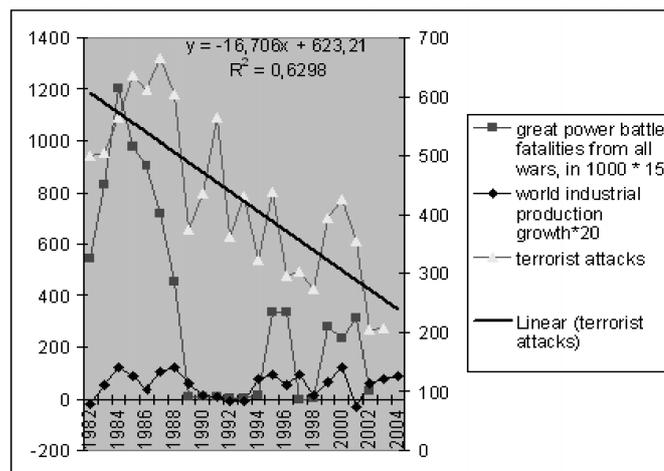
Graph 9. The world conflict cycles from 1900 to the present – civil versus interstate conflicts



Global Terrorism and the Kondratiev Cycle

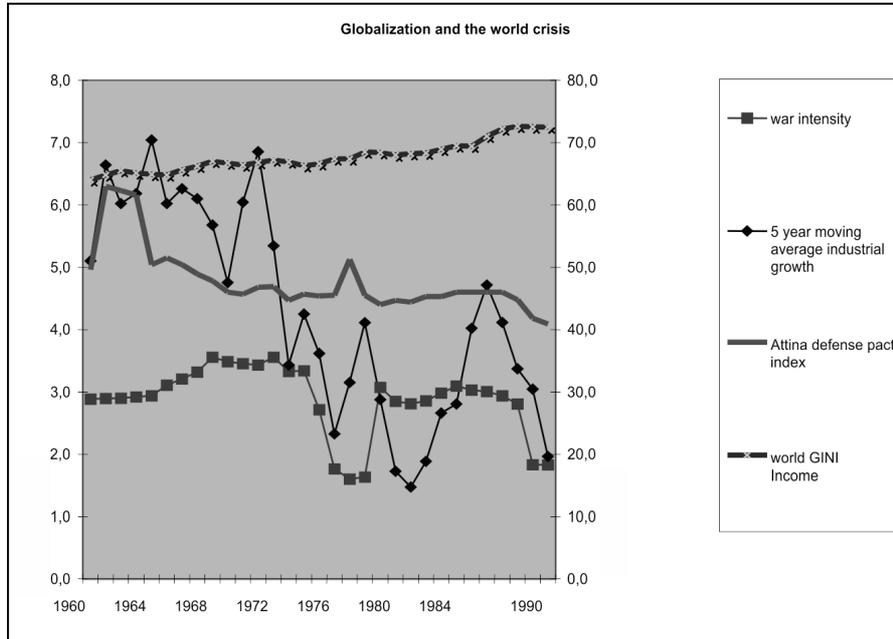
Our reading of the latest available, comparable figures on global terrorism from US State Department sources in the context of the Kondratiev cycle debate is certainly controversial. While our materials show that there a **long-lasting trends** towards conflict in world society, which are a reflection of the underlying hegemonial cycle, and that there are growing regional conflicts as well, the available hard data suggest a very '*Clintonian*' and '*Democratic Party*' reading of events. The fight against international terrorism showed its real fruits, September 11, 2000 notwithstanding, and there was a very clear downward trend in international terrorism (the R^2 for the linear estimate $> 62\%$) before events in Iraq will have overshadowed the performance. We only can guess at the trends after 2003, for the US State Department discontinued its comparable data series and now refers to the Homeland Security data, which do not allow world level aggregations.

Graph 10. The world since 1945: while US State Department data show that global terrorism diminished until the war in Iraq... the underlying conflicts in world society have increased



Sources. For global economics and conflict data see Tausch 2007; data on global terrorism: United States Department of State, available at: <http://www.state.gov/s/ct/rls/crt/2003/>.

.... the underlying conflicts in world society have increased



Legend: Calculations about world industrial production growth are based on the data, provided by Goldstein (1740–1974; based on Goldstein, 1988) and UNIDO data, provided by Dr. Tetsuo Yamada, UNIDO statistical department (1975–2004). All war-related calculations are based on the data on great power battle fatalities from all wars in 000 victims, 1495–2002. The data 1495–1945 (1975) were reported in Goldstein, 1988, the data 1946–2002 are based on the war data base as reported by PRIO Oslo (http://www.prio.no/page/CSCW_research_detail/Programme_detail_CSCW/9649/45656.htm) recalculated for the aims of a comparison of ‘great power battle fatalities from all wars’. Great Powers after 1945: the members of the UN Security Council plus Germany. Gleitender Durchschnitt: sliding average (5 year sliding averages). Polynomisch: polynomial expression. Battle fatality rates: 10th root of the original values. In addition to the previous graph, this analysis now compares the movements of international production and war with Professor Attina's defense pact index and the movements of world income inequality, as reported by Nobel laureate Ted Schultz. The graph shows the dangerous Kairos of world politics that we are confronted with: stumbling economic growth, rising world political tensions, rising world income inequality (world GDP at exchange rates), a withering world political order.

To further confront popular myths, the economic and employment performance in the predominantly Muslim regions of the world, especially in the Middle East and North Africa, was quite remarkable, given the severe constraints like the absence of a lasting peace in the region, *etc.*

Table 2. Decreasing poverty and increasing employment ratios in the Muslim world

Year	1995	2000	2005*	1995	2000	2005*
	(million)	(million)	(million)	share in total employment (%)	share in total employment (%)	share in total employment (%)
USD a day working poor						
World	627.4	582.0	520.1	25.7	22.1	18.3
Central and Eastern Europe (non-EU) and CIS	12.6	11.7	4.3	7.5	7.1	2.6
East Asia	174.8	150.3	104.0	24.7	20.2	13.4
South-East Asia and the Pacific	39.8	30.3	29.7	18.6	12.7	11.4
South Asia	252.9	224.2	202.3	55.1	44.3	35.8
Latin America and the Caribbean	23.5	27.0	28.0	12.5	12.9	11.8
Middle East and North Africa	2.6	3.5	3.5	3.1	3.5	2.9
Sub-Saharan Africa	121.1	134.9	148.3	57.8	57.4	56.3
USD a day working poor						
World	1'354.3	1'396.2	1'374.6	55.5	53.1	48.4
Central and Eastern Europe (non-EU) and CIS	53.8	57.6	21.1	32.0	35.0	12.5
East Asia	452.5	422.6	361.4	63.9	56.9	46.5
South-East Asia and the Pacific	143.6	147.8	150.0	67.2	62.1	57.6
South Asia	419.1	451.2	494.3	91.3	89.1	87.3
Latin America and the Caribbean	68.3	70.9	75.6	36.4	33.8	31.8
Middle East and North Africa	34.3	39.6	42.7	40.8	39.6	36.0
Sub-Saharan Africa	181.9	205.9	229.4	86.8	87.6	87.0

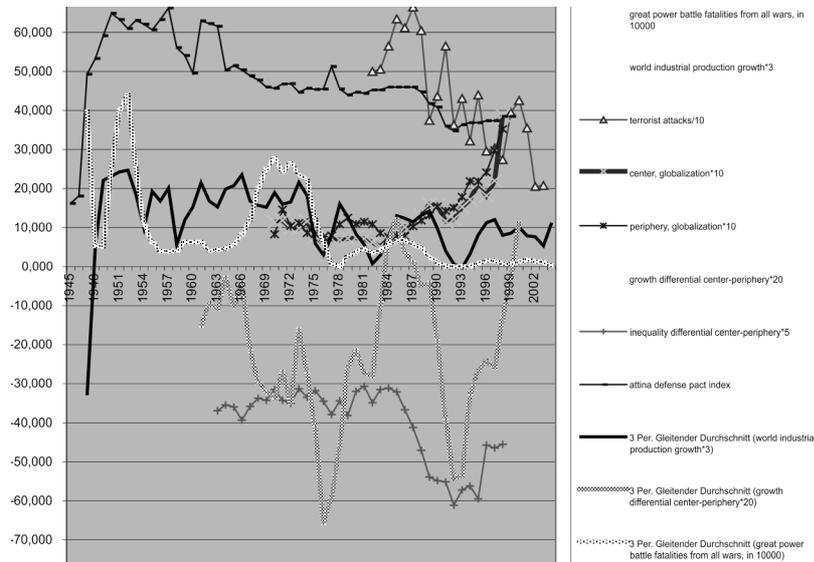
Sources: ILO Trends Poverty Model. For more information on estimation methodology, see S. Kapsos, 'Estimating growth requirements for reducing working poverty: Can the world halve working poverty by 2015?', Employment Strategy Paper, No. 14 (Geneva, ILO, 2004); available on website: <http://www.ilo.org/public/english/employment/strat/download/getb06en.pdf>. Differences from earlier estimates are due to revisions of the IMF estimates of GDP growth used in the model as well as revisions in the labour market data used. *2005 are preliminary estimates.

Region	Change in unemployment rate (percentage point) 2000–2005*	Unemployment rate (%)			GDP growth rate (%)			Employment-to population ratio (%)		Annual labour force growth rate (%) 1995–2005*	Annual GDP growth rate (%) 1995–2005*
		1995	2004	2005*	2004	2005*	2006 ^p	1995	2005*		
World	0.0	6.0	6.3	6.3	5.1	4.3	4.3	62.8	61.4	1.6	3.8
Developed Economies and European Union	0.0	7.8	7.1	6.7	3.3	2.5	2.6	55.8	56.4	0.7	2.6
Central and Eastern Europe (non-EU) and CIS	–0.4	9.4	9.5	9.7	8.2	5.7	5.5	55.5	52.1	0.1	4.0
East Asia	–0.2	3.7	3.7	3.8	8.7	8.0	7.5	75.2	71.7	1.0	7.6
South-East Asia and the Pacific	1.2	3.9	6.2	6.1	6.1	5.1	5.4	67.2	65.8	2.2	3.8
South Asia	0.2	4.0	4.7	4.7	7.1	7.1	6.4	58.9	57.2	2.2	5.8
Latin America and the Caribbean	–0.5	7.6	7.4	7.7	5.5	4.0	3.8	59.2	60.9	2.5	2.8
Middle East and North Africa	–0.7	14.3	13.1	13.2	5.4	5.0	5.3	44.2	46.4	3.5	4.4
Sub-Saharan Africa	–0.3	9.2	9.9	9.7	5.4	4.5	5.5	69.0	66.7	2.4	3.9

Source: ILO. Global Employment Trends Model, 2005. IMF. World Economic Outlook, September 2005; see also note to table 1. *2005 are preliminary estimates; p = projections.

Available data do not permit any other causal inferences about the downward trend of global terrorism than the hypothesis, to be gained from a visual inspection of the data, that **globalization** in both the centers and the peripheries increased dramatically while terrorism in fact **decreased**.

However, as we will show below, it is equally clear that neo-liberal globalization creates its contradictions and disturbances, and *ceteris paribus* negatively affects the overall development performance, while Muslim population per total population or membership of a country in the Organization of Islamic Conference – *again ceteris paribus* – even brings about positive performances in terms of economic growth, human development and the environment.

Graph 11. Global terror and world political cycles

Political Conclusions

Present attempts to stabilize the world order by bringing in the major Western industrialized countries plus Russia (the so-called G-8, composed by France, United States, United Kingdom, Russian Federation, Germany, Japan, Italy, Canada, European Union) must face up to the fact that these countries represent a declining part of world purchasing power. The rise of Asia makes the present G7/G8 structure increasingly irrelevant.

An interesting counter-position to overcome the present world governance inequalities is the G-20, largely created under the influence of the Chinese foreign policy. The members of the G-20 are the finance ministers and central bank governors of the following 19 countries: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, Saudi-Arabia, South Africa, Turkey, the United Kingdom and the United States. Another member is the European Union, represented by the Council presidency and the President of the European Central Bank. The managing director of the IMF and the president of the World Bank, plus the chairpersons of the International Monetary and Financial Committee and Development Committee of the IMF and World Bank also participate in the talks as ex-officio members.

Some real 'ascending dragons' are outside the G-8 group. We can only underline here the point, driven home by the eminent US military strategist Colin S. Gray, who was an architect of President Ronald Reagan's armament strategy in the 1980s:

The menace of major, if not necessarily decisive, interstate war will return to frighten us when great-power rivals feel able to challenge American hegemony. If you read Thucydides, or Donald Kagan, you will be reminded of the deadly and eternal influence of the triad of motives for war: 'fear, honor, and interest'.

Unquestionably, there has been a radical change in the character of the dominant form of terrorism since the end of Cold War. The roots of this phenomenon lie in a crisis within the Islamic domain. However, it is ironic that the United States contributed hugely, though inadvertently of course, to al

Qaeda's development with its vast level of support for the holy warriors who defeated the Soviets in Afghanistan. Strategists should never forget the peril of ambush by the malign workings of the law of unintended consequences.

Al Qaeda is justly regarded today as the defining threat of this era. The catastrophic events of 9/11 certainly brought down the curtain on the strategically somewhat aimless interwar decade of the 1990s. But does the emergence of such terrorism signal an enduring change in the character of warfare? The answer has to be a resolute no. No guarantees can be offered, but it is as certain as anything can be in the inherently uncertain world of international conflict that al Qaeda will lose, and lose decisively. It will be beaten, but not by the United States and assuredly not by the US armed forces. Al Qaeda will be defeated by fellow Muslims devoted to moderate and modernizing policies (Gray 2005: 22–23).

Following our reasoning, inspired by world system theory and world system governance, the 'West' should try to accommodate as best as possible at least the legitimate aspirations of the rising world Muslim powers, like Indonesia, Turkey, Iran², Saudi-Arabia, Egypt, Bangladesh, Malaysia, Algeria and Morocco. The policies of Turkish accession to the European Union and the European Neighborhood Policies with the Mediterranean countries in the so-called Barcelona process have no alternative.

What is also really at stake in the forthcoming South eastern enlargement of the European Union to integrate Turkey is precisely to bridge the gap in these structures of global governance to include the largest Muslim economy of the globe into the structures of 'global governance'. Europe would be well advised to evaluate the possible positive repercussions of the integration of the world's largest Muslim economy into its fold also from this perspective. The top 18 global players control 90 % of the world's military expenditures. Likewise, global purchasing power is very unevenly distributed. In fact, the top 18 entities of the world economy – 17 nation states plus the EU-25 – again control 90 % of global economic power, while the rest of the world just has 10 %. However, there are serious imbalances among these world top power holders, insofar as the military power of the United States, Saudi Arabia, Russia, Turkey, Iran, Pakistan and China is not (as yet) supported by sufficient economic power, while in world military expenditure terms, the EU-25, Japan, Mexico, Canada, Brazil, Indonesia and Argentina are dwarfs in comparison to their gigantic economic status. It is to be expected that these imbalances will be closed some way or the other during the coming years.

What does all this mean in terms of the concept of the 'balance of power'? To quote again from Colin S. Gray:

Where Is the Balance of Power? (...) America is the hegemon by default. (...) As noted already, the past 15 years comprised principally a postwar, or interwar, period. The political and strategic behavior of those years reflected the temporary context provided by a world abruptly deprived of its balance-of-power architecture. (...) We can predict that although the transformation push may well succeed and be highly impressive in its military-technical accomplishments, it is likely to miss the most vital marks.

There are a number of reasons for this rather harsh judgment. First, high-tech transformation will have only modest value, because war is a duel and

² Integrating Iran under the present regime with its tendencies to negate the Holocaust, *etc.* is morally out of the question. The present author hopes that at the end of the day the Clergy will see to it that the regime returns to the conciliatory policies of Ayatollah Khatami [written August 31, 2006].

all of America's foes out to 2020 will be significantly asymmetrical. The more intelligent among them, as well as the geographically more fortunate and the luckier, will pursue ways of war that do not test US strengths. Second, the military potential of this transformation, as with all past transformations, is being undercut by the unstoppable processes of diffusion which spread technology and ideas. Third, the transformation that is being sought appears to be oblivious to the fact claimed here already, that there is more to war than warfare. War is about the peace it will shape (Gray 2005: 20–21).

Europe's economic power would suggest that Europe increases its share in global military expenditures by 4.7 %, while America's economic power, measured in the share of the US in world purchasing power, does not support their high share in global military outlays by more than 8 %.

Times and times again there was evidence in the literature that globalization leads to a cycle what Fernando Henrique Cardoso once termed:

- there is a financial and technological penetration by the developed capitalist centers of the countries of the periphery and semi-periphery;
- this produces an unbalanced economic structure both within the peripheral societies and between them and the centers;
- this leads to limitations on self-sustained growth in the periphery;
- this favors the appearance of specific patterns of class relations;
- these require modifications in the role of the state to guarantee both the functioning of the economy and the political articulation of a society, which contains, within itself, foci of inarticulateness and structural imbalance.

We have shown elsewhere (Tausch and associates, 2001–2006) that uncontrolled globalization leads to no end of the problem of structural violence. If we really want to achieve long-lasting breakthroughs in 'global governance', we have to reconsider the theoretical and practical implications of the 'CEPAL/ECLAC' – alternative approach to global governance, and not simply rely on the forces of 'world economic openness'. The synthesis of our empirical research results allows the hypothesis that the mobilization of internal savings and an active and stronger state, and less uncritical reliance on direct foreign investments, as was correctly foreseen by the early CEPAL/ECLAC-school (Flehsig 1987, 1994, 2000; Prebisch 1983, 1986, 1988a, 1988b; Singer 1971), are still the most efficient tools of 'global governance'. With neo-liberal economic and social governance continuing on an unabated scale, and with the world hegemonic power play by the United States entering the limit zone of its feasibility, the question about world systems governance transition enters the stage.

In their world-systems-based analysis of the spiral of capitalism and socialism, Boswell and Chase-Dunn (2000) arrive at the conclusion that the European Union would be best fitted to become an engine of socially progressive transformation of the world system. Such an analysis would find lots of sympathy among labor-oriented or social-movement oriented circles on both sides of the Atlantic and beyond, and is also reflected in various other 'denominations' of the world systems profession, like in the statements by Samir Amin, who – although very critical of the Union in its present form – speaks about the necessity for Europe to become an alternative pole in the world economy, characterized by the tendencies towards unfettered globalization.

The European role in transforming the present-day western-biased global governance system cannot be underestimated: the European Union as the driving force behind a movement towards global governance, as the only and reasonable alternative to the

workings of the capitalist world system and its tendencies towards inequality and conflict, was on the minds of several world system writers. This scenario is the policy-option and practical end-result of the assessment of future trends in the world system, presented by Boswell and Chase-Dunn (2000). Although there is a wide agreement in the literature on the need of a transition of the world system to a system of global governance (see Kiljunen 2000), the ways to achieve this are more or less a theme for speculation.

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