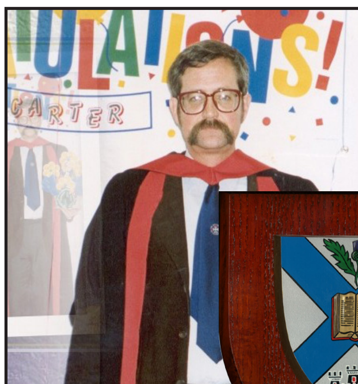
The New Economy 1997-98



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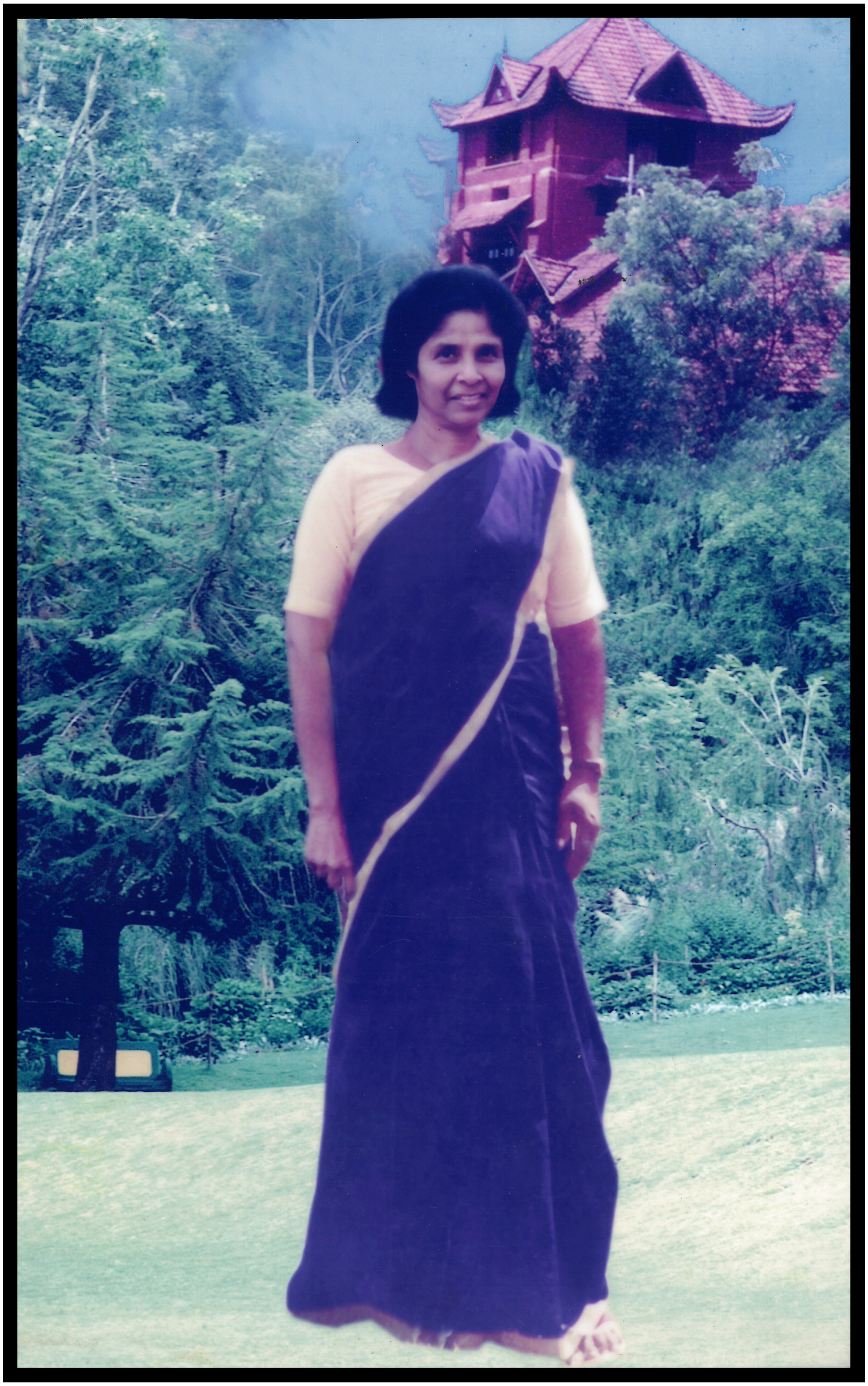
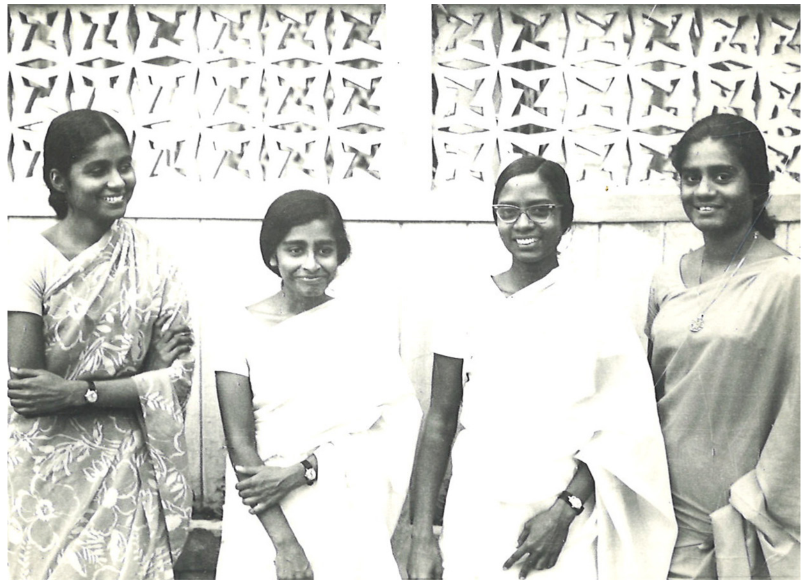


In the Summer of 2017, Salma traveled to Italy and stayed in Rome, near the Vatican. She presented her scholarly husband's books and writings to the Vatican Library. In September of 2017 she received a thank you letter from Pope Francis expressing appreciation, acknowledging the gift of inscribed copies of Dr. Ben Michael Carter's writings with his personal photo with the Papal seal.

Salma (blue saree), Mema (red saree), Rarul (green saree)

Mema (red saree) , Salma (blue saree)



(Left to right) Arumani Carunia, Mema Carunia Urani Carunia, Ravi Carunia

(Left to right) Cooti Carunia, Salma Carunia Valerie Carunia

Inimai Carunia & Salma Carunia

THE NEW ECONOMY and the Asian Crisis of 1997/98

The world has entered, or is entering, a new economic paradigm, a post-industrial and very libertarian system defined by words or phrases like "globalization," "free trade," "international finance," "services," "portfolio investors," and "information technology." As is the case with most such developments, this one was not planned. Instead it unfolded in unexpected ways from circumstances that rested on a very different reality described by words like "industrialization," "manufacturing," "goods," "tariffs," "banks," and "national economies." The new economy, because it is new and because it evolved naturally and, at first, almost invisibly, is not well understood, but economists and financiers generally agree that we are in the midst of a breakdown of this new system. In this study I intend first to sketch and describe this breakdown, and second to offer an analysis of what happened. I also offer this prediction: although to date economies in the West have proved largely resistant to the economic recession in Asia, 1999 will see a recession in North American and European economies, a recession that will be long-term and fraught with grave political risks in these parts of the world. Because the outlines of the new economic model have become increasingly clear since the fall of the Soviet Union, the discrediting of socialist ideas, and the dismantling of socialist economies, this crisis will imperil the newly dominate libertarian capitalists. What we risk is nothing less than the resurrection of some kind of socialist pattern over much of the world, particularly among the emerging economies.

The Roots of the New Order

World War II exploded in the midst of a global depression that had been accentuated though not caused by the collapse of the Wall Street stock market in 1929. Because it occurred in the midst of a severe depression, and because it left the economies of Asia and Europe shattered, many expected the post-war years to find both victors and vanquished returning home to hard times. That this did not happen was due in part to a program of monetary regulation devised at Bretton Woods in 1944, in part to the General Agreement of Tariffs and Trade (GATT) signed in Geneva in 1947, and in part to the Marshall Plan which went into effect in 1948. Taken together these strategies were to lay the foundations and define the parameters of a period of unparalleled prosperity that was dominated by the United States, that saw the organization of the European Common Market, that restructured West Germany and Japan into economic giants with controlling interests around the world, and that lasted into the early 1970s. In other words, the prosperity of the post-World War II decades was planned.

The first of these programs was created by the United Nations. In July 1944 the United Nations Monetary and Financial Conference met at Bretton Woods, New Hampshire, in the United States. Known as the Bretton Woods Conference or simply as Bretton Woods, the meeting resulted in the birth of the International Monetary Fund (IMF) to promote monetary cooperation, and the establishment of the International Bank of Reconstruction and Development (the World Bank) which opened its headquarters in Washington, DC, in 1945. The purpose of the IMF was to secure currency stability and convertibility by seeking to control international exchange rates and by assisting countries which had balance-of-payment difficulties. A nation which wanted to draw on the fund could sell an equivalent amount of its own currency to the IMF in exchange for foreign reserve currency or for gold.[1] This formalized a practice that had become common after World War I. Subsequent to that conflict, foreign central banks began to accept some foreign currencies – primarily US dollars and British sterling – instead of gold.[2] Bretton Woods representatives had hoped to re-establish the gold standard that prevailed prior to World War I but in the end settled for a modified version of the post-World War I situation. Foreign currencies were to be valued against a gold standard fixed at US $35 an ounce.[3]

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[1] *Encyclopedia Americana* (1977), "Banks and Banking," section 25 "International Monetary Fund" by Miroslav A. Kriz, pp. 198 - 199

[2] *The Wall Street Journal Europe,* "Redeem Us With a Cross of Gold" by Lewis Lehrman and John Mueller, Vol. XII, No. 112, Monday, July 11, 1994, p. 10

[3] *Ibid.,* "As Good As Gold" by Wayne Angell, Vol. XII, No. 122, Monday, July 25, 1994, p. 6

This mixed system was the child of Harry Dexter White of the US Treasury Department and was intended to secure some level of order in the international money markets.[4] However, because no free market in gold existed, the US Federal Reserve was not required to adjust its currency to fluctuating gold supplies. This meant that the dollar was not moored to gold even though the dollar was to be Bretton Woods' reserve currency. Wayne Angell, Federal Reserve governor from 1986 to 1994, has argued that this divorce between the dollar and gold was the flaw that eventually led to the collapse of Bretton Woods in August 1971.[5] The collapse of the gold exchange standard enforced under the Bretton Woods agreement has put the world under a regime of "fiat currencies" managed by central banks and subject to the caprice of political systems,[6] and this, as we shall see, increased the power of politicians who could use economic issues to leverage other policy concerns.

Its planners hoped that the IMF, imperfect as it was, would nevertheless provide a means for curbing inflationary pressures, but in the post-World War II era, in part because of the vast social welfare systems put into place by Western governments at the close of the war, and in part because military spending remained high throughout the Cold War, those pressures were intense. A. J. Brown points out that the global inflationary rate between 1953 and the 1970s was the highest peace-time rate in history.[7] Rising at an average annual rate of 3.2%, consumer prices more than doubled between 1944 and 1971.[8] The collapse of the Bretton Woods system in the summer of that year forced the United States to devalue its dollar throughout the 1970s and again in the 1980s[9] under the pressure as its role as reserve currency. Between 1971 and 1993, the dollar lost 60% to 70% of its value against the German mark and the Japanese yen.[10] And because the dollar was the international reserve currency, such devaluation fueled the global inflationary surge. However, there is little doubt that Bretton Woods during the 1950s and 1960s was an effective vehicle for slowing inflation and that it did help nations, particularly the British after 1956, overcome currency crises.

The second program, the GATT, was concerned to reduce the high tariffs which resulted from the passage of the Smoot-Hawley Tariff by the US Congress in 1930 and Britain's decision a year later to abandon its own free trade policy. Originally signed by twenty-three countries, the GATT by the end of its eighth round of negotiations completed in Punto del Este, Uruguay, in December 1993 represented the trading interests of one hundred-and-fifteen nations. Under its provisions world trade boomed. Even the Untied States, which in the 1950s had conducted relatively little international trade, had by 1990 seen exports rise to make up 10% of its gross national product.[11] The GATT itself was superseded when an agreement of its own making was signed in Marrakech, Morocco, on April 15, 1995, to create the World Trade Organization.

The third factor, the Marshall Plan, was revealed by President Truman's Secretary of State George C. Marshall at Harvard's graduation ceremony in 1947. Its goal when it began to function in 1948 was to capitalize the rebuilding of Europe and to foster that continent's integration into a single trading bloc that could act as a rampart against Soviet expansion. When recovering Europe through the Treaty of Rome

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[4] *Ibid.*, "How to Save the Dollar" by Judy Shelton, Vol. XII, No. 117, Monday, July 18, 1994, p. 6

[5] *Ibid.*, "As Good As Gold" by Wayne Angell, Vol. XII, No. 122, Monday, July 25, 1994, p. 6

[6] *The Wall Street Journal*, "Money Men Find Little Balm in Washington" by George Melloan, Vol. CII, No. 68, Tuesday, October 6, 1998

[7] *The New Encyclopedia Britannica* (1981), Vol. 9, "Inflation and Devaluation" by Arthur Joseph Brown, p. 564

[8] *The Wall Street Journal Europe*, ""Redeem Us With a Cross of Gold" by Lewis Lehrman and John Mueller, Vol. XII., No. 112, Monday, July 11, 1994, p. 10

[9] *Ibid.*, "The Curse of Being a Reserve Currency" by Lewis Lehrman and John Mueller, Vol. X, No. 236, Tuesday, January 5, 1993, p. 6

[10] *Ibid.*, "As Clinton Spends, The Dollar Weakens" by Allan H. Meltzer, Vol. XII, No. 106, Friday-Saturday, July 1-2, 1994, p. 10

[11] *Ibid.*, "Competitiveness, a Dangerous Obsession" by Paul Krugman, Vol. XII, No. 22, Tuesday, March 1, 1994, p. 6

formed the Common Market in 1957, the Marshall Plan could count itself one of the most successful exercises of US economic power in history.

As we have suggested, however, this system, as most systems do, contained the seeds of its own demise. Within two-and-a-half decades the circumstances it helped to create overran its ability to cope with them, and its failure became evident on August 15, 1971, when President Nixon, under intense pressure from financial speculators, refused to continue to defend the Bretton Woods US $35 an ounce price for gold. From then to the present the world economy has operated under a system of floating exchange rates, and, as Paul Volcker pointed out at the 50th annual Stamp lecture at the University of London, floating exchange rates work poorly and are subject to precipitous and unpredictable fluctuations.[12] They tend to undermine the credibility of currencies and create what Judy Shelton, professor of international finance at DUXX Graduate School of Business Leadership in Monterrey, Mexico, has called "a foundation of quicksand."[13]

Nobel laureate Milton Friedman has argued that with Nixon's decision the IMF lost the only function it had and should have been discontinued. But instead of disbanding, the IMF, in the manner of bureaucracies, perpetrated itself by redefining its purpose. It sought to transform itself into an economic consultant, lending money and giving advice to troubled nations.[14] Michael M. Phillips described it this way:

> The IMF works much like a bank. In simple terms, member nations deposit money with the institution, which lends it to members who need help supporting their currencies or paying their debts. In exchange, the IMF demands deep economic reforms intended to keep countries from getting into trouble again.[15]

Time described the IMF as "both a bank of last resort and a fiscal reform school for wayward economies."[16] In this sense "the IMF is a house of pain...because it tends to countries that are so deep in crisis that the only options are ones that hurt."[17]

And Prof. Friedman contends, the 1994/95 Mexican economic crisis was the catalyst that gave immense credibility to the IMF it its new role.[18]

The Mexican Economic Crisis

Doesn't seem to Read Right

1998 was a watershed year for the international financial system. By mid-August on 1998, David Hale, chief economist of the Zurich Group in Chicago, the crisis in East Asia "the most severe shock to the global economy since the end of the Cold War."[19] On Monday, September 14, 1998, President Clinton called the current global economic crisis the "biggest financial challenge facing the world in half a century."[20] The next day, *The Wall Street Journal* published an adapted version of George Soros' testimony to the House Committee on Banking and Financial Services. In this article Soros worried that the

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[12] *The Wall Street Journal*, "Toward Monetary Stability" by Paul Volcker, Vol. XCVII, No. 17, Wednesday, January 24, 1996, p. A14

[13] *Ibid.*, "Time for a new Bretton Woods" by Judy Shelton, Vol. CII, No. 75, Thursday, October 15, 1998, p. A22

[14] *Ibid.*, "Markets to the Rescue" by Milton Friedman, Vol. CII, No. 73, Tuesday, October 13, 1998, p. A22

[15] *Ibid.*, "The Outlook: IMF and Critics Debate Accounting Principles" by Michael M. Phillips, Vol. CII, No. 62, Monday, September 28, 1998, front page (emphasis added)

[16] *Time*, "IMF to the Rescue" by Richard Lacayo, December 8, 1987, p. 38

[17] *Ibid.*, p. 40

[18] *The Wall Street Journal*, "Markets to the Rescue" by Milton Friedman, Vol. CII, No. 73, Tuesday, October 13, 1998, p. A22

[19] *Ibid.*, "Asia's Crisis Fuels US Boom" by David Hale, Vol. CII, No. 32, Friday, August 14, 1998, p. A14

[20] *Ibid.*, "Review & Outlook: Sex, Lies and the IMF," Vol. CII, No. 53, Tuesday, September 15, 1998, p. A22

system of global capitalism "is coming apart at the seams." Financial markets, he wrote, "are inherently unstable," and that inherent instability was now spiraling out of control. Although "the meltdown of Russia" was his immediate primary concern, the Asian economies provided the backdrop for that concern. Soros wrote that some Asian stock markets had suffered worse declines than Wall Street in 1929 and that these declines had been followed by economic collapse in those countries.[21] The Asian crisis was triggered in the summer of 1997 when Thailand devalued the baht,[22] but as Milton Friedman argues, it had its roots in the Mexican bailout of 1995.[23] Therefore, if we would understand what is happening today, we must begin with the Mexican economic crisis of 1994/95.

The Mexican economic crisis in 1994 was Mexico's fourth in less than twenty years. The other three occurred in 1976, 1982, and 1987.[24] The 1994 crisis began innocuously enough with President Carlos Salinas' decision to stabilize the peso and bring public spending under control.[25] For six years, between 1988 and 1994, the Mexican government anchored its economic policy on its strategy to stabilize the peso. Both labor and business supported the policy by agreeing to limit wage and price increases, expecting that a sound peso would pay off in the long run through higher growth and lower inflation.[26] As an example of such cooperation consider the following: President Salinas' approach disproportionately benefited Mexico's wealthiest citizens. Between 1987 and early 1994 the value of the Mexican stock market increased by $191 billion. About three quarters of that equity was held by Mexicans. Indeed, the number of Mexican billionaires rose from two in 1991 to 13 in 1993. Nevertheless, by the end of 1992 less that 0.2% of Mexicans had stock investments. After adjusting for inflation, the minimum wage in Mexico dropped 24% between 1988 and early 1994, and between 1989 and 1994 40% of Mexicans saw their total share of the nation's wealth fall from 15% to 12%.[27] Yet, though Mexico's growing economy did not benefit everyone, the economy was growing and many Mexicans hope that eventually they would profit from that growth. Salinas' approach seemed to be working. This in turn attracted a large amount of foreign investment.

Between 1990 and the end of 1994 foreign buyers purchased $55 billion worth of shares on the Bolsa, Mexico's stock exchange.[28] In 1993 alone, 30% of the $47 billion that foreign investors poured into developing economies flowed to Mexico.[29] "Tesobonos," or short-term debt securities, were one of attractions Mexico offered. The US Federal Reserve had raised the federal fund rate to 3% between 1992 and 1994, a move that was intended to off-set the economic effects of the increase in marginal tax rates under Bush in 1989 and Clinton in 1993,[30] and to help US banks recover from the 1990-91 recession,[31] but which also had a short-term stimulating effect on the Mexican economy. Because "tesobonos" were linked to the dollar and produced yields of 4% to 7%, foreign investors found them an attractive substitute for US Treasury bills. They were more lucrative and seemed only slightly riskier. This proved to be a massive

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[21] *Ibid.*, "The Crisis of Global Capitalism" by George Soros, Vol. CII, No. 53, Tuesday, September 15, 1998, p. A22

[22] *Ibid.*, "Hot Air Can't Prop Up Currencies" by Judy Shelton, Vol. CII, No. 5, Wednesday, July 8, 1998, p. A14

[23] *Ibid.*, "Markets to the Rescue" by Milton Friedman, Vol. CII, No. 73, Tuesday, October 13, 1998, p. A22

[24] *Ibid.*, "Mexico's Money Theorists Need a Tip From Hong Kong" by Robert L. Bartley, Vol. XCVM, No. 122, Friday, December 20, 1996

[25] *The Wall Street Journal Europe*, "How We're handling the Peso Crisis" by Guillermo Ortiz, Vol. XII, No. 239, January 6 - 7, 1995, p. 6

[26] *Ibid.*, "Zedillo Fails to Spark Confidence in Mexico" by Craig Torres and Paul B. Carroll, Vol. XII, No. 237, January 4, 1995, p. 2

[27] *The Wall Street Journal*, "As Elections Approach, the Uprising in Mexico Is Shaking Up Politics" by Paul B. Carroll and Craig Torres, Vol. XII, No. 7, February 8, 1994, p. 10

[28] *Time International*, "Sell, Sell, Sell" by John Greenwald, January 23, 1995, p. 36

[29] *The Wall Street Journal Europe*, "The Outlook: IMF's role Is Changed by Private Investment" by Janet Guyon, Vol. XII, No. 255, January 30, 1995, p. 1

[30] *The Wall Street Journal*, "Review & Outlook: The Clinton Economy," Vol., CII, No. 85, Thursday, October 29, 1998, p. A22

[31] *Ibid.*, "The Coming Bust" by James Grant, Vol. CII, No. 42, Friday, August 28, 1998, p. A10

miscalculation. When Mexico devalued the peso, the return of "tesobonos" soared as high as 25%, forcing the Mexican government to quit issuing them.[32] But the decision of the Fed to increase the dollar supply in the early 1990s not only impacted the Mexican economy, it jolted the larger global economy as well. It created tension with Germany which was concerned that interest on the mark should remain high and contributed to the fracturing of the European Monetary System. It sent the yen soaring against the weakened dollar. And it encouraged the flow of dollars into Asian markets, contributing to conditions which would consummate in the Asian crash.[33]

By the end of 1993 it was clear that some corrections in the Mexican economy were needed. In 1994 Mexico's current-account deficit reached $28 billion, that is 8% of its gross domestic product. Two factors contributed to this problem: Mexico's rapid domestic economic growth and the inflation associated with it. Together those factors led to an overvaluation of the peso,[34] which prior to de-valuation was pegged at 3.5 pesos to the dollar.[35] In other words, despite the combined efforts of the government, labor, and business, inflation, fed in part by Mexico's rapid growth and the foreign investment associated with it, was by 1994 beginning to de-stabilize Mexico's currency. Mexicans themselves had ceased buying government securities by February 1994, but foreigners that year increased their holding of Mexican securities by 50%.[36] The inflation was made worse when the PRI, President Salinas' party, broke with labor and business and, in a successful effort to secure the election of Ernesto Zedillo, President Salinas' successor, fueled more pesos into the nation's money supply.[37] Indeed, Reuven Brenner of McGill University's School of Management in Montreal has argued that the central bank's secret decision to loosen its monetary controls prior to the election, along with the Mexican government's reluctance to cut taxes and reduce economic regulation between 1992 and 1994, precipitated the crisis.[38]

All this took place in a world economy which was become increasingly dependent on debt financing[39] as well as private investment. During the five years between 1989 and 1993 private investors poured more into developing countries than did the IMF. According to Janet Guyon, 50% of the $70 billion going into developing countries in 1989 came from the IMF. But by 1993 $220 billion was finding its way into emerging markets, and 70% of that came from private investors.[40] By 1994 private investors were capitalizing these emerging economies to the tune of $173 billion.[41] Much of this money came from portfolio investors. In the current global economy, large banks are no longer significant sources of developmental capital.[42]

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[32] *Ibid.*, "The Outlook: Low Interest Rates Pave the Road to Risk" by Greg Ip, Vol. CII, No. 116, Monday, December 14, 1998, front page

[33] *Ibid.*, "Best Laid Plans go Awry When Currencies Fail" by George Melloan, Vol. CII, No. 63, Tuesday, September 29, 1998, p. A23

[34] *The Wall Street Journal Europe*, Vol. XII, No. 239, January 6 - 7, 1995, "How We're Handling the Peso Crisis" by Guillermo Ortiz, p. 6

[35] *Ibid.*, "US Lawmakers Are Still Resisting Mexico Rescue Plan" by Tim Carrington and Paul B. Carroll, Vol. XII, No. 255, January 30, 1995, p. 2

[36] *The Wall Street Journal*, "Clinton's Bailout Was No Favor to Mexicans" by Allan H. Meltzer, Vol. XCVII, No. 24, Friday, February 2, 1996, p. A11

[37] *The Wall Street Journal Europe*, "On Mexico, the US Congress Just Doesn't Get It" by George Melloan, Vol. XII, No. 251, Tuesday, January 24, 1995, p. 11

[38] *Ibid.*, "The Pursuit of Poverty" by Reuven Brenner, Vol. XIII, No. 202, Wednesday, November 15, 1995, p. 10

[39] *Ibid.*, "On Mexico, the US Congress Just Doesn't Get It" by George Melloan, Vol., XII, No. 251, Tuesday, January 24, 1995, p. 11

[40] *Ibid.*, "The Outlook: IMF's Role Is Changed by Private Investment" by Janet Guyon, Vol. XII, No. 255, January 30, 1995, p. 1

[41] *Ibid.*, "Mexico's Crisis Stokes Global Competition for Investment Funds" by Terrence Roth, Vol. XII, No. 225, January 30, 1995, p. 1

[42] *Ibid.*, "Why Alarm Bells Didn't Ring Over Mexico" by Henry Kaufman, Vol. XII, No. 254, January 27 28, 1995, p. 8

This is not to say that banks are unable to prosper in the new economy. Stung by massive losses in the 1980s in real estate and Latin American loans, US banks took significant steps to improve their credit quality. In 1990 the average American bank received a 10% return on its equity. By the end of the decade, that had doubled. Nonperforming assets, which in 1991 stood at 4.5% of the average bank's worth, had fallen by 1998 to 0.5%. Loosened regulations, new technology, downsizing, mergers, and a management increasingly interested in efficiency worked together to make US banks tougher and more savvy. They were strong and well capitalized,[43] but they had become relatively small players in the new economy.

Not only were banks becoming a less significant source of developmental capital, they were losing depositors to mutual funds. This loss of money forced the banks to seek higher risk investments as a means of earning profits, investments like currency trading and arbitrage. To make matters worse, money that could have been used productively was instead diverted to support Europe's vast welfare systems or to finance the US federal deficit.[44] This meant that the developing world was being forced to support the welfare policies of the developed world. The earth's poorest paid for the political stability of the earth's richest.

President Zedillo won the 1994 election and assumed office on December 1. On December 20, despite assurances to international investors and to Mexico's labor and business communities, the newly elected president devalued the peso by 15%.[45] On December 21 he was forced to let the peso float.[46] Within two weeks the peso plunged 30% in value.[47] In another week it lost 40% of its value against the US dollar.[48]

Convinced that President Zedillo had misled them, foreign investors began pulling their funds out of the Bolsa,[49] and by February 1995 were divesting themselves of large chunks of their Mexican holdings.[50] American investors began pulling their money out of other foreign markets as well.[51] Much of this money was reinvested in the US to take advantage of Alan Greenspan's decision in February 1994 to raise US interest rates.[52] As a result stock markets in Latin America lost $150 billion in capitalization.[53] But President Zedillo's move not only undermined the confidence of foreign investors, it ruptured the trust that President Salinas had forged between government, and business and labor.[54] The devaluation meant that Mexicans were facing a 30% pay cut, the level playing field between Mexico and the US which the NAFTA treaty had assumed was destroyed, and the cost of capital in developing countries worldwide went up.[55] As *The Wall Street Journal Europe* put the issue in a January 25, 1995, editorial "Guaranteeing Mexico" pointed out, the devaluation reduced the value of the average Mexican's savings by 40%.

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[43] *The Wall Street Journal*, "The Outlook: Hard Lessons of '80s Left Banks Tougher" by Matt Murray, Vol. CII, No. 105, Monday, November 30, 1998, front page

[44] *The Wall Street Journal Europe*, "On Mexico, the US Congress Just Doesn't Get It" by George Melloan, Vol. XII, No. 251, January 24, 1995, p. 11

[45] *Time International*, "Sell, Sell, Sell" by John Greenwald, January 23, 1995, p. 38

[46] *Ibid.*, pp. 38 - 39

[47] *The Wall Street Journal Europe*, "What's News - World Wide," Vol. XII, No. 237, January 4, 1995, p. 1

[48] *Time International*, "Sell, Sell, Sell" by John Greenwald, January 23, 1995, pp. 38 - 39

[49] *The Wall Street Journal Europe*, "Mexican President Replaces Treasury Chief Over Peso" an Associated Press Report, Vol. XII, No. 235, December 30 - 31, 1994, p. 2

[50] *The Wall Street Journal*, "Clinton's Bailout Was No Favor to Mexicans" by Allan H. Meltzer, Vol. SCVII, No. 24, Friday, February 2, 1996, p. A11

[51] *The Wall Street Journal Europe*, "On Mexico, the US Congress Just Doesn't Get It" by George Melloan, Vol. XII, No. 251, January 24, 1995, p. 11

[52] *The Wall Street Journal*, "The Outlook: Thailand Isn't Mexico, but Stay Alert Anyway" by David Wessel, Vol. C., No. 14, Monday, July 21, 1997, front page

[53] *The Wall Street Journal Europe.*, "Mexico's Crisis Stokes global Competition for Investment Funds" by Terrence Roth, Vol. XII, No. 255, January 30, 1995, p. 1

[54] *Ibid.*, "Zedillo Fails to Spark Confidence in Mexico" by Craig Torres and Paul B. Carroll, Vol. XII, No. 237, January 4, 1995, p. 2

[55] *Ibid.*, "The Mexican Peso: 3.5 or Bust" by David Malpass, Vol. XII, No, 244, January 13 - 14, 1995, p. 6

Interestingly enough experts at the World Economic Conference which met at Davos, Switzerland, over the weekend of January 28 - 29, 1995, were generally agreed that the Mexican crisis coupled with a growing wariness toward China and the effects of the earthquake in Japan, would slow growth across Asia and Latin America.[56] In fact, 1995 and 1996 proved to be years of significant economic growth. There was simply far more capital in the world than the experts realized, and those who had it were eager to invest it for two primary reasons: a desire for diversification and the potential for generous returns. As *The Wall Street Journal* pointed out, for eight of the years between 1982 when the bull market in the US began and 1996, Morgan Stanley's European Far East Index showed higher growth than Standard & Poor's 500 stock index.[57] For example, between 1991 and 1996 Indonesia's stock market returned 19.4% and Brazil's returned 29.7%.[58] Between the mid-1980s and 1993 direct foreign investment in developing Asia, East Europe, and Latin America rose from $11.9 billion to $48.8 billion. By the end of 1996 it had soared to more than $100 billion.[59] In 1996 $164 billion in foreign capital flowed into Southeast Asia.[60] Not only was there enough to fund the wave of privatizations that swept across Central Europe, there was enough to feed the continuing boom in Asia and to recapitalize Mexico. While its crisis in 1982 left Mexico in the doldrums for much of that decade, the Mexican recession in 1995 lasted only four months. In July of that year Mexico again began selling bonds on the international markets.[61] By January 29, 1996, Mexico had repaid the US $1.3 billion from the $20 billion loan package made available to it by the US and the International Monetary Fund.[62]

Besides the huge number of investors supporting the world markets, there were two other reasons for Mexico's rebound: the Mexican government's decision to send its economy into recession rather than default on its debt, a decision that was intended to assure international investors that Mexico was serious about its financial obligations, and the decision of the Clinton administration to provide Mexico with an extensive amount of aid.[63]

However, both of these factors proved controversial. For example, Frank Del Olmo, columnist for *The Los Angeles Times*, hailed Clinton's decision to aid Mexico as a success. Not only did it benefit Mexico, he argued, it benefited the US as well. And, as he pointed out, Mexico had proved a reliable debtor. By August of 1996 Mexico had paid back most of the $13.5 billion it borrowed from the US plus $1.2 billion in interest. It was the decision of the US Treasury and the International Monetary Fund to shore up the peso that attracted investors back to Mexico.[64] Harvard's Martin Feldstein agreed, pointing out that the total $50 billion package offered Mexico ($20 billion from the US and $30 billion from the IMF and other central and commercial banks around the world) was sufficient to allow Mexico to recover. He also pointed out that Clinton had acted with bipartisan support, and that in his determination to combine the resources of the US Exchange Stabilization Fund with those of international agencies, Clinton had followed

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[56] *Ibid.*, "Mexico's Crisis Stokes Global Competition for Investments Funds" by Terrence Roth, Vol. XII, No. 255, January 30, 1995, p. 1
[57] *The Wall Street Journal*, Section "Global Investing," "Expanding Your Horizons," Thursday, June 27, 1996, p. R1
[58] *Ibid.*, "Dangers Lurk in the Global Economy" by Jeffrey E. Garten, Vol. C, No. 55, Wednesday, September 17, 1997, op-ed page
[59] *Ibid.*, "Beyond the Markets, Asia's Woes Will Exact A Toll on Many Lands" by Bernard Wysocki Jr., Vol. C, No. 86, Thursday, October 30, 1997, p. A14
[60] *Ibid.*, "Bonds Can Free Asia's Economy" by Donald Tsang, Vol. CII, No. 15, Wednesday, July 22, 1998, p. A14
[61] *The Wall Street Journal Europe*, Section "World Business," "The Cash Cache" by Thomas T. Vogel, Jr., Monday, October 23, 1995, p. R3
[62] *The Wall Street Journal*, "Clinton's Bailout Was No Favor to Mexicans" by Allan H. Meltzer, Vol. XCVII, No. 24, Friday, February 2, 1996, p. A11
[63] *The Wall Street Journal Europe*, Section "World Business," "The Cash Cache" by Thomas T. Vogel, Jr., Monday, October 23, 1995, p. R3
[64] *The Dallas Morning News* "Viewpoints," "Clinton's finest hour is overlooked" by Frank Del Olmo, Wednesday, September 4, 1996, p. 19A

a precedent set by Ronald Reagan.[65] Even *The Wall Street Journal*, one of Clinton's most vociferous critics, was willing to give him credit for the decision, pointing out that they had never opposed the aid package in theory. But one of the things that had concerned the *Journal* was Mexico's decision to devalue, a decision they believed cost Mexico a great deal of its credibility and that was made simply because the Mexican government believed devaluation was its easiest option.[66] Steven H. Hanke, professor of applied economics at John Hopkins University in Baltimore, was more blunt. He wrote that Clinton's bailout package would "send the Mexican economy into a tailspin."[67]

Events in Mexico in 1995 seemed to vindicate Prof. Hanke rather than Prof. Feldstein. Reuven Brenner pointed out that by mid-November of that year Mexico's currency was still loosing value and although in peso terms prices on the Bolsa were rising, in dollar terms they were still appraised at less than half of their pre-devaluation worth.[68] The IMF and US government loans to Mexico, as Prof. Allan Meltzer pointed out, did nothing to help the average Mexican. Instead most of the money was used to repay speculators who had invested in Mexican government bonds.[69] During 1995 Mexico's peso lost 52% of its value while its gross domestic product, measured in US dollars, dropped 31.8%. Mexico's gross domestic product reached its nadir at the beginning of 1995, then began to rise but the damage caused by its devaluation was not easily undone. Throughout most of 1997 the peso traded at approximately 7.8 to the dollar, a 129% loss of its 1994 value. And between December 1995 and November 1997 Mexico's price index rose 122%. By the beginning of 1998, Mexico's gross domestic product was still 4% below what it had been at the beginning of 1994,[70] and in mid-1998 *The Wall Street Journal* worried that although "Wall Street lenders and Mexican billionaires did just fine," Mexican workers, victims of the deflation caused by devaluation, had not yet recovered from the devaluation.[71] By October 1998 they had yet to regain the economic position they held in 1994.[72]

Joseph Stiglitz, senior vice president and chief economist of the World Bank, noted as a principle of recoveries following financial crises:

> Financial crises typically bring large increases in unemployment, which often lingers well after the initial crisis has passed. The devastating consequences for the poor can persist long after capital flows and economic growth resume.[73]

Devaluation is intended to stimulate exports by making a nation's commodities more competitive abroad. However, devaluation, precisely because it lowers the value of a currency, is inflationary, and, as a general rule, the greater the devaluation, the greater the resulting inflation. What is more, high inflation

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[65] *The Wall Street Journal Europe*, "The Right Policy for Mexico and the US" by Martin Feldstein, Vol. XIII, No. 3, Thursday, Feb. 2, 1995, p. 6
[66] *Ibid.*, "Review & Outlook," "Mexico Policy Matters," Vol. XIII, No. 3, Thursday, February 2, 1995, p. 6
[67] *Ibid.*, "Critics Err – Mexico Still Needs A Currency Board" by Steve H. Hanke, Vol. XIII, No. 18, Thursday, February 23, 1995, p. 8
[68] *Ibid.*, "The Pursuit of Poverty" by Reuven Brenner, Vol. XIII, No. 202, Wednesday, November 15, 1995, p. 10
[69] *The Wall Street Journal*, "Clinton's Bailout Was No Favor to Mexicans" by Allan H. Meltzer, Vol. XCVII, No. 24, Friday, February 2, 1996, p. A11
[70] *Ibid.*, "Review & Outlook: Saving Asia, 101," Vol. CI, No. 7, Monday, January 12, 1998, p. A20
[71] *Ibid.*, "Review & Outlook: Interdependence, After All," Vol. CII, No. 45, Wednesday, September 2, 1998, p. A18
[72] *Ibid.*, "Review & Outlook: the Clinton Economy," Vol. CII, No. 85, Thursday, October 29, 1998, p. A22
[73] *Ibid.*, "What Caused Asia's Crash?: Bad Private-Sector Decisions" by Joseph Stiglitz, Vol. IC, No. 24, Wednesday, February 4, 1998, p. A22

tends to cause economies to contract.[74] Thus, while Mexican exports in 1995 rose 33%, creating the impression that deflation as a strategy worked for Mexico, deflation also fueled inflation which soared by 51.9% that year. This leap in inflation coupled with a 6.9% drop in Mexico's economic output (the worst such drop in Mexico since the Great Depression) meant that Mexico's overall competitiveness declined. While the World Economic Forum in its reports from 1991 to 1993 had classified Mexico as seventh in competitiveness among the 27 OECD countries, in its 1995 report it classified Mexico as last among OECD countries, and as 44th or the 48 nations it surveyed.[75] A weakened currency causes a nation's competitiveness to decline.[76] What is more, the decision to devalue hurt Mexican workers not only because it caused prices in Mexico to rise but also because it kept wages in Mexico low. The cost of devaluation was born by Mexico's workers.[77] As Robert Bartley argued, Mexico is only as wealthy as the total command its citizens exercise over the world's resources, and because devaluation erodes wages for the benefit of exporters, it actually impoverishes a nation. The Mexican economy was growing in 1996, but it would be many years before the average Mexican would be able to regain the ground lost when Mexico made the decision to devalue its peso in 1994.[78] In other words, Mexico impoverished its own citizens in order to reimburse the lenders.[79]

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But Mexican workers were not the only ones subsidizing the profits of international investors. Tax payers, too, because they funded the bailout, also shared the burden.[80] This was welfare for the rich on an international scale, and it introduced what came to be called "moral hazard." Indeed, *The Wall Street Journal* insisted that "the tesobono bailout infused the financial system with a huge does of moral hazard."[81]

dose

Moral hazard

Competition maximizes the generation of wealth, but competition, to be most effective, must take place within an established set of clearly understood rules.[82] When those rules are violated, competitive efficiency is harmed and wealth generation suffers. Governments can work to enforce the rules by punishing predatory pricing, by requiring that contracts be honored, by protecting private property, by prosecuting fraud, and so forth. But governments can undermine the rules when they intervene to secure the economic advantage of one group or another as happened in Mexico. Such government intervention creates "moral hazard" because it rewards cheating, or because it protects individuals from the consequences of irresponsible decisions, or because it does both. In Mexico capitalists were encouraged to believe that no matter how risky their investments, they would be protected because, in aggregate, they were simply too important to be allowed to fail. Certainly huge funds were in the hands of these investors. Barton Biggs, chairman of Morgan Stanley Asset Management, worried that "macro traders (hedge funds' proprietary traders), ...today almost rule the world." But did they rule it well? Steve Forbes fretted, "By bailing out investors and speculators, Mr. Clinton [and the IMF] unwittingly encouraged speculative money flows elsewhere."[83] David Sacks, a research fellow at the Independent Institute in Oakland, California, and Peter

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[74] *Ibid.*, "Inflation Steals the Benefits of Devaluation" by David Ranson, Vol. CI, No. 82, Tuesday, April 28, 1998, p. A18

[75] *Ibid.*, "Mexico's Export-Led Economic Decline" by Roberto Salinas-Leon, Vol. XCVII, No. 103, Friday, May 24, 1996, p. A11

[76] *Ibid.*, "Break the IMF Shackles" by David Malpass, Vol. C, No. 62, Friday, September 26, 1997, p. A22

[77] *Ibid.*, "Mexico's Export-Led Economic Decline" by Roberto Salinas-Leon, Vol. XCVII, No. 103, Friday, May 24, 1996, p. A11

[78] *Ibid.*, "Mexico's Money theorists need a Tip From Hong Kong" by Robert L. Bartley, Vol. XCVIII, No. 122, Friday, December 20, 1996, p. A17

[79] *Ibid.*, "Who Needs the IMF?" by George P. Shultz, William Simon, and Walter B. Wriston, Vol. IC, No. 23, Tuesday, February 3, 1998, op-ed page

[80] *Ibid.*, "Markets to the Rescue" by Milton Friedman, Vol. CII, No. 73, Tuesday, October 13, 1998, p. A22

[81] *Ibid.*, "Review & Outlook: The Clinton Economy," Vol. CII, No. 85, Thursday, October 29, 1998, p. A22

[82] *The Wall Street Journal Europe*, "The Pursuit of Poverty" by Reuven Brenner, Vol. XIII, No. 202, Wednesday, November 15, 1995, p. 10

[83] *The Wall Street Journal*, "Can the US Weather Asia's Storm?", Vol. CI, No. 2, Monday, January 5, 1998, p. A22

Thiel, head of a hedge fund, Theil Capital International, based in Palo Alto, California, were very specific in their diagnosis. "The debacle in Asia," they wrote, "was caused by 'crony capitalism,' an oxymoron describing the way in which politicians infect markets by distorting prices and artificially creating winners and losers."[84] George Soros in his testimony on Tuesday, September 15, 1998, before the House Committee on Banking and Finance Services agreed, "Bailouts did encourage foolish behavior by banks and other lenders, which could count on the IMF when a country got into difficulties."[85] Robert Rubin, Treasury Secretary, wondered if bailouts like the one in Mexico meant that international investors did not have to suffer the consequences of their misjudgments.[86]

The Asian Crisis 1997

The Asian crisis had been brewing for years and in the minds of many was associated with the high cost of Asian real estate. Anthony Downs, a senior fellow at the Brookings Institution in Washington, DC, argued in mid-November, 1995, that "a colossal crash in commercial real estate values is imminent in many large Asian metropolitan areas." "Billions of dollars in capital values," he said, "are about to be wiped out." He described much of the building as unneeded, unprofitable, inadequately serviced, extensively overbuilt, but kept afloat by vast hordes of private capital. The pinch was already being felt in the early 1990s, he said, and was quickly becoming critical.[87] Much of this over building was the result of massive amounts of foreign capital that had poured into East Asia.[88] By 1997 Korea, China, and Japan together were sitting on hundreds of billions of dollars of bad debts, much traceable to the overbuilt real estate sector. Further complicating this picture, many bank officials lent money to their friends, meaning that the loans would never be repaid.[89] This reckless lending distorted the structure of the Asian economy and tied the lenders' assets to unproductive investments.[90] Richard Hornik, *Time's* European business editor, argued that the problem could be summed up as a combination of cheap capital coupled with the top-down nature of the Asian economic model. This bred "complacency, cronyism and corruption."[91]

Others argued that Asia, which had based much of its economic miracle on low wages, was becoming too expensive. As prosperity in Asian resulted in rising wages, Asia's deficiencies, its lack of developed infrastructure, its high rents, its shortage of competent managers, its lack of natural resources, and its rampant corruption (called "crony capitalism"), were beginning to undercut its growth,[92] a growth that had concealed sloppy banking practices, covered for massive waste, and increased the instability of already fragile societies by accentuating the disparities between the rich and poor.[93]

Some contended that the problem lay in the export-oriented strategies pioneered by Japan and Taiwan in the 1950s and adopted by many east Asian nations. Such strategies, these critics argued, relying as they did on government planning and high levels of domestic saving, were no longer effective in a world

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[84] *Ibid.*, "The IMF's Big Wealth Transfer" by David Sacks and Peter Thiel, Friday, Vol. CI, No. 50, March 13, 1998, p. A16

[85] *Ibid.*, "The Crisis of Global Capitalism" by George Soros, Vol. CII, No. 53, Tuesday, September 15, 1998, p. A22

[86] *Ibid.*, "Review & Outlook: A Riady Bailout?", Vol. C, No. 72, Friday, October 10, 1997, p. A22

[87] *The Wall Street Journal Europe*, "The Coming Crash in Asian Real Estate" by Anthony Downs, Vol. XIII, No. 209, Friday - Saturday, November 24 - 25, 1995, p. 6

[88] *The Wall Street Journal*, "The Outlook: Developing Nations Require Open Markets" by David Wessel, Col. C, No. 53, Monday, September 15, 1997, front page

[89] *Ibid.*, "Southeast Asian Banks Contribute to a Bust In the Economic Boom" by Darren McDermott and David Wessel, Vol. C, No. 68, Monday, October 6, 1997, front page

[90] *Ibid.*, "The Coming Bust" by James Grant, Vol. CII, No. 42, Friday, August 28, 1998, p. A10

[91] *Time*, "The Myth of the Miracle" by Richard Hornik, December 8, 1997, p. 40

[92] *The Wall Street Journal Europe*, "Asia, You Cost Too Much" by Mark Simon, Vol. XIII, No. 193, Thursday, Nov. 2, 1995, p. 6

[93] *The Wall Street Journal*, "The Outlook: What Asia May Need Is Far Slower Growth" by Jathon Sapsford, Vol. C, No. 88, Monday, Nov. 3, 1997, front page

increasingly defined by consumer spending and free markets crowded with exporters,[94] and were further compromised by excess capacity which others saw as the root cause of the Asian crisis.[95]

WORD LEFT OUT?

Others even doubted that the Asian Miracle existed. Paul Krugman, as the best known example of these debunkers, that for decades Asia had relied on growth not by becoming more efficient, that is by improving the organization of its labor force or improving existing technologies and developing new ones, but by employing more people and investing more money. Though he predicted that Asia would continue to grow (Asians, he noted, were frugal and well educated, both important factors for encouraging growth), he expected that growth to slow considerably.[96] George Hicks, an Australian economist, was anther debunker of the Asian miracle. He argued that Asian growth is not a harbinger of the future dominance of the East, but reflects instead a catching-up process that began from such low levels of development that rapid growth was almost inevitable. Most of this expansion has occurred post-World War II and was fueled by the liberal access Asian enjoyed to Western technology, huge world markets Asia was not slow in exploiting, cheap Asian labor, and massive influxes of foreign capital. But, he pointed out, once Asian nations began to approach equality with Western nations, the rules of the game would change dramatically because the character of "catch-up growth" and the character of "technological frontier growth" is quite different. Indeed, he suggested that one of the reason for slowing Japanese growth was Japan's having reached parity with the West.[97]

Whatever one's analysis, everyone agrees that Asian growth was export led and fueled by foreign investment. This created two interrelated problems. First, many foreign investors were short-term investors or, more accurately, speculators, and, as Jathon Sapsford pointed out, while direct investment is a good thing, short term loans can be very destabilizing.[98] Short term investments disappear as quickly as they materialize, and thus set the stage for recession by forcing interest rates up (money that can be lent becomes scarcer) and pushing exchange rates down (reflecting the sell-off of local currency).[99] Second, because Asian growth had been so strong for so long, many of these investors had developed unrealistic expectations for the return their investments would earn and, encouraged by Asian banks, had borrowed recklessly. This reckless borrowing encouraged a bubble economy, massive overcapacity in automobiles, semiconductors, petrochemicals, and dozens of other industries across the region, and left the borrowers deeply exposed when Asian economies began to unravel.[100] Much of the foreign investment keeping Asia afloat is direct investment, and by the mid-1990s 40% of that was interregional. About three-quarters of this interregional investment originated among a diaspora of some 50 million ethnic Chinese living across East Asia. In 1994 alone Chinese diaspora generated a gross domestic product of $450 billion, almost equal to the $500 billion GDP of China itself.[101] This meant that domestic exporters and foreign investors could exercise tremendous influence on the economic policy of Asian nations. So when those exporters and speculators began to pressure Asian governments to float their currencies rather than leave them pegged to the US dollar, arguing

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[94] *Ibid.*, "East Asia Needs a New Growth Strategy" by Walter Russell Mead, Vol. IC, No. 75, Thursday, April 17, 1997, p. A22

[95] *Ibid.*, "Embrace Creative Destruction: by Christopher Wood, Vol. CII, No. 79, Wednesday, October 21, 1998, p. A22

[96] *The Wall Street Journal Europe*, "Is the Vaunted 'Asian Miracle' Really Just an Illusion?" by Urban C. Lehner, Vol. XIII, No. 185, Monday, October 23, 1995, p. 4. This article discussed an Paul Krugman's essay "The Myth of Asia's Miracle" which appeared in *Foreign Affairs* in late 1994.

[97] *Ibid.*, "The Myth of the Asian Century" by George Hicks, Vol. XIII, No. 198, Thursday, November 9, 1995, p. 10

[98] *The Wall Street Journal*, "The Outlook: What Asia May Need Is Far Slower Growth" by Jathon Sapsford, Vol. C., No. 88, Monday, November 3, 1997, front page

[99] *Ibid.*, "Currency Controls Gain a Hearing as Crisis In Asia Takes Its Toll" by David Wessel and Bob Davis, Vol. CII, No. 47, Friday, September 4, 1998, front page

[100] *Ibid.*, "The Outlook: What Asia May Need Is Far Slower Growth" by Jathon Sapsford, Vol. C, No, 88, Monday, November 3, 1997, front page

[101] *The Wall Street Journal Europe*, "Asia, How Does Your Garden Grow?" by David Roche, Vol. XIII, No. 197, Wednesday, Nov. 8, 1995, p. 10

that the resulting devaluation would make their exports more competitive, many of the those governments listened.

Thailand

In 1984 Thailand pegged its currency to the US dollar, a move that secured the stability of the baht and undergirded Thailand's economic growth. During the first half of the 1990s the Thai economy was expanding at an average annual rate of 8.4%.[102] In 1990/91 the US experienced a mild recession. In an effort to enable US banks to make up their losses from that recession, the Federal Reserve between 1992/93 set US Fed fund rates at an artificially low 3%. As a result nations in Southeast Asia that had their currencies pegged to the US dollars saw their own interest rates drop as well, some to as low as 6%, well below the expected rates of return on capital invested there. In response Thai authorities in 1993 opened the country to offshore currencies thus allowing Thai companies to borrow foreign currency from Thai banks. Because the baht was pegged to the dollar and because US interest rates were consistently lower than Thai rates, Thai companies would borrow in dollars, then use the dollars to purchase baht which they then invested in real estate. Thus Thailand had three problems to solve: an equity bubble, a real estate bubble, and a booming domestic economy that by 1996 had created a trade deficit equal to 8% of Thailand's GDP.[103] It is worth pointing out here that trade deficits are not necessarily a bad thing. For developing economies that attract large amounts of foreign investment, trade deficits are quite normal. Indeed, as Robert L. Bartley has pointed out, trade deficits and foreign investment are two sides of the same coin. A rapidly growing economy attracting more than its share of the world's investments, and requiring more than its share of the world's goods, will necessarily run a trade deficit.[104] Trade deficit in developing nations are often the creation of the investment required for development.[105] But trade deficits may be perceived as a bad thing, particularly among neo-mercantilists who imagine that trade deficits automatically measure the erosion of a nation's wealth, and the new economy has made neo-mercantilists increasingly vocal.

In December 1996 the Thai government announced that in June of 1996 nonperforming bank loans had increased to 7.7% of all loans, up from 6.9% of all loans at the end of 1995.[106] By early 1997 foreign and local investors, concerned specifically about overbuilt Thai real estate began to withdraw funds from the Thai market. To compensate for this loss, the Bank of Thailand began secretly spending its own reserves until it had invested some $30 billion in the various currency markets.[107]

The Bank of Thailand, increasingly concerned as it saw its reserves draining away, and believing that Thai banks could not tolerate the high interest rates needed to absorb excess liquidity, decided to devalue the baht by taking it off its dollar peg and allowing it to float. Encouraged in this course by Michel Camdessus, the Managing Director of the IMF, who from July 1996 to July 1997 visited Thailand four times urging them to, as he put it, "get rid of this very dangerous peg to the dollar,"[108] Thai authorities reasoned that not only would the domestic inflation caused by the devalued baht ease the pressure of the equity and real estate bubbles, it would also make Thai goods more competitive on the world market and thus help to reverse the country's trade deficit. Therefore Thailand on July 2, 1997, was the first of these

[102] *The Wall Street Journal*, "Review & Outlook: Devaluing Southeast Asia," Vol. C, No. 11, Wednesday, July 16, 1997, p. A22

[103] *Ibid.*, "The Lessons of Asia's Currency Crisis" by John Greenwood, Vol. C, No. 69, Tuesday, October 7, 1997, p. A22

[104] *The Wall Street Journal Europe*, "Mexico: Suffering the Conventional Wisdom" by Robert L. Bartley, Vol. XIII, No. 8, Thursday, February 9, 1995, p. 6

[105] *Ibid.*, "Review & Outlook: Asleep on Mexico," Vol. XII, No. 234, Thursday, December 29, 1994, p. 6

[106] *The Wall Street Journal*, "Review & Outlook: Panic Elsewhere," Vol. IC, No. 50, Thursday, March 14, 1997, p. A14

[107] *Ibid.*, "The Lessons of Asia's Currency Crisis" by John Greenwood, Vol. C, No. 69, Tuesday, October 7, 1997, p. A22

[108] *Ibid.*, "Review & Outlook: the IMF Crisis," Vol. CI, No. 73, Wednesday, April 15, 1998, p. A22 (quoting an interview that appeared in *Business Week* in December 1997)

pressured countries to take their currency off the dollar peg. By July 16th the Thai discount rate soared from 10.5% to 12.5%. Inflation caused by the devalued baht proved to be the central bank's way of imposing indirectly an interest rate premium it was reluctant to impose directly.[109]

Devaluing a currency comes with substantial risks. First, because it reduces the worth of a nation's money, it is inflationary, and the inflation it stimulates will persist until prices compensate for a currency's lost value.[110] Second, because it can have short term benefits for a country's exports by making a country's good temporarily less expensive, it may spark a round of competitive devaluation among that country's trading partners, a development that works to undermine the trust necessary to a market economy.[111] Third, though devaluation may spark a short term export boom, it generally makes an economy less competitive in the long run because volatile exchange rates discourage foreign investment.[112] This is not to say that devaluing a currency never works. In 1992 Britain's decision to devalue the pound fueled an export boom that kept its economy healthier than most others in Europe.[113] But it is important that if a country chooses to devalue, it must adhere to policies consistent with that decision. [114]

In Asia, Thailand's decision to take its currency off the dollar peg sparked a round of competitive devaluation. On July 14th Malaysia devalued the ringgit. On August 14th Indonesia devalued the rupiah. On November 20th South Korea devalued the won.[115] By mid-July the baht had lost 18.8% of its value. The Philippine peso had drop 6.1% in value. The Malaysia ringgit had dropped 4.2% and the Indonesia rupiah dropped 3.1%. Even the Singapore dollar was down 2.4%.[116] By mid-September Thai stock had lost 50% of their January value.[117] Meanwhile, Japan announced that, despite massive public spending financed in part by increasing the Japanese sales tax from 3% to 5%, its Gross Domestic Product had fallen 11.2% during the second quarter of the year, Japan's worst showing since the "oil shock" 23 years before.[118] By early October the Indonesia rupiah was worth 37% less than it had been in January.[119] The drops registered in stock markets across Asia. By October 27th Tokyo share prices had fallen to their lowest levels since August 14, 1995. Despite the efforts of major Hong Kong companies to support Hang Seng by repurchasing their own stocks, sell-offs in that market which had begun the week before resulted in a one-day loss of 5.8%.[120]

In this way Thailand, with an economy smaller than the economy of New York state, sparked a regional crisis that was soon to become global. It turned to Washington for help at a time when the US foreign aid budget adjusted for inflation was the lowest in a quarter century which meant that the US, if it chose to help, would need to work with the IMF. The US Treasury Department pressured the IMF to loan money to Thailand but, in contrast to the way it handled the Mexican bailout, offered no additional US

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[109] *Ibid.*, "Review & Outlook: Devaluing Southeast Asia," Vol. C, No. 11, Wednesday, July 16, 1997, p. A22

[110] *The Wall Street Journal Europe*, "Review & Outlook: The Mexican Way," Vol. XIII, No. 203, Thursday, November 16, 1995, p. 14

[111] *The Wall Street Journal.*, "Review & Outlook: Asia's Chain Reaction," Vol. C, No. 95, Wednesday, November 12, 1997, p. A22

[112] *Ibid.*, "Break the IMF Shackles" by Davie Malpass, Vol. C, No. 62, Friday, September 26, 1997, p. A22

[113] *Ibid.*, "Southeast Asian Banks Contribute to a Bust In the Economic Boom" by Darren M. McDermott and David Wessel, Vol. C, No. 68, Monday, October 6, 1997, front page

[114] *Ibid.*, "The Lessons of Asia's Currency Crisis" by John Greenwood, Vol. C, No. 69, Tuesday, October 7, 1997, p. A22

[115] *Ibid.*, Monday, August 24, 1998, chart on page A6

[116] *Ibid.*, "The Outlook: Thailand Isn't Mexico, But Stay Alert Anyway" by David Wessel, Vol. C, No. 14, Monday, July 21, 1997, front page

[117] *Ibid.*, "Bankers Convene in a region of Submerging Markets" by George Melloan, Vol. C, No. 53, Monday, September 15, 1997, p. A23

[118] *Ibid.*, "Review & Outlook: Japan's Keynesian Flop," Vol. C., No. 53, Monday, September 15, 1997, A22

[119] *Ibid.*, "Review & Outlook: Pricing Asia's Risk," Vol. C., No. 70, Wednesday, October 8, 1997, p. A22

[120] *MSNBC*, "Hong Kong stocks take tumble again," October 27, 1997

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money. The US could not tap into the Treasury's Exchange Stabilization Fund as it had during the Mexican crisis because subsequent to that crisis Congress restricted the ability of the executive to access that fund. Those restrictions were about to expire when Thailand appealed for help, but Robert Rubin of the Treasury Department, not wishing to provoke Congress into extending the restrictions, decided not to use the fund.[121]

Asian Turbulence

Of course the integration of the global economy meant that "the Asian contagion" would spread and that long term problems in Asia would have a detrimental impact worldwide. During the 1990s Wall Street had boomed, setting a series of records. In 1991 the market broke 3,000. In February of 1995 it broke 4,000. In November of 1995 it broke 5,000. On October 14, 1996, it broke 6,000.[122] And it continued to soar until the Asian crisis. Then, as a direct result of problems in Asia, Wall Street, beginning in June 1997, experienced some of its steepest one day point losses ever. On June 23rd, the market was down 192.25. On August 15th, it lost 247.37 points. During the first four days of the week of October 20th, the Hang Seng Index lost 20% of its value. Though it recouped 7% of those losses on Friday, the plunge in the Hang Seng reverberated on Wall Street. On Thursday, October 23rd, the Dow Jones Industrial Average closed down 186.88 points.[123] The Hang Seng lost over 10%, dragging most other Southeast Asian shares down with it. Tokyo closed 3.03% lower. The Philippine index lost 4.98%. Malaysia lost 2.43%, leaving the ringgit at its lowest level against the US dollar since the Malaysian currency was floated in 1973. Korean shares closed down 1.97%. James Osborn of ING Barings Securities surveying the Asian carnage observed, "This fall is far more damaging than we've seen in the '87 crash, Tiananmen Square, the Gulf War crisis. I mean this is really hurting domestic investors." Prices dropped 3.06% on the London Stock Exchange while the German DAX index closed down 4.7% and the French CAC dropped 3.42%.[124]

Hong Kong had seen its own domestic property and credit bubble burst. Mainland China during the two decades of reform prior to its takeover of the British colony had invested $25 billion, making it Hong Kong's largest "foreign" investor. Many in Hong Kong expected the takeover to result in massive new inflows of Chinese money. This expectation of fueled by reports, never well documented, that Chinese were buying up property as fast as they could without any real consideration of its actual value. The anticipated infusion of Chinese cash never happened, in part because so much had already filtered into the economy. But the speculators were running at full cry. Between January and October the cost of Hong Kong stocks had soared by more than 50%. By summer the annualized rate of credit expansion was running at 39% and after a decade long credit binge had swelled to 147% of Hong Kong's economy, higher than any other economy in Southeast Asia except Malaysia. Interest rates were rising faster than inflation for the first time in a decade. Hong Kong's bubble had to burst and did.[125]

On Friday, October 24, 1997, it lost 132 points, its lowest level since August 29th. Monday, October 27, 1997, the Hang Seng lost another 5.8%. Japan's Nikkei 225 Index lost 1.9%. Germany's Dax Index fell more than 4.2%, Paris lost 2%,[126] the London exchange dropped 2.6%, Brazil plunged 15%, and Argentina 13.3%.[127] By late October stock markets in Southeast Asia had fallen as much as 35% from their pre-crisis levels.[128] But the heaviest loss outside the Hang Seng was on Wall Street. The Dow fell 554 points, more than on "Black Monday," October 19, 1987, when it dropped 508 points. However the 7.18% decline, while the twelfth largest in Wall Street history, was nowhere near the 22.6% drop of the 1987

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[121] *The Wall Street Journal*, "How Global Crisis Grew Despite Efforts Of a Crack US Team" by David Wessel and Bob Davis, Vol. CII, No. 60, Thursday, September 24, 1998, p. A10
[122] *The Dallas Morning News*, "Editorial: Gulp!," Monday, December 2, 1996, p. 14A
[123] *MSNBC*, "Wall Street takes a pounding" by Aaron Task, October 27, 1997
[124] *Ibid.* "Hong Kong stocks plunge" by Colin Hurlock, October 23, 1997
[125] *The Wall Street Journal*, "Asian Market Turmoil Adds 'Safe' Hong Kong To Its List of Victims" by Marcus W. Brauchli, Craig S. Smith, and Joseph Kahn, Vol. C, No. 82, Friday, October 24, 1997, p. A19
[126] *MSNBC*, "Wall Street takes a pounding" by Aaron Task, October 27, 1997
[127] *The Wall Street Journal*, "Stocks Plummet 7% As Pros Seek Cover to Protect 1997 Gains" by Greg Ip, Vol. C, No. 84, Tuesday, October 28, 1997, p A10
[128] *Time*, "Catching the Asian Flu" by Michael S. Serrill, November 3, 1997, p. 44

crash,[129] but it did put the market more than 13% below its August high meaning that in the language of Wall Street the market had undergone a "correction," the first drop of more than 10% in seven years.[130] To help counter so precipitous a drop the New York Stock exchange at 2:35 p.m., in compliance with regulations put into effect after the 1987 stock market crash, twice halted trading. The first halt lasting thirty minutes,[131] allowed traders time to match buy and sell orders. The second halt closed the market early which meant that it did not get a chance to close normally.[132]

The record loss was followed by a 337-point gain on Tuesday as bargain hunters moved in to take advantage of the lower prices. This was the best rebound in Wall Street history. For the first time ever more than a billion shares were traded.[133] On Wednesday, October 29th stocks rallied across Asia and into Europe, following the Dow's lead. Hong Kong took the lead with a gain of 18.82%, Tokyo was up 3.34%, Australia closed with a gain of 5.6%, Singapore rose 4.13%, the French CAC jumped 6.29%, the London Stock Exchange (Europe's biggest market) ended the day with a gain of 116.4 points, and Germany's DAX picked up 224.59 points.[134]

But the gains were short-lived. On Thursday, October 30th, the Dow ended down 125 points or 1.6%. Financial stocks, because of concerns that the turbulent Asian markets could spark a sell-off in Latin America, were especially hard hit.[135] Then on Friday, October 31st the Dow ticked up 60 points, followed by a 232 point rise on Monday November 3rd. This jump was caused by a Commerce Department report released on Monday which said that American incomes rose and spending eased in September.[136]

However, investor worries about currency instability and high interest rates continued to haunt the Asian exchanges, and through them the world markets, far into 1998.[137] Two apparently unrelated events in Asia one occurring on Friday, November 21st, and one occurring on Monday, November 24, 1997, illustrated the direction Asian financial markets would take. First, on Friday South Korea, the 11th largest industrialized economy in the world, turned to the International Monetary fund for help. Despite efforts earlier in the decade to reform its financial structure, the paternalistic relationship between South Korea's banks and its large conglomerates had saddled the banks with more that $50 billion in bad debts, and the private sector with a short-term hard currency debt of $65 billion. Initially, South Korea's composite stock

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129 *The Dallas Morning News*, "Dow falls record 554 points" by Bill Deener, Tuesday, October 28, 1997, front page headlines. Mexico's Bolsa also plunged, losing 13.34% of its value. The value of the Mexican peso dropped 7.73%, its steepest decline since March 15, 1995, at the peak of Mexico's financial crisis (*The Dallas Morning News, Business Tuesday*, "Latin markets mirror Dow's record plunge" by Enrique Rangel and Laurence Iliff, Tuesday,) October 28, 1997, Section D, p. 1D).

130 *The Wall Street Journal*, "Stocks Plummet 7% As Pros Seek Cover to Protect 1997 Gains" by Greg Ip, Vol. C, No. 84, Tuesday, October 28, 1997, front page

131 *MSNBC*, Monday, "Wall Street takes a pounding" by Aaron Task, October 27, 1997

132 *The Wall Street Journal*, "Stocks Plummet 7% As Pros Seek Cover To protest 1997 Gains" by Greg Ip, Vol. C, No. 84, Tuesday, October 28, 1997, p. A10

133 *The Dallas Morning News*, "Dow rallies with record gain" by Bill Deener, Wednesday, October 29, 1997, front page

134 *MSNBC*, "Hong Kong closes up 18.82 percent" by Gary Seidman, October 29, 1997

135 *Ibid.*, "Stocks revisit day's highs near close," October 31, 1997

136 *The Dallas Morning News*, "What a difference a week makes" by Bill Deener, Tuesday, November 4, 1997, p. 1D

137 *MSNBC*, In a report "Hong Kong, Seoul, Tokyo lead Asian stock market drop," November 11, 1997, MSNBC News Services noted that those concerns lay behind turbulent markets. On that day the Hang Seng lost 3% of its value, the Nikkei fell to a two year low, and the main share price index at Seoul dropped 6.9%, its biggest one day drop ever. Wall Street closed down 101.9%, propelled in part by the Asian markets and in part by the news that employment in October was up (MSNBC, "Stocks sink on jobs data, Asian fall" by Aaron Task, November 7, 1997).

index rose 3.6% on the news,[138] but on Monday, the key Seoul stock index fell 7.17% to close at its lowest level in ten years.[139]

The market in Seoul was not only registering a judgment on domestic corruption. There was a second reason to be concerned. On Monday, November 24, 1997, Yamaichi Securities, Japan's fourth largest brokerage, announced it would go out of business. This was Japan's biggest financial failure since World War II,[140] and with an admitted $24 billion in liabilities,[141] it dwarfed the 1990 closure of New York's investment bank Drexel Burnham Lambert.[142] The Dow Jones Industrials lost 113.15 on the news, giving up more than a third of their 308 point gain of the week before.[143] Tokyo markets were not opened on Monday because of a national holiday, but the news pushed stocks lower not only in South Korea, but also Philippines and Thailand. The rest of Asia remained uncertain.[144] That uncertainty did not last. On Tuesday when the Japanese market reopened, it set the pace for the region. By the end of the day the Nikkei was down 5.11% and the yen fell to its lowest level against the US dollar in five years. South Korean stocks dropped another 2.5%. Malaysian stocks lost 4.93%. Hong Kong stocks lost 2.46%. Singapore stocks lost 2.11%. The Philippines lost another 2% and Thai stocks another 3.65%. Indonesian stocks were down 3.59%. Only Taiwan, focused on its coming elections, was unaffected, losing only 0.05%.[145] On Tuesday, December 2, 1997, the Korean stock market fell another 4%, reaching a ten year low.[146]

On Monday, December 8, 1997, Thailand's Finance Minister Tarrin Nimmanahaemida announced that the nation, which since the crises erupted had been bleeding $2 to $3 billion a month because of deficits in its current-account and capital account,[147] would close 56 of its 58 debt-ridden finance firms, firms whose operation had suspended by the central bank earlier that year. Only Kiatnakin finance and Securities Plc and Bangkok Investment Plc remained opened. The suspension resulted in a layoff of approximately 14,000 people. The closure of the firms put an addition six thousand people out of work. Tarrin also announced that the move meant that the Thai government might have to absorb as much as five-and-a-half billion dollars in public deposits and debt, much of it in real estate, held by the firms.[148]

On Friday, December 19th, Toshoku, one of Japan's largest supermarket chains, announced that it was filing for bankruptcy protection. This was the first large failure in Japan that was not related to the financial sector and the news, further exacerbating concerns about Japan's economy, sent the Nikkei down 5.2%. Hong Kong's index fell more than 3%. The Dow itself closed down 90 points, spooked in part by Asia's problems and in part by lower than expected earnings announced by Nike and 3Com. Korean stocks fell more than 5%, partly because Kim Dae Jung's election left investors uncertain as to whether or not Korea would support the $57 billion bailout package provided by the International Monetary Fund.[149] This bailout package was to include $21 billion from the IMF, $10 billion from the World Bank, and $4 billion from the Asian Development Bank. And in case this package fell short, the Group of Seven committed an addition $22 billion should it be needed.[150] The package would fail primarily because the money did not

[138] *Ibid.*, "Too little, too late for South Korea?" by Kari Huus, November 24, 1997
[139] *Ibid.*, "Asia stocks hit by Yamaichi closure," November 24, 1997
[140] *Ibid.*, "Yamaichi Securities bows out," November 24, 1997
[141] *Ibid.*, "Asian markets fall sharply," November 25, 1997
[142] *Ibid.*, "Yamaichi Securities bows out," November 24, 1997
[143] *Ibid.*, "Asian markets fall sharply," November 25, 1997
[144] *Ibid.*, "Asia stocks hit by Yamaichi closure," November 24, 1997
[145] *Ibid.*, "Asian markets fall sharply," November 25, 1997
[146] *The Wall Street Journal*, "Review & Outlook: Korea's Medicine," Vol. C, No. 109, Wednesday, December 3, 1997, p. A22
[147] *Ibid.*, "Thailand Tries to Recover" by Michael Gonzalez, Vol. C, No. 72, Friday, October 10, 1997, p. A22
[148] *MSNBC*, "Thailand closes 56 finance firms," December 8, 1997
[149] *Ibid.*, "Dow sinks on Asia woes, poor profits," December 19, 1997
[150] *Ibid.*, "IMF, G-7 to hasten S. Korea loans," December 24, 1997

stay in Koran. Instead the Korean government immediately used most of the money to pay Korean bank debts to foreign banks.[151]

And the bad news from Asia kept coming. On Monday, December 22, the week of Christmas, the Nikkei 225, Tokyo's key index, fell 3.37%, finishing at 14,569, below the psychologically important 15,000 mark for the first time since July 5, 1995. Hong Kong stocks, hurt by Wall Street's Friday drop, lost 2.24%.[152] Then Tuesday on the news that Standard & Poor's rating agency had downgraded South Korea's long-term and short-term foreign currency ratings to junk bond status, a downgrading more severe than the one offered by Moody's Investors Service on Monday, Seoul stocks fell a further 7.5% on Tuesday,[153] South Korea's biggest one day fall ever. By mid-December South Korea had already received $14 billion of the $57 billion bailout negotiated by the IMF, but amid investor fears that South Korean debt obligations could top $200 billion, the IMF promised on Christmas day to deliver $2 billion more to South Korea by the end of the year, a move with which the Group of Seven (G-7), anteing up an additional $8 billion, agreed. Previously they had planned to dole out the $10 billion over the course of 1998.[154] In consequence investors were mollified and South Korean markets rebounded Friday, closing up 6.7%. Tokyo, by contrast, shed an additional 3.25%.[155] By Monday, December 29th, Tokyo markets had reached their lowest levels since July 4, 1995.[156]

The year finished with Thai Prime Minister Chuan Leekpai warning that Thailand would face even worst economic problems in 1998,[157] and with George Soros warning in an article in the December 31st issue of the *Financial Times* that the international financial system was breaking down and that the world was on the verge of general deflation, a problem he blamed on the decision by Southeast Asian government to abandon their fixed exchange rates (i.e. their dollar pegs).[158] His concerns were reminiscent of those expressed by Paul Volcker, former chairman of the Federal Reserve, who, while giving the 50th annual Stamp lecture at the University of London in January 1996, a year before the Asian crisis, had argued that the system of floating exchange rates was not working and that government intervention itself was not sufficient to shore up exchange rate relationships. There was, he said, simply too much money for one government to hedge against, and no nation was prepared to borrow or lend money indefinitely.[159]

Most economists believed that the Asian turmoil would, like the 1987 stock market crash, provide a cooling off period for the US economy, reducing the chance for inflation in America, an inflation they feared would be sparked by the low unemployment rate. They argued that the US economy where less than 11% of America's gross domestic product is exported and only 10% of those exports go to the most troubled of Asia's economies was largely isolated from the larger world. But a growing minority were beginning to worry that the old models no longer applied and that unpredictable economic forces had been unleashed. For example, Bradford DeLong at the University of Berkley saw in the devaluations and currency crises parallels with the 1920s, while Alan Blinder of Princeton University found an analogy in the oil crisis of the 1970s.[160] Economist David Hale pointed out that between 1991 and 1997 East Asian economies other than Japan had been responsible for half the growth in global output. It was hard to believe that they could be crippled and not be a significant drag on the rest of the world. But of course the burden of lean Asian markets could be off set as investment capital previously risked there sought the safety

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[151] *The Wall Street Journal*, "How Global Crisis Grew Despite Efforts Of a Crack US Team" by David Wessel and Bob Davis, Vol. CII, No. 60, Thursday, September 24, 1998, p. A10
[152] *MSNBC*, "Tokyo stocks plummet below 15,000," December 22, 1997
[153] *Ibid.*, "Seoul stocks dive 7.5 percent," December 23, 1997
[154] *Ibid.*, "IMF, G-7 to hasten S. Korean loans," December 24, 1997
[155] *Ibid.*, "S. Korean markets soar on IMF news," December 26, 1997
[156] *Ibid.*, "Tokyo stocks fall to new 2-year low," December 29, 1997
[157] *Ibid.*, "Thai PM says worst is yet to come for economy," December 31, 1995
[158] *Ibid.*, "George Soros says Asia crisis threatens trade," December 31, 1997
[159] *The Wall Street Journal*, "Toward Monetary Stability" by Paul Volcker, Vol. XCVII, No. 17, Wednesday, January 24, 1996, p. A14
[160] *Ibid.*, "Is Asian Crisis a Boon To US or First Whiff Of the Next Recession?" by Jacob M. Schlesinger, Vol. C, No. 126, Monday December 29, 1997, front page

of North America and Europe.[161] It was easy to understand why investment funds sought safety. Templeton Emerging Markets fund which had 60% of its assets in Asia and Latin America lost 13% of its value in 1997. They fared relatively well. Other funds lost 25% of their value.[162]

By the end of 1997 Asia, with 30% of the world's economy, was in a deep recession. The US economy, by far the largest and most powerful in the world, remained strong. In November 404,000 nonfarm jobs, driving the unemployment rate down to 4.6%, the lowest since October 1973. John Huizinga, professor of economics at the University of Chicago, observed that consumer confidence was high in the US while profits along with government expenditures were up. Only the export sector looked weak. The commonly asked question was whether the US and other strong economies in the West would be able to pull Asia out of its doldrums. As Stephen Roach, chief economist at Morgan Stanley Dean Witter put it, "The tug of war between Asia and the rest of the world looms as the most important theme for the global economic and financial outlook in 1998."[163]

SOMETHING OMITTED

The Asian Crisis 1998

The Asian financial crisis continued to cripple world markets into 1998. On Thursday, January 8, 1998, the rupiah fell to an all time low of 10,550 against the dollar, a loss of 26% of its value in one trading session. The Jakarta Stock exchange fell 12%, creating a ripples that sent other Asian markets lower. Malaysia fell 2.7%, Singapore 7.1%, Thailand 2.7%, and the Philippines fell 5.2%. Only South Korea where investors anticipated good news based on Seoul's plans to restructure its debt did stocks rise, seeing gains of 4% by the end of the day. The Dow fell 99.65 points.[164]

On Friday, January 9th, the Dow fell another 222 points in a rare January sell-off. 769 million shares were traded in the New York Stock Exchange's second busiest day ever. Declining stocks outnumber rising stocks by a margin of five to one. In its second worst point decline in history the NASDAQ closed 52.32 points down, leaving it with an almost 5% loss of value for the week. In part the markets were reacting Labor Department figures indicating that the US economy had created 370,000 new jobs in December, almost twice what the experts predicted, yet the unemployment rate had risen from it twenty-four year low of 4.6% in November to 4.7% in December.[165] US manufacturing, according to the Federal Reserve's "beige book" report, released on January 3rd, was beginning to weaken under the impact of the Asian crisis.[166] But more important was the grim news from Asia. Despite the efforts of the IMF, including another $2 billion loan, South Korea's Composite Index finished the day down 2.35%. The Hang Send lost 3.9%. Singapore's Straits times fell a whopping 7.43%. That was bested by the Philippines PSE Composite which closed with a 8.3% drop in value. Malaysia's KLSE Composite lost 3.1%. Only already battered Japan seemed relatively unaffected, losing just 0.2% by the end of the day.[167] Monday saw more of the same with Hong Kong down 8.7% at closing and the Nikkei down 2.21%. Australian lost 2.33%.[168]

Since July 1997 the IMF had arranged a total of $100 billion in loans for South Korea, Thailand, and Indonesia, but those economies seemed unresponsive. Profit taking on January 15th left the Hang Seng 7% lower. That was balanced by a 6.5% rise in the Seoul market. Tokyo was closed for a national holiday. The rest of Asia's markets remained stagnant.[169] The collapse of the Hong Kong investment company

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[161] *Ibid.*, "What's in Store for 1998? Chose Your Prophecy" by George Melloan, Vol. CI, No. 3, Tuesday, January 6, 1998, p. A19
[162] *MSNBC*, "Lessons learned on Asia's ledge" by Kari Huus, December 24, 1998
[163] *The Wall Street Journal*, "The Outlook: Can US 'Engine' Pull Asia Out of Its Slump?" by Bernard Wysocki Jr., Vol. C, No. 112, Monday, December 8, 1997, front page
[164] *Ibid.*, "Indonesia Falls Prey To Hoarding, Loss of Public Confidence" by Richard Borsuk, Jay Solomon, and Darren McDermott, Vol. CI, No. 6, Friday, January 9, 1998, front page
[165] *MSNBC*, "Asia woes again pummel Wall Street" by Aaron Task, January 9, 1998
[166] *Ibid.*, "US economy feels Asia pinch – Fed," January 21, 1998
[167] *Ibid.*, "Asia woes again pummel Wall Street" by Aaron Task, January 9, 1998
[168] *Ibid.*, "Hong Kong stocks plunge 8.7%," January 12, 1998
[169] *Ibid.*, "Hong Kong slumps, Seoul soars," January 15, 1998

Peregrine Investments Holding Ltd. on Monday, January 12th , further eroded Asian confidence. Created at the beginning of the decade by Philip Tose and Francis Leung, who had honed their skills as members of Citicorp's security team in Hong Kong, Peregrine was a victim of the plunging Indonesian rupiah. It failed in part because of its massive holdings in PT Steady Safe, an Indonesian taxi company closely linked to the Suharto family.[170]

At the beginning of February foreign investors, led by Europeans who were encouraged by Indonesia's austere reform package and South Korea's agreement to reschedule its debt, began to show renewed interest in Asian markets. On Monday, February 2nd, the Hang Seng surged 14.33% on its second biggest point gain ever, and markets all across Asia rallied as well. Even the Thai baht was rejuvenated on news that Bangkok had decided Friday, January 30th, to end the separation between on-shore and off-shore currency markets. Only the market in South Korea closed down, falling more than 5%. Interestingly the FTSE 100 index in London, euphoric at an announcement late Friday that Glaxo Wellcome and SmithKline Beecham, two drug giants, were involved in merger talks that could create the third largest company in the world, rose almost 3% Monday and closed at a record high. Optimists proclaimed the end of the Asian crisis,[171] but of course they spoke too soon. Instead of the end of a crisis, the markets were experiencing another round of growing insecurity. *The Wall Street Journal* noted:

> In theory, a currency's value mirrors the fundamental strength of its underlying economy, relative to other economies. But in the current white-knuckled climate, traders and lenders are trying to guess what every other trader thinks. While traders use the most modern communications, they act by fight-or-flee instincts. If they expect others are about to sell, ...they try to sell...first. It isn't just economics at work now; it's a psychology that at times borders on panic.[172]

As Christopher Wood, the global emerging market strategist for Santander Investment, pointed out, financial markets all too often "are driven in the short term by herd psychology,"[173] and that herd psychology was magnified by a situation where loans were increasingly speculative. Indeed, the Secretary of the Treasury Robert Rubin had no doubt that lending and speculation led directly to the global crisis.[174] Jagdish Bhagwati, professor of economics at Columbia University, agreed, observing that rather than being stabilizing as Milton Friedman had anticipated, money invested speculatively was very vulnerable to panics, and that such panics tended to be self-justifying.[175]

Politicians could exploit this psychological dimension to enhance their own power. In a situation like China's, for example, where a repressive government had only limited ability to adapt to the country's changing economy and where the economy was hampered by the demands of a one party system,[176] a currency's value was dependent not on a strict convertibility mechanism or on a disciplined international monetary regime but solely on the willingness of government officials to support it. And of course a nation supported its currency by its willingness to redeem that currency using its reserves of gold or hard

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170 *The Wall Street Journal*, "Review & Outlook: Peregrine's Fall to Earth," Vol. CI, No. 8, Tuesday, January 13, 1998, p. A22

171 *MSNBC*, "Hong Kong stocks soar 14 percent," February 2, 1998.

172 *The Wall Street Journal*, "As Currency Crisis Spreads, Need of a Cure Grows More Pressing" by Bob Davis, Jonathan Friedland, and Matt Moffett, Vol. CII, No. 38, Monday, August 24, 1998, front page

173 *Ibid.*, "Embrace Creative Destruction" by Christopher Wood, Vol. CII, No. 79, Wednesday, October 21, 1998, p. A22

174 *Ibid.*, "Would-Be Keyneses Vie Over How to Fight Globe's financial Woes" by David Wessel and Bob Davis, Vol. CII, No. 61, Friday, September 25, 1998, front page

175 *Ibid.*, "Yes to Free Trade, Maybe to Capital Controls" by Jagdish Bhagwati, Vol. CII, No. 97, Monday, November 16, 1998, p. A38

176 *Ibid.*, "China's Growth Machine Is Starting to Cough" by George Melloan, Vol. C, No. 84, Tuesday, October 28, 1997, p. A23

currencies like dollars. Thus global currency stability was vulnerable to political extortion.[177] But such promises were often vain. No government was in a position to protect its economy in a world where massive amounts of money flowed constantly and rapidly in response to rumor and in reaction to very real economic problems remained.[178] And Asia was awash in rumor and faced major economic problems.

First, the Asian crisis meant a fall in Asian demand, and this fall complicated Asia's recovery. The economic fundamentals in most of the "crisis countries" were sound. The problem was that these countries had exhausted their foreign-exchange reserves by an over-reliance of short-term loans (these, as we have observed, can be destabilizing) and their tendency to run currency account deficits that were ultimately unsustainable. They were illiquid but quite capable of repaying their foreign debts in the long term. Export surpluses were the most obvious way of doing that.[179] But Japan served to illustrate that this obvious truth and the solution it embodied were fraught with problems. Many looked to Japan to lead the Asian recovery, but Japan during the post-war period had relied on credit and exports to power its economy. Approximately 44% of Japanese exports went to Asian countries but these countries, victims of falling currencies and rising interest rates, were no longer buying.[180] Thus the Asian crisis meant that Japan was a global liability rather than a global asset. It also crippled the economy of Australia, a nation which had become heavily dependent on Asian tourism and on exports of agricultural products and raw materials – especially meat, iron ore, and coal – to Asian markets. New Zealand, too, was in a steep decline.[181]

Second, by January the crisis in Asia was beginning to have a noticeable impact on sectors of the US economy. Pulp mills in Alabama and fishermen in Alaska were beginning to feel the pinch of shrinking Asian markets.[182] Even giants like Motorola stumbled as consumer demand collapsed in Japan and Southeast Asia.[183] US agricultural exporters were among the first to be hurt by the Asian crisis.[184] The Commodity Research Bureau index, heavy with agricultural products, fell to a three-and-a-half year low. American hide producers exported 60% of their product, most of that to South Korea, but because South Korea was no longer importing hides, the American market collapsed. And since September 1997 prices for industrial commodities in the United States generally had fallen by 10%. This capped a two year decline, the longest slide in half a century.[185] Commerce Department figures released in late August publicize that corporate profits in the second quarter were down 1.5%, their first year to year decline in almost a decade, while GDP was growing at only 1.6%.[186]

Unsurprisingly the Asian crisis hurt companies that depended on trade with Asia, particularly if they exported to the emerging markets there. In 1996, for example, the US exported goods and services to emerging markets that were equal in worth to the goods and services the US exported to Europe and

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[177] *Ibid.*, "Hot Air Can't Prop Up Currencies" by Judy Shelton, Vol. CII, No. 5, Wednesday, July 8, 1998, p. A14

[178] *Ibid.*, "…And Impose New Codes of Conduct" by Gordon Brown, Vol. CII, No. 68, Tuesday, October 6, 1998, p. A22

[179] *Ibid.*, "Focus on Crisis Management…" by Martin Feldstein, Vol. CII, No. 68, Tuesday, October 6, 1998, p. A22

[180] *Ibid.*, "Beyond the Markets, Asia's Woes Will Exact A Toll on Many Lands" by Bernard Wysocki Jr., Vol. C, No. 86, Thursday, October 30, 1997, front page

[181] *MSNBC*, "Global financial chaos spreads" by Kari Huus, August 27, 1998; *The Wall Street Journal*, "From Alaska Fisheries To Australian Outback, Asian Crisis Hits Home" by Steve Glain, Vol. CI, No. 51, Monday, March 16, 1998, front page

[182] *The Wall Street Journal*, "From Alaska Fisheries To Australian Outback, Asian Crisis Hits Home" by Seven Glain, Vol. CI, No. 51, Monday, March 16, 1998, front page

[183] *Ibid.*, "Motorola, Broadsided By the Digital Era, Struggles for a Footing" by Quentin Hardy, Vol. CI, No. 78, Wednesday, April 22, 1998, front page

[184] *MSNBC*, "Lessons learned on Asia's ledge" by Kari Huss, December 24, 1998

[185] *The Wall Street Journal*, "Commodity Prices fall Amid turmoil in Asia; Will Damage Spread?" by Aaron Lucchetti, Vol. CI, No. 25, Thursday, February 5, 1998, front page

[186] *Ibid.*, " 'A Global margin Call' Rocks markets, Banks – and Boris Yeltsin," Vol. CLII, No. 42, Friday, August 29, 1998 front page

Japan.[187] During the second quarter of 1998 the US trade deficit expanded from $149 billion in the last quarter on 1997 to $252.9 billion. This was unprecedented and reduced the real annual GDP growth of the US economy by about 2.4% in the first half of 1998,[188] this despite the fact that the trade sector accounts for only about 10% to 15% of American GDP.[189] The high tech industry and agricultural exports were especially hard hit. For example, on Friday, July 17, 1998, the Department of Commerce reported that between May of 1997 and May of 1998, agricultural exports had fallen 12%.[190] Indeed, agricultural exports fell for all of 1998. Nevertheless the economy still grew at 3.5%, bolstered by domestic demand, the reluctance of the Federal Reserve to raise interest rates, and falling commodity and import prices which lowered inflation. In other words, much of the US economy was enjoying conditions not unlike those responsible for the Reagan boom in the mid-1980s.[191]

Robert Brenner, professor of history at UCLA, warned that the stock market boom and corporate profitability had been too dependent on the devaluation of the dollar against the yen and the mark over a period of ten years, and a stagnation of US wages during the same time. As imports increasingly squeezed US manufacturers, he argued, corporate profits would be hurt and stocks would fall.[192] And the Commerce Department reported on Friday, July 17, 1998, the trade deficit in May was 10.3% higher than it had been in April, a record. Indeed, for the first five months of 1998, the trade deficit was 42% higher than it had been in 1997. Exports were declining and imports were rising as nations that could no longer afford to purchase American products attempted to jump-start their own economies by selling goods on America's domestic market.[193] But during 1997 and 1998, the US was able to maintain its growth in the face of a global financial crisis in large measure because its is a service economy. The service sector accounts for approximately 80% of employment in the US and almost that much of the economy's output. That means that only 20% of America's economic activity in the 1990s results in the production of tradable goods, as opposed to 40% in the 1950s. The cost of most these services is unaffected by the cost of foreign labor while foreign imports can actually contribute to the creation of new service jobs. The US was able to prosper while much of the rest of the world suffered because the US was protected by a well managed service economy.[194]

It is worth noting that while many Americans had benefited from the growing economy, many had not. Personal bankruptcies were at an all time high, more than quadrupling between 1980 and 1998. By 1998 they were occurring at an annual rate of almost 1.5 million.[195] In 1997 a record 1.3 million Americans filed for bankruptcy protection. In fact, more than half of the 20 million Americans who filed for bankruptcy since federal bankruptcy laws were first enacted a century ago have done so since 1985. In part this was consequent to the Bankruptcy Reform Act of 1978 which made it easier for debtors to file for bankruptcy protection, but it also reflected the explosion of easy credit and the massive marketing of that credit,[196] and the spread of legalized gambling.[197]

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[187] *Ibid.*, "Dangers Lurk in the Global Economy" by Jeffrey E. Garten, Vol. C, No. 55, Wednesday, September 17, 1997, op-ed page
[188] *Ibid.*, "Asia's Crisis Fuels US Boom" by David Hale, Vol. CII, No. 32, Friday, August 14, 1998, p. A14
[189] *Ibid.*, "A Divided Economic Policy Cannot Stand" by David Littmann, Vol. CII, No. 95, Thursday, November 12, 1998, p. A30
[190] *Ibid.* "The Outlook: US Farmers Are Hurt By Asian Crisis, Too" by Bernard Wysocki, Jr., Vol. CII, No. 13, Monday, July 20, 1998, front page
[191] *Ibid.*, "Asia's Crisis Fuels US Boom" by David Hale, Vol. CII, No. 32, Friday, August 14, 1998, p. A14
[192] *Ibid.*, "The Left Has Forgotten How to Enjoy a Good Scandal" by Alexander Cockburn, Vol. CII, No. 43, Monday, August 31, 1998, p. A18
[193] *MSNBC*, "US trade gap widens to record," July 17, 1998
[194] *The Wall Street Journal*, "Why the View of Asia's Bonfire Is So Pretty" by Holman W. Jenkins Jr., Vol. CII, No. 40, Wednesday, August 26, 1998, p. A23
[195] *Ibid.*, "Politics Aside, Let's Look at Economic Dysfunction" by George Melloan, Vol. CII, No. 93, Tuesday, November 10, 1998, p. A23
[196] *Ibid.*, "The Outlook: Either Bankruptcy Is Too Easy, or Credit Is" by Matt Murray, Vol. CI, No. 41, Monday, March 2, 1998, front page

Much has been made of America's low unemployment rate, but while unemployment is down (by August 1998 it stood at 4.3%, close to a 25 year low),[198] many Americans, particularly among the more unskilled, are working for lower wages.[199] Despite the uninterrupted growth of the Clinton years and a higher minimum wage, more Americans were classifiable as poor in 1996 than in 1989. America's median income rose only 1% in 1996 and, when adjusted for inflation, was lower than it was in 1988. Indeed, in 1997 the average America's living standard was lower than it was in 1989 due to the fact that 60% of American households had seen their real income drop between 1989 and 1997. And most of the American families who enjoyed a rising income could thank not rising wages but longer hours and the fact that usually both partners worked.[200] Despite the economic expansion since 1991 the wage of the median worker and the income of the median family had by the end of 1997 failed to reach its pre-recession levels.[201] This was true even for states like Texas which seemed in the 1990s to have booming economies. Dick Lavine, the senior fiscal analyst for the Center for Public Policy Priorities based in Austin, noted that in 1998 the income of Texas families, though recovering somewhat from its 1989 nadir, still lagged behind where it had been in 1979 and was 10% lower than the national average.[202] Of course federal, state, and local governments demanded their share of that income. David Littmann points out that the federal tax code, which grew from 11,400 words when it was conceived in 1913 tops 555 million words today, and taxes consume 42% of the average American's personal income.[203]

Meanwhile, between 1981 and 1997 the wealthiest 5% of Americans saw their share of the national income rise from 15.6% to 21.4%, due in large measure to investments. Indeed, through investment that 5% of Americans controlled nearly 60% of the nations entire net worth. Under the Clinton presidency American society had become increasingly economically stratified.[204] However, between 1994 and 1998 the value of the stock market doubled, making it attractive to many Americans. 43% of adult Americans by mid-1998 owned some stocks as compared to only 21% in 1990, and many had invested heavily. 57% of all household assets in America were staked in the markets.[205]

Third, the crisis in Asia resulted in the collapse of the government in Indonesia, the fourth most populous nation in the world with 202 million people, and the ouster of Indonesian President Suharto. Prior to the crash in 1997 the Indonesian economy appeared sound. Wages were rising, inflation was low, exports were expected to rise 14% that year, and analysts across the board were predicting Indonesia's economy to grow about 14%.[206] But that did not happen. Instead between January 1997 and January 1998 the Indonesian stock market lost 50% of its value while the Indonesian rupiah fell 75%, despite $3 billion in aid provided by the IMF. Indonesia's plunging currency resulted in a loss of confidence among Indonesian citizenry, hoarding, and other forms of social unrest.[207] Some two million Indonesian workers had lost their

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[197] *Ibid.*, "Politics Aside, Let's look at Economic Dysfunction" by George Melloan, Vol. CII, No. 93, Tuesday, November 10, 1998, p. A23

[198] *Time*, "What a Drag!" by S.C. Gwynne, Vol. 152, No. 11, September 14, 1998, p. 32

[199] *The Wall Street Journal*, "The Outlook: As Economic Dominoes Fall, Global Risks Rise" by David Wessel, Vol. C, No. 103, Monday, Nov. 24, 1997, front page

[200] *MSNBC*, "Media owners are the media's darlings" by Eric Alterman, October 28, 1997

[201] *The Dallas Morning News*, "State of Labor: Gulf has widened gulf" by David Broder, Monday, September 7, 1998, p. 31A. His figures are based on *The State of Working America* by Lawrence Mishel, Jared Bernstein, and John Schmitt, researchers affiliated with the Economic Policy Institute, a union supported think tank.

[202] *Ibid.*, "State of Labor: Texas not as well of as in 1979: by Dick Lavine

[203] *The Wall Street Journal*, "A Divided Economic Policy Cannot Stand" by David Littmann, Vol. CII, No. 95, Thursday, November 12, 1998, p. A30

[204] *MSNBC*, "Media owners are the media's darlings" by Eric Alterman, October 28, 1997

[205] *Time*, "What a Drag!" by S.C. Gwynne, Vol. 152, No. 11, September 14, 1998, p. 29

[206] *Ibid.* "Catching the Asian Flu" by Michael S. Serrill, November 3, 1997, p. 47

[207] *The Wall Street Journal*, "Indonesia Falls Prey To Hoarding, Loss Of Public Confidence" by Richard Borsuk, Jay Solomon, and Darren McDermott, Vol. CI, No. 6, Friday, January 9, 1998, front page. For decline of currency and market value see chart on A12.

jobs. Economists in a front page article in the English-language *Jakarta Post* on Friday, January 16th, called for Suharto's resignation.[208]

Classed by the Clinton administration as one of ten leading developing countries, Indonesia was an oil exporter and an important market in global trade, and was viewed by US strategists as an important counter-weight to China. These strategists worried that Indonesia's economic woes could destabilize the country, result in anti-Chinese riots as Indonesians who had not fared well during the economic boom took out their frustrations on the successful and highly visible Chinese minority, and create problems between Indonesia and China.[209] Of course a confrontation between Indonesia and China could have repercussions across the region. For example, all of Japan's oil had to pass through Indonesian waters.[210]

The dreaded riots came in mid-May in reaction to an austerity plan announced by Suharto under the provisions of $43 billion bailout package offered by the IMF, and, as feared, the Chinese minority were a primary target of angry Indonesians.[211] During the riots as many as 168 Chinese women may have been raped in what many alleged was an organized campaign. In November a government investigation into 52 of those rapes concluded that there was "no indication that the rapes were committed systematically" but did promise that the victims would be compensated. Suharto was forced to resign on May 21, 1998, ending his thirty-two year rule.[212]

The collapse of the Indonesian economy not only brought down the government of Indonesia, it also threatened many of the nation's endangered species with extinction. Emboldened by the high prices some of those species brought on the world market, trappers marched for days into Indonesia's preserves to capture or kill monkeys, elephants, fruit bats (the famous "flying foxes" whose wings are popular in curries), anoa (mountain buffalo), babirusa (an East Indian swine whose tusks grow through the roof of its mouth and curve toward its eyes), and tigers. One might have expected that the as the Asian demand for lumber fell, the burden on Indonesian forests, but that did not happen. Instead desperate farmers, who in some areas saw their poverty rate triple between May and October, began clearing forest land for cultivation.[213]

Fourth, the upheaval in Indonesia was followed by the collapse of the Russian ruble in mid-August. By Thursday, August 28, 1998, Republic New York Corp., America's 18th largest bank, announced that losses from investments in Russia would wipe out its third-quarter profits.[214] That news was only a small part of the bad news which by day's end brought the Dow Jones Industrial Average down 4.19%, or 357.36 points. Tokyo's market fell 3%, leaving it close to a six year nadir. Markets in London were down 3.2%. And sell-offs on these major exchanges were reflected in smaller markets across the world from Brazil to Hungry. Three factors underlay this sharp market action: (1) the Russian decision to suspend ruble trading indefinitely, a decision which amounted to a default on at least $33 billion of its short term debt, which cost George Soros $2 billion and Credit Suisse First Boston more than a quarter of a billion dollars,[215] and which sent Russian stocks tumbling 17% after trading was twice suspended,[216] (2) concerns that Boris Yeltsin was either incapacitated or would step down, and (3) consternation that Russia might be returning, at least

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208 *MSNBC*, "Jakarta reaches boiling point" by Kari Huus, January 19, 1998

209 *The Wall Street Journal*, "Asian Woes Cause Headaches for US Foreign Policy" by Robert S. Greenberger and Thomas E. Ricks, Vol. CI, No. 8, Tuesday, January 13, 1998, p. A24

210 *Ibid.*, "Indonesia Falls Prey To Hoarding, Loss Of Public Confidence" by Richard Borsuk, Jay Solomon, and Darren McDermott, Vol. CI, No. 6, Friday, January 9, 1998, front page, p. A12

211 *MSNBC*, "Chaotic rioting rocks Indonesia" by Ned Colt, May 14, 1998

212 *Ibid.*, "Jakarta denies rapes were organized," December 22, 1998

213 *The Wall Street Journal*. "Desperate Indonesians Devour Country's trove Of Endangered Species" by Peter Waldman, Vol. CII, No. 82, Monday, October 26, 1998, front page, p. A8

214 *MSNBC*, "Wall Street Suffers Russia fallout," August 27, 1998

215 *The Wall Street Journal*, "Review & Outlook: Ruble Rubble," Vol. CII, No. 42, Friday, August 28, 1998, p. A10; *Time*, "What a Drag!" by S.C. Gwynne, Vol. 152, No. 11, September 14, 1998, p. 30

216 *ABCNEWS.com*, "Fear Strikes Global Markets" by Thomas Wagner, August 28, 1998

in part, to Soviet-style economic solutions. In other words, there was a keen sense that Russia, despite a $22.6 billion aid offer by the IMF,[217] was seriously adrift.[218]

Since the fall of the Soviet Union in 1991, the dishonesty and corruption which had become systemic under the Communists had strengthened.[219] Georgie Anne Geyer described an oligarchy of seven men who had in the intervening years looted and denuded the country and now boasted of owning half of Russia.[220] Russian GDP had contracted an astounding 50% as the government of prime minister Viktor Chernomyrdin attempted to institute economic reform from December 1992 until March 1998.[221] Much of the decline had occurred in the early years. In 1997 the Russian GDP had actually risen 0.8% but that MODEST modes gain was wiped out in the first five months of 1998 when GDP fell 0.2%. Declining world oil prices harmed one of its most important exports. Indeed, the government had lost some much credibility that in 1997 only 4% of Russians even bothered to pay taxes.[222] By Friday the Dow closed down at 8051.68, having lost 550.97 points over three days.[223]

The economic turmoil in Russia gave rise to a darker concern as well. Though destitute in consumer goods, Russia was awash in military hardware, much of it among the world's most sophisticated, and enjoyed superpower nuclear status. In an effort to raise money, cash-strapped Russian was willing to sell much of its military equipment to any state that wanted to purchase it, and many of the world's most irresponsible regimes were willing to pay the asking price for Russian military goods. The real concern, however, was Russia's ability to control its nuclear arsenal. There were two levels to this concern. The first was that the Russian government might be willing to swap nuclear components or nuclear know-how for hard currency. The second was that rogue elements within Russia might leak nuclear material into reckless hands. During the 1990s government agencies both in Russia and abroad thwarted efforts among some Russian criminal elements to sell stolen nuclear material, but by the end of the decade many began to fear that the Russian government itself might become the real proliferater. US intelligence officers watched with grave concern as Russia negotiated the sale of a 40-megawatt heavy-water research reactor and a uranium-conversion facility to Iran. Of even greater concern was the willingness of Russian Ministry of Atomic Energy (Minatom) to sell the facilities for only a few hundred thousand dollars. Minatom's director Yevgeny Adamov had apparently come to the conclusion that the only immediate way for Russia to raise money was through the sale of its nuclear expertise and tools. US security worried that negotiations on the early sale could be a preliminary gesture to a four-reactor deal with Iran which could net the Russians up to four billion dollars.[224]

The slide in US markets continued on Monday, August 31st, with industrials losing 6.37% of their value, its second largest point decline ever, though in percentage terms it was only the 25th largest drop.[225] For the month of August the Dow had lost 1,344 points, its worst ever monthly drop.[226] By the end of

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[217] *The Wall Street Journal*, "Review & Outlook: Ruble rubble," Vol. CII, No. 42, Friday, August 28, 1998, p. A!) Of course tax payers foot the bill for such bailouts. In Germany alone, where the government had agreed to cover bank loans exposed by the Russian crisis, that liability totaled $30 billion.
[218] *Ibid.*, " 'A Global Margin Call' Rocks markets, Banks – and Boris Yeltsin," Vol. CII, No. 42, Friday, August 29, 1998, front page
[219] *The Dallas Morning News*, Viewpoints, "Why reforms went wrong in Russia" by Stephen Wegren, Friday, August 28, 1998, p. A29
[220] *Ibid.*, Viewpoints, "Russia Adrift" by Georgie Anne Geyer, Thursday, August 27, 1998, p. 29A
[221] *Ibid.*, Viewpoints, "Why reforms went wrong in Russia" by Stephen Wegren, Friday, August 28, 1998, p. 29A
[222] *MSNBC*, "Global financial chaos spreads" by Kari Huus, August 27, 1998
[223] *The Dallas Morning News*, "Ticker Shock" by Edward Dufner, Saturday, August 29, 1998, front page
[224] *The Wall Street Journal*, "Money Hungry, Russia Finds a Foreign Market For Nuclear Knowledge" by Carla Anne Robbins and Andrew Higgins, Vol. CII, No. 117, Tuesday, December 15, 1998, front page
[225] *Ibid.*, "Stocks Plunge Again, Battering Stalwarts And Internet Star" by Greg Ip and E.S. Browning, Vol. CII, No. 4, Tuesday, September 1, 1998, front page
[226] *MSNBC*, "Wall Street clobbered" by Colin Hurlock, August 31, 1998

EVER?

August almost half of US domestic stock funds totaled losses for 1998.[227] The NASDAQ Composite Index fell 8.56%, its worst every one day loss and a decline which left it down 25.57% from its July 20th record. However, markets in other parts of the world held steady, sparking a recovery on Tuesday, September 1st, despite the move by the central bank of Malaysia to limit the conversion of ringgit into dollars by fixing the exchange rate to 3.80 ringgit to the dollar, a move which sent Malaysian stocks down 13%. After an uneven day in which Wall Street first gained, then lost, 140 points, the Dow closed up 288.6 points, its second largest ever, and the NASDAQ gained 76 points.[228]

The US rally was followed by an Asian one on Wednesday, September 2nd. Malaysian stocks were up 12%, the Hang Seng rose 4.2%, Taiwan was up 2.2%, and Tokyo, giving back most of its earlier gains, closed only slightly higher.[229] This was followed on Thursday, September 3rd, by a loss of 100.15 points (1.29%) on the Dow, with Standard & Poor's 500-stock index dropping 7.71 points and the NSADAQ losing 20.99 points. Meanwhile in Japan Hitachi, the electronic giant, announced that it expected huge corporate for 1998 and Toa Steel announced that it would begin to liquidate its assets at the end of the fiscal year.[230] On the following Tuesday, September 8th, the Dow fueled by expectations of lower interest rates, soared 4.9% or 380.53 points, its biggest one day point gain ever, and propelled the NASDAQ up 6.02% for its second largest gain since it was created in 1971.[231]

Then on Wednesday, September 9th, the Dow plunged 156 points. A fall of more than 3%, or 249.48 points on Thursday, September 10th, wiped out all of Tuesday's gains. For most of Thursday afternoon stock losers out number gainers by three to one. The NASDAQ was down 2.5%.[232] Analysts suggested that the sell off was sparked by reports by Procter & Gamble and Merrill Lynch of lower than expected profits, by concerns about the Monica Lewinsky affair, and by the Bank of Japan's unanticipated rate cut, a decision that sent the dollar higher against the yen.[233]

On Friday, September 11th, stocks began a four day rally, gaining 550 points. This ended on Thursday, September 17th, when the Dow, responding to huge sell-offs in Asia and Europe, falling 216 points or 2.7%.[234]

On Tuesday, September 29th, Federal Reserve Board chairman Alan Greenspan announced a lowering of short-term interest rates by a quarter of a percent, from 5.50 to 5.25, the first reduction in almost three years.[235] Because tightening credit meant that the marginal borrower was finding it increasingly difficult to negotiate loans, and because so much of an economy's growth occurs at the margins,[236] the Fed expected that its announcement would boost borrowing. Instead the Dow, registering its disappointment with the cut and, reacting to lower than expected earnings reports from Northern Telecom Ltd., Gillette Co., RJR Nabisco, and Unocal, fell 238 points while the NASDAQ dropped 40

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227 *Time*, "What a Drag!" by S.C. Gwynne, Vol. 152, No. 11, September 14, 1998, p. 31
228 *MSNBC*, "Wall Street bounces back" by Terri Cullen, September 1, 1998, "Stocks rise in Asian markets as region mimics US rally," story from *The Wall Street Journal* on *MSNBC*, September 2, 1998
229 *Ibid.*, "Stocks rise in Asian markets as region mimics US rally," story from *The Wall Street Journal* on *MSNBC*, September 2, 1998
230 *MSNBC*, "slumping stocks buoy Treasurys as dollar sinks" by Terri Cullen, September 3, 1998
231 *The Dallas Morning News*, "Dow posts a record point gain" by Bill Deener, Wednesday, September 9, 1998, front page
232 *MSNBC*, "Politics pummel Wall Street" by Emory Thomas Jr., September 10, 1998
233 *Ibid.*, "Worried about earnings, Clinton spark sell-off" by Terri Cullen, September 10, 1998
234 *Ibid.*, "Dow tumbles 216 in global selloff," September 17, 1998
235 *The Dallas Morning News*, "Fed reduces short-term interest rate" by Robert Dodge, Wednesday, September 30, 1998, front page
236 *The Wall Street Journal*, "The Coming Bust" by James Grant, Vol. CII, No. 42, Friday, August 28, 1998, p. A10

points. Tokyo fell 3%, to a twelve year low, in part because public funds expected to bolster the Japanese market were not forthcoming. Paris closed down 4.2%, Frankfurt down 2.3%, and London down 0.9%.[237]

Late Wednesday, September 30, 1998, the IMF released its semiannual World Economic Outlook which warned that a global recession was possible in 1999. This report coupled with Morgan Stanley Dean Witter's gloomy release earlier in the day, and followed on Thursday, October 1st, by a pessimistic sector review by the US investment bank J.P. Morgan, sent European stocks down.[238] The Dow, initially plunging, rallied by the end of the day but the NASDAQ Composite remained weak.[239] It is also worth noting that the Labor Department reported in its Producer Price Index that during September US wholesale prices rose 0.3%. Auto prices had risen 2.2%, the largest increase in eight years. The cost of heating oil jumped 6.6%, the highest rise in eleven months. The price of electricity went up 0.5%, and despite a fall in the price of beef, pork, and fish, food prices went up 0.4%, fueled by a 12.4% increase in vegetables and a 0.8% increase in the cost of fresh fruit. This rise in prices marked the end of a decline that spanned the previous ten months.[240]

Over the weekend of October 3rd and 4th ministers of the Group of Seven met in Washington where they were expected to arrive at a coordinated interest-rate cut. Instead they adjourned with a statement that the global financial crisis had deepened. That meeting sent stocks on both NASDAQ and Wall Street tumbling on Monday, October 5th, as investors poured money into US Treasury bonds.[241] Asian markets, too, were down. The Hang Seng fell 4.1%. Tokyo lost 2.1%. The Philippines market lost 2.4%. Bombay lost 4.4%, while Sydney, Malaysia, and Jakarta all closed lower.[242]

On Wednesday, October 7th, the Nikkei-225 index rose 6.17%,[243] as the dollar lost 8% of its value against the yen, its biggest one day drop in a quarter century.[244] But on Thursday heavy selling in export-oriented high technology and auto industry stock caused the Nikkei to plunge 5.8%.[245] Wall Street began Thursday with a plunge of 274 points only to make most of that up during the afternoon, closing only 10 points below where it had ended Wednesday. The NASDAQ fell 43 points.[246] The brokerage firm Donaldson, Lufkin & Jenrette reported that by the end of the day the average stock listed on either the New York or the NASDAQ exchange was down 49% from its high over year.[247]

Friday, October 9th, saw the beginning of a two day rally on the New York exchange which by the end of Monday would push the Dow Jones above the 8000 mark for the first time since September 29th,[248] but the rally was ended as profit takers switched their earnings into US Treasury bonds.[249] The problem was that the return on a thirty-year Treasury bond had fallen from 6.1% in April 1998 to 4.7% on October 5th, the lowest yield for long-term US government bonds in thirty-one years. This meant that Treasury

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[237] *MSNBC*, "Wall Street takes a hammering," September 30, 1998, "Nikkei falls to 12-year low; Asian-Pacific stocks slide," story from *The Wall Street Journal* on *MSNBC*, September 30, 1998

[238] *Ibid.*, "Recession fears hammer stocks," story from *The Wall Street Journal* on *MSNBC*, October 2, 1998

[239] *Ibid.*, "Industrials bounce, but weak techs weigh on Nasdaq" by Terri Cullen, October 2, 1998

[240] *Ibid.*, "US wholesale prices post largest increase in a year," October 15, 1998

[241] *Ibid.*, "Tech stock slump sinks Wall Street as bonds skyrocket" by Terri Cullen, October 5, 1998

[242] *Ibid.*, "Hong Kong drops 4.1%; other markets follow suit," story from *The Wall Street Journal* on *MSNBC*, October 5, 1998

[243] *Ibid.*, "Stocks are mixed as investors focus on Greenspan remarks" by Terri Cullen, October 7, 1998

[244] *The New York Times Business Day*, "Dollar Hits 111.73 Yen before Staging Comeback" by Kenneth N. Gilpin, Friday, October 9, 1998, p, C1

[245] *MSNBC*, "Profit-taking hits Japan; rest of Asia continues rally," story from *The Wall Street Journal* on *MSNBC*, October 8, 1998

[246] *Ibid.*, "Whipsawed on Wall Street" by Emory Thomas Jr., October 8, 1998

[247] *The Wall Street Journal*, "Stocks' Wild Swings Open a Classic Divide Between Bulls, Bears" by E.S. Browning and Pui-Wing Tam, Vol. CII, No. 95, Thursday, November 12, 1998, front page

[248] *MSNBC*, "Rally gains steam as investors cheer Japanese banking reforms" by Terri Cullen, October 12, 1998

[249] *Ibid.* "Profit-taking halts a 2-day rally" by Terri Cullen, October 13, 1998

yields despite being safe were well out of line with yields on other financial instruments, a reality which, with the second reduction of interest rates by the Fed on October 15, would help to fuel money back into the riskier market.[250]

This market see-saw based on rumors and disappointed expectations illustrates quite well the problematic psychological aspect of global markets that so worried *the Wall Street Journal*. Another aspect of that problem was that while during most of the 1990s investors had viewed sell-offs as a time to buy, they now viewed rallies as a time to sell. As Richard McCabe, chief market strategist at Merrill Lynch, said, "Right now, I'd rather sell the rally."[251] And in Tuesday October 27th the Conference Board reported that consumer confidence had fallen fro the fourth straight month bringing it to a lower level than at any time since December 1996.[252]

Lawrence Lindsey, a Former governor of the Federal Reserve and a resident scholar of the American Enterprise Institute, observed that the dominant reality in the global financial markets was "the headlong rush to quality. Investors have ceased to care so much about the return they get on capital, and are preoccupied with the return of capital. This means a high degree of insensitivity to the price of money: Interest rates don't matter much when you're worried about losing your principal."[253] Alan Greenspan reiterated that point in a speech before the National Association of Business Economists on October 7th when he warned that investors across the world, concerned about the growing risked posed by international equities markets were pulling their money out. This was, he said, creating a "looming credit crunch" that would inevitably depress US consumer spending and put the breaks on an economy that had become increasingly dependent on such spending.[254] As Christopher Wood was to express the principle, "[C]redit inflations always breed credit deflations."[255]

On Thursday afternoon, October 15, 1998, in an attempt to counter-act the approaching credit crunch, Alan Greenspan announced a second cut in short-term interest rates, lowering them a quarter of a percent from 5.25 to 5, and lowered its discount rates for the first time in three years, also a quarter of a point, from 5 to 4.75. The intent was to ease credit on home loans, credit cards, auto loans, and business loans. This move, the second time in three weeks that the Fed had lowered its rates, surprised the markets and sent storks soaring. The Dow enjoyed its third largest point gain in history, jumping almost 331 point. and closed at its highest level since August 26th.[256] This was a gain of 4%.[257] Volume on the Big Board totaled 1.03 billion shares, the fourth busiest day in its history. The NASDAQ added ten points.[258] By mid-November the Dow was up 16% and the NASDAQ up 31%. It marked one of the most astonishing turnarounds in recent financial history. But analysts were split over whether this marked the beginning of a new bull market or whether it was a rehash of events in 1929 where the market crashed, was bid up again as a prelude to a much longer decline.[259] One problem was that though the Fed had hoped that banks would make lending easier, banks did not initially respond. They looked not at the lower rates but at the rising

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[250] *The Wall Street Journal*, "Stocks' Wild Swings Open a Classic Divide Between Bulls, Bears" by E>S> Browning and Pui-Wing Tam, Vol. CII, No. 95, Thursday, November 12, 1998, p. A10
[251] *MSNBC*, "Wall Street clobbered" by Colin Hurlock, August 31, 1998
[252] *Ibid.*, "Consumer confidence falls sharply," October 27, 1998. The consumer confidence index was started in 1967 and is based on responses gleaned from questionnaires sent to five thousand households across America.
[253] *The Wall Street Journal*, "Lower Rates Are Not Enough" by Lawrence Lindsey, Vol. CII, No. 62, Monday, September 28, 1998, p. A28
[254] *MSNBC*, "Stocks are mixed as investors focus on Greenspan remarks" by Terri Cullen, October 7, 1998
[255] *The Wall Street Journal*, "Embrace Creative Destruction" by Christopher Wood, Vol. CII, No. 79, Wednesday, October 21, 1998, p. A22
[256] *The Dallas Morning News*, "Fed lowers rates again" by Jim Landers, Friday, October 16, 1998, front page
[257] *MSNBC*, "Rate cuts sends stocks soaring" by Gary Seidman, October 15, 1998
[258] *Ibid.*, "Dow surpasses 8400 in rate-cut rally" by Terri Cullen, October 16, 1998
[259] *The Wall Street Journal*, "Stocks' Wild Swings Open a Classic Divide Between Bulls, Bears" by E.S. Browning and Pui-Wing Tam, Vol. CII, No. 95, Thursday, November 12, 1998, front page

risks: increasing credit burdens on borrowers, low personal savings, and rising bankruptcies.[260] Indeed, as it so often was in the United States, the level of personal savings was becoming a real concern. Lawrence Lindsey, former governor of the Federal Reserve, believed it was the single greatest cause for concern.[261] According to the Department of Commerce, in September and October of 1998 US households spent more than they saved,[262] something that had not happened since the 1930s.[263] Lindsey argued that Americans on average spent everything they earned and then some.[264] But it should be noted that because so many had invested in the stock market, and personal net worth had soared with the stock market, consumer spending rates were running at only about 30% of consumer net worth, a ratio that had dropped from 60% in 1990. While the observation does serve to counter concerns that American's were over-spending (one could say that Americans were not on a buying binge and eating into their accumulated capital, they were only spending their pay checks), it did point to two related problems.

First, it meant that if the stock market crashed and failed to recover, people could be badly hurt financially and have no cushion of savings to fall back on. As Stephen Roach, chief economist at Morgan Stanley Dean Witter described it, "Consumers are spending every nickel they make and counting on the stock market to do all their saving," a phenomenon that lays the foundation for "an all the more dramatic retrenchment of consumer demand if and when this asset bubble pops."[265]

Second, it meant there was no pent-up demand to build on in the future, and in a consumer driven economy like the one in the US an absence of demand is poison.[266] As Lindsey described it: in 1998 85% of the GDP had been based on increases in consumption. A more normal rate was 65%. This meant that 21% of the GDP expansion in 1998 had been financed by the expansion of consumption. During the Reagan years increased consumption financed only 9% of the GDP.[267]

While consumer spending might continue to fuel the US boom well into 1999, it cannot continue to fuel it indefinitely. Eventually the money will run out. In this regard it is worth noting that in early December the layoffs started. Companies began slashing payrolls at a rate not seen since the early 1990s. Of course then the US was in a recession or emerging from one, but these layoffs were occurring in a supposedly prosperous economy. In part they were caused by the Asian crisis. Asian countries were not buying American products and were flooding US markets with their own. Hence the demand for American goods was down. They were also partly the result of mergers like the one between Exxon and Mobil which ended up in a reduction of 7% of the oil giants' work force. Of these two, the first had the most potentially negative long term consequences. As William Sullivan, chief money market strategist at Morgan Stanley Dean Witter observed, "Many of these layoffs are based upon overcapacity in their respective industries, and this suggests unless there is a significant turnaround in global economic activity, the layoffs are likely to intensify."[268]

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[260] *Ibid.*, "Wall Street's Silver Lining Hides Some Clouds" by George Melloan, Vol. CII, No. 103, Tuesday, November 24, 1998, p. A23
[261] *Ibid.*, "The Best Insurance Against Global Recession" by Lawrence Lindsey, Vol. CII, No. 113, Wednesday, December 9, 1998, p. A22
[262] *Ibid.*, "The Outlook: Low US Savings: How Big a Problem?" by Bernard Wysocki Jr., Vol. CII, No. 121, Monday, December 21, 1998, front page
[263] *Ibid.*, "Wall Street's Silver Lining Hides some Clouds" by George Melloan, Vol. CII, No. 103, Tuesday, November 24, 1998, p. A23
[264] *Ibid.*, "The Best Insurance Against Global Recession" by Lawrence Lindsey, Vol. CII, No. 113, Wednesday, December 9, 1998, p. A22
[265] *Ibid.*, "With Dazzling Speed, Market Roars back To Another New High" by E.S. Browning, Greg Ip, and Leslie Scism, Vol. CII, No. 103, Tuesday, November 24, 1998, p. A10
[266] *Ibid.*, "The Outlook: Low US savings: How Big a Problem?" by Bernard Wysocki, Vol. CII, No. 121, Monday, December 21, 1998, front page
[267] *Ibid.*, "The Best Insurance Against Global Recession" by Lawrence Lindsey, Vol. CII, No. 113, Wednesday, December 9, 1998, p. A22
[268] *MSNBC*, "Suddenly, it's layoff season in US" by Kathleen Hays, December 3, 1998

Nevertheless the market continued its run through the end of the year. From mid-October through late November both the Dow and the NASDAQ registered spectacular gains. *The Wall Street Journal* reported:

> On average, it has taken the Dow Industrials five years this century to reach a new peak from their old one after a 20% drop. Although this drop wasn't quite 20%, the 129 days it took for the industrials to register a new high is still less than half the 275 days it took in 1990-91, the shortest recovery from a 20% decline ... recorded in the postwar period.[269]

Concerns about the looming impeachment of President Clinton coupled with worries about the continuing deterioration of Japan's economy brought the US markets down in early December,[270] a traditionally bullish month for Wall Street when money managers have money that must be spent, the market quickly made up the loss. But when the impeachment of President Clinton became an accomplished fact on Saturday, December 19th, both NASDAQ and Wall Street boomed.[271]

What have we learned? What can we expect?

Nine points stand out in our account.

First, since the US abandoned Bretton Woods in 1971 the IMF has transformed itself. It has become a lender of last resort and an economic tutor. It is a role for which the IMF was not initially designed and it is a role the IMF often performs poorly. In an effort to contain or reverse economic events in Asia, the IMF lent $18 billion to Thailand, $43 billion to Indonesia, $57 billion to South Korea, and $23 billion to Russia, for a total of $141 billion over the course of a year. Yet, the world was in worse shape than it was in 1994 when the IMF first began to intervene in Mexico.[272] IMF bailouts, even when successful, as the one in Mexico supposedly was, are ambiguous at best, and IMF failures, like the one in Indonesia, can be catastrophic. Too often the IMF has been willing to intervene to protect international investors at the expense of local business and labor. In part this is because foreign investment has become so tremendously important to growth, a reality that has given foreign investors a great deal of political clout. In addition the IMF and powerful economies like the ones that comprise the G-7 often work in tandem to assist and restructure troubled economies. This is perhaps inevitable, but it does smack of international meddling on a grand scale, almost an effort to remake the world in the image of the West. When IMF policies fail, there is a risk of extreme national backlash like the one we have seen in Malaysia where "Asian values" are trumpeted over Western ones. In an environment were tribalism is on the rise and where internationalization looks increasingly like Westernization, failed economic policies can have repercussions that go far beyond the economy.

Second, the world has become inextricably economically interdependent. National boundaries are more porous than ever. The power of nation states is more limited. Cities and the economic regions they define are re-emerging as the real power centers.[273] Some have argued that this interdependence, because it increases capital mobility, has made the world economy more resilient. In that view, one country's failure

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[269] *The Wall Street Journal*, "With Dazzling Speed, Market Roars Back To Another New High" by E.S. Browning, Greg Ip, and Leslie Scism, Vol. CII, No. 103, Tuesday, November 24, 1998, p. A10

[270] *MSNBC*, "Earnings worries, increasing fears of impeachment weigh on stocks" by Terri Cullen, December 14, 1998

[271] *Ibid.*, "Dow soars as Nasdaq, S&P hit new highs," story from *The Wall Street Journal* on *MSNBC*, December 24, 1998

[272] *The Wall Street Journal*, "Review & Outlook: Dousing the IMF Fires," Vol. CII, No. 70, Thursday, October 8, 1998, p. A17

[273] *The Wall Street Journal Europe*, "Trade Watchers Should Focus on Regions, Not Nations" by Kenichi Ohmae, Vol. XI, No. 2, Tuesday, February 2, 1993, p. 8

contributes to another country's success.[274] However, it is also true that in times of crisis like the one in Asia, money may flee developing markets for the safety of the West, meaning that developed economies will benefit as the expense of developing ones. Furthermore, interdependence may make recovery more difficult, especially for economies that have relied heavily on exports to finance their credit deficits.

Third, many of the developing economies grew increasingly dependent on debt, a reality which made them more vulnerable to speculators. This created an economic environment where the level of investor expectations when combined with rumor produced great market instability. This points to the importance of transparency in the new economy. Investors need reliable information. The free flow of information coupled with the freedom of economic choice seem more conducive to sound economic growth, especially in credit economies, than do restricted information and limited economic options. And this suggests that stable democratic institutions are more amenable to vigorous economies than are more autocratic governments. When a single party rules for a long time, as was the case in Japan, corruption becomes systemic. And that problem is exacerbated when there are no real political alternatives as is the case in China. Corruption breeds inefficiency, and inefficiency creates waste and poverty. In the world of credit, freedom and prosperity go together. As Mark Mobius, president of Templeton Emerging Markets Fund, put it, "Perhaps one thing we've learned over the year is that unless you have a legally based society where peoples' rights are respected, we're going to be in trouble...especially as foreign investors."[275]

Fourth, as currently constituted, this economic/political synergy generally works to bolster the power of politicians because they are often able to leverage economic issues to gain political ends. However, sometimes, as in the case of Mexico during the 1994 elections, political decisions can work in unintended ways to undermine a nation's economy, and sometimes, as in the case of Indonesia in 1998, unforeseen economic shifts can throw a nation into political chaos.

Fifth, bubbles occur when a significant percent of an economy's assets are overvalued, and, as we saw in Japan, Thailand, and even Hong Kong, bubbles by their nature cannot be sustained. There must be some genuine relationship between the cost of a thing and its actual value. Transparency in both the economic and the political spheres is probably the best single way to prevent a bubble economy from forming.

Sixth, there is a real ethical dimension to economic decisions as illustrated not only by the phrase "moral hazard" but also by realities like nuclear proliferation. And there is a real psychological dimension as well. Economics is profoundly human. As such ~~they~~ Economies work best when they function within an agreed upon set of moral rules and ethical values and when the participants enjoy some shared standards. There needs to be a greater awareness that local has become global and that decisions, whether they involve selling nuclear reactors to Iran or raising the federal fund rate, should not be made without due consideration being give to their international ramifications. In this regard it is hard to avoid concluding that much of the West's prosperity rests on decisions which impoverished millions in the non-Western world.

Seventh, the absence of a shared economic standard has contributed significantly to a major breakdown in world markets. Currencies, since the failure of the Bretton Woods standard in 1971, have been unstable. In an effort to achieve some level of stability, many currencies pegged their values to the US dollar. Currencies which maintained their pegs (the Hong Kong dollar and the Argentine peso are the most obvious examples)[276] did better than those which devalued but as the example of Mexico's "tesonobos" illustrates, pegged currencies are vulnerable to interest rate decisions made by the US Fed. However, it seems fair to conclude that devaluation is generally a bad idea and that the inflation it causes is a big danger.

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274 *The Wall Street Journal*, "Has Globalization Built a House of Cards? No, a Beehive" by David Ranson and Penny Russell, Vol. CII, No. 109, Thursday, December 3, 1998, p. A22

275 *MSNBC*, "Lessons learned on Asia's ledge" by Kari Huus, December 24, 1998

276 *The Wall Street Journal*, "Look at Whose Money Survived the Crisis Weeks" by George Melloan, Vol. C, No. 80, Tuesday, November 4, 1997, p. A23

Eighth, we should also consider the ecological impact of recession. In balance vigorous economies seem more ecologically friendly than economies in crisis. In a real sense ecological concerns are high level concerns that require significant financial investment to resolve. Economies, to afford such investments, must be strong. When economies fail, desperate people are more tempted to pillage than to protect the environment. In other words, prosperity is "green."

Finally, we need to consider what might happen in the United States in the near future. While the service nature of the US economy has done much to protect Americans from the global economic collapse, there are reasons to believe that it cannot do so forever. Because the US economy is largely powered by domestic consumption, the lack of pent-up demand is likely to result in slower growth in 1999. Furthermore, many Americans are heavily in debt and many, having saved little, are dipping into their capital assets. Because so many Americans rely so heavily on the stock market for their future wealth, a stock market collapse could be prove devastating. So far that has not happened, but the turbulent nature of US stocks during 1998 bodes ill for 1999. Many have already been hurt by the new economic realities, and their number could grow.

Having said that, the new economy is complex and difficult to evaluate with any precision. Often the results one seeks or the success one claims depend on one's perspective. For the standpoint of the investors, the Mexican bailout was a positive. From the standpoint of a Mexican worker or shop owner, the results were far more ambiguous. There is a massive amount of money out there, far more than any government can control, and it will flow in directions difficult to anticipate and with consequences hard to predict. Nor is it easy to see the kind of global impact something like Y2K will have. No thing is certain, however: 1999 will be a very interesting economic year.

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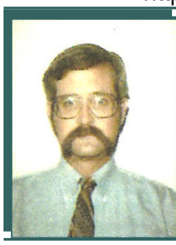

Dr. Ben M. Carter Ph.D

Ben Michael Carter earned a B.A. in Economic History from the University of Wisconsin, Milwaukee, an M.A. in theological studies from Wheaton College, Illinois, an M.Th. from the University of Aberdeen in Scotland, U.K., and a Ph.D in History of Christianity in the non western world from the University of Edinburgh in Scotland, United Kingdom. Mike was also a member of the Evangelical Theological Society. Married to Salma Carunia from Dohnavur Fellowship, Tirunelveli, South India.

May 16, 1991

EVALUATION OF TEACHING

Ben M. Carter has been teaching Oral English to the students of '89 English Class and '89 Tourism Class, and a Survey to U.K. and U.S.A. to the students of '89 Tourism Class from September 1990 to June 1991. He is conscientious and earnest in his teaching. According to the actual English level of the students, he compiles teaching materials for the students. Paying special attention to the practical use to the language as well as the effect of teaching, he tries his best to make the students master what they have learned. Vivid in his lectures, he manages to arouse the interest of the students. In order to make each student have a chance to practise oral English, he divides the whole class into several groups in his teaching. He gives coaching patiently. He is strict to the students. He always assigns homework and corrects the mistakes in the exercises. He discusses the problems existing in the students and in the teaching with the Chinese co-teacher to improve his work. He organizes the students to watch English films on TV on some importent historical events to make the Tourism students have a better understanding of a survey in U.K and U.S.A. The students have raised their English level under his teaching. Now most of the students can talk with a native English teacher about their daily life. Besides his normal teaching tasks, he gives lectures on English writing to some young teachers in our department. He checks carefully the compositions written by them and he is willing to fulfill other teaching tasks we ask him to do. His teaching is appreciated by both students and the teachers in the English department at Nanchang Teachers' College for vocational training.

Foreign Language Department.
The President

Zhang Qi Ming.

南昌職業技術師範学院

June, 1991
Nanchang Teachers' College
People' Republic of CHINA.

TO WHOM IT MAY CONCERN:

Ben Micheal Carter has been teaching English to the class of '89 English and Tourism. He also taught a course of a Survey to U.K and U.S.A from September 1990 to June 1991. He is conscientious and earnest in his teaching. He compiles teaching materials according to the learning level of the students also do a lot of research in his own time. He is vivid in his lectures and also manages to arouse the interest of the students. He organizes the student groups to practise what they have learned in the classes at his free time and take great interest in individual interests and helps them with their projects.

Mr. Carter also teaches English composition class to our teachers at the foreign language department teachers. His lectures are much appreciated by both the students and the faculties of this Nanchang Teachers' College.

Sincerely,

President Zhang Qi Ming.

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南昌职业技术师范学院教务处

May 16, 1991
Nanchang Teachers' College
P.Rep.of CHINA.

To Whom It May Concern:

Salma C. Carter has been teaching Oral English to the students of '90 English class and Tourism class from Sept.1990 to June 1991. She is conscientious in her teaching. She compiles some additional teaching materials on the basis of the text book. In her lectures, she pays attention to the technique of language teaching. For an intant the method from easy to difficult and the elicitation method of teaching, ect. The students feel that her teaching is vivid and easy to understand, especially the characteristics of the future work of the Tourism section students, she adopts the on-the-spot method and the audeo-video method to enlighten the students' interests and raise their ability to use oral English. She is strict but conduct the classes with great enthusiasm. She does gives extra coaching and corrects the students notebooks regularly. Inorder to improve her work she often discuss the problems with her Chinese co-teacher. The English level of our this year students have been improved a lot by her teaching in this school and we feel that the anticipated teaching goal is achieved for this year. Apart from the freshmen of English class Mrs. Carter also teaches introductory course to the undergrads at the Physics Department and her teaching effects and achievements are affirmed and very much appreciated by both the students and the faculty of this Nanchang Teachers' College for vocational training.

Foreign Language Department

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From: chetan balhotra [mailto:balhotra@hotmail.com]
Sent: Sunday, November 24, 2013 1:36 AM
To: Nanda rainbrow@xtra.co.nz
Subject: FW: Meet Your New Boss: Buying Large Employers Will Enable China To Dominate 1000s Of U.S. Communities

Meet Your New Boss: Buying Large Employers Will Enable China To Dominate 1000s Of U.S. Communities

Source: Michael Snyder, Guest Post

Are you ready for a future where China will employ millions of American workers and dominate thousands of small communities all over the United States? Such a future would be unimaginable to many Americans, but the truth is that it is already starting to happen. Chinese acquisition of U.S. businesses set a new all-time record last year, and it is on pace to absolutely shatter that record this year. Meanwhile, China is voraciously gobbling up real estate and is establishing economic beachheads all over America. If China continues to build economic power inside the United States, it will eventually become the dominant economic force in thousands of small communities all over the nation. Just think about what the Smithfield Foods acquisition alone will mean. Smithfield Foods is the largest pork producer and processor in the world. It has facilities in 26 U.S. states and it employs tens of thousands of Americans. It directly owns 460 farms and has contracts with approximately 2,100 others. But now a Chinese company has bought it for $4.7 billion, and that means that the Chinese will now be the most important employer in dozens of rural communities all over America. If you don't think that this is important, you haven't been paying much attention to what has been going on in the world. Thanks in part to our massively bloated trade deficit with China, the Chinese have trillions of dollars to spend. They are only just starting to exercise their economic muscles.

And it is important to keep in mind that there is often not much of a difference between "the Chinese government" and "Chinese corporations". In 2011, 43 percent of all profits in China were produced by companies that the Chinese government had a controlling interest in. Americans are accustomed to thinking of "government" and "business" as being separate things, but in China they are often one and the same. Even when there is a separation in ownership, the reality is that no major Chinese corporation is going to go against the authority and guidance of the Chinese government. The relationship between government and business in China is much different than it is in the United States.

Over the past several years, Chinese companies have become increasingly aggressive. Last year a Chinese company spent $2.6 billion to purchase AMC entertainment – one of the largest movie theater chains in the United States. Now that Chinese company controls more movie ticket sales than anyone else in the world. At the time, that was the largest acquisition of a U.S. firm by a Chinese company, but now the Smithfield Foods deal has greatly surpassed that.

But China is not just relying on acquisitions to expand its economic power. The truth is that "economic beachheads" are being established all over America. For example, Golden Dragon Precise Copper Tube Group, Inc. recently broke ground on a $100 million plant in Thomasville, Alabama. I am sure that many of the residents of Thomasville, Alabama will be glad to have jobs, but it will also become yet another community that will now be heavily dependent on communist China.

And guess where else Chinese companies are putting down roots?

Detroit.

Yes, the poster child for the deindustrialization of America is being invaded by the Chinese. The following comes from a recent CNBC article…

> Dozens of companies from China are putting down roots in Detroit, part of the country's steady push into the American auto industry.
>
> Chinese-owned companies are investing in American businesses and new vehicle technology, selling everything from seat belts to shock absorbers in retail stores, and hiring experienced engineers and designers in an effort to soak up the talent and expertise of domestic automakers and their suppliers.

If you recently purchased an "American-made vehicle", there is a really good chance that it has Chinese parts in it.

In fact, it is becoming harder and harder to get auto parts that are actually made in America by American companies. A lot of those companies are dying off. One example of this is a battery maker that had received $132 million from the federal government that was recently gobbled up by a huge Chinese corporation…

> Industry analysts are hard-pressed to put a number on the Chinese suppliers operating in the United States. "We simply don't know how many there are," said David Andrea, an official with the Original Equipment Suppliers Association, a trade organization for auto parts makers.
>
> In one of the more prominent deals, the Wanxiang Group bought most of the assets of the battery maker A123 Systems, which filed for bankruptcy last year despite receiving $132 million of $249 million in federal grants to build two factories in Michigan.
>
> Congressional Republicans criticized the deal, saying A123's technology could support military applications in China. Still, the buyout was approved this year by the Committee on Foreign Investment in the United States, a federal government panel.

China seems particularly interested in acquiring energy resources in the United States. For example, did you know that China is actually mining for coal in the mountains of Tennessee?

Guizhou Gouchuang Energy Holdings Group spent 616 million dollars to acquire Triple H Coal Co. in Jacksboro, Tennessee. At the time, that acquisition really didn't make much news, but now a group of conservatives in Tennessee is trying to stop the Chinese from blowing up their mountains and taking their coal. The following is from a Wall Street Journal article back in March…

> The Tennessee Conservative Union began airing an ad Tuesday that says lawmakers have failed to protect the state's scenic mountains and are allowing the "Chinese to destroy our mountains and take our coal…the same folks who hold our debt."

But when it comes to our energy resources, China has been most interested in our oil and natural gas. It is a complete and total mystery why the federal government would allow China to buy up our precious domestic sources of energy, but it is happening. The following is a list of some of the oil and natural gas deals that China has been involved in during the last few years that was compiled by the Wall Street Journal…

> **Colorado:** Cnooc gained a one-third stake in 800,000 acres in northeast Colorado and southeast Wyoming in a $1.27 billion pact with Chesapeake Energy Corp.
>
> **Louisiana:** Sinopec has a one-third interest in 265,000 acres in the Tuscaloosa Marine Shale after a broader $2.5-billion deal with Devon Energy.
>
> **Michigan:** Sinopec gained a one-third interest in 350,000 acres in a larger $2.5 billion deal with Devon Energy.
>
> **Ohio:** Sinopec acquired a one-third stake in Devon Energy's 235,000 Utica Shale acres in a larger $2.5 billion deal.
>
> **Oklahoma:** Sinopec has a one-third interest in 215,000 acres in a broader $2.5 billion deal with Devon Energy.
>
> **Texas:** Cnooc acquired a one-third interest in Chesapeake Energy's 600,000 acres in the Eagle Ford Shale in a $2.16-billion deal.
>
> **Wyoming:** Cnooc has a one-third stake in 800,000 acres in northeast Colorado and southeast Wyoming after a $1.27 billion pact with Chesapeake Energy. Sinopec gained a one-third interest in Devon Energy's 320,000 acres as part of a larger $2.5 billion deal.
>
> **Gulf of Mexico:** Cnooc Ltd. separately acquired minority stakes in some of Statoil ASA's leases as well as six of Nexen Inc.'s deep-water wells.

How could we be so stupid?

Sadly, as our politicians endlessly bicker China just continues to aggressively push ahead.

And pretty soon China may want to build entire cities in the United States just like they have been doing in other countries. According toBloomberg, right now China is actually building a city larger than Manhattan just outside of the capital of Belarus…

> China is building an entire city in the forests near the Belarusian capital Minsk to create a manufacturing springboard between the European Union andRussia.
>
> Belarusian President Aleksandr Lukashenkoallotted an area 40 percent larger than Manhattanaround Minsk's international airport for the $5 billion development, which will include enough housing to accommodate 155,000 people, according to Chinese and Belarusian officials.

And this is actually already happening on a much smaller scale in this country. For example, as I have written about previously, a Chinese company known as "Sino-Michigan Properties LLC" has purchased 200 acres of land near the little town of Milan, Michigan. Their stated goal is to construct a "China City" that has artificial lakes, a Chinese cultural center and hundreds of housing units for Chinese citizens.

In other cases, large chunks of real estate in the middle of major U.S. cities are being gobbled up by Chinese "investors". Just check out what a Fortune article from a while back says has been happening in Toledo, Ohio…

> In March 2011, Chinese investors paid $2.15 million cash for a restaurant complex on the Maumee River in Toledo, Ohio. Soon they put down another $3.8 million on 69 acres of newly decontaminated land in the city's Marina District, promising to invest $200 million in a new residential-commercial development. That September, another Chinese firm spent $3 million for an aging hotel across a nearby bridge with a view of the minor league ballpark.

Are you starting to get the picture?

China is on the rise and America is in decline. If you doubt this, just read the following list of facts which comes from one of my previous articles entitled "40 Ways That China Is Beating America"…

#1 As I mentioned above, when you total up all imports and exports of goods, China is now the number one trading nation on the entire planet.

#2 During 2012, we sold about 110 billion dollars worth of stuff to the Chinese, but they sold about 425 billion dollars worth of stuff to us. That was the largest trade deficit that one nation has had with another nation in the history of the world.

#3 Overall, the U.S. has run a trade deficit with China over the past decade that comes to more than **2.3 trillion** dollars.

#4 China now has the largest new car market in the entire world.

#5 China has more foreign currency reserves than anyone else on the planet.

#6 China is the number one gold producer in the world.

#7 China is also the number one gold importer in the world.

#8 The uniforms for the U.S. Olympic team were made in China.

#9 85 percent of all artificial Christmas trees are made in China.

#10 The new World Trade Center tower is going to include glass that has been imported from China.

#11 The new Martin Luther King memorial on the National Mall was made in China.

#12 One of the reasons it is so hard to export stuff to China is because of their tariffs. According to the New York Times, a Jeep Grand Cherokee that costs $27,490 in the United States costs about $85,000 in China thanks to all the tariffs.

#13 The Chinese economy has grown 7 times faster than the U.S. economy has over the past decade.

#14 The United States has lost a staggering 32 percent of its manufacturing jobs since the year 2000.

#15 The United States has lost an average of 50,000 manufacturing jobs per month since China joined the World Trade Organization in 2001.

#16 Overall, the United States has lost a total of more than 56,000 manufacturing facilities since 2001.

#17 According to the Economic Policy Institute, America is losing half a million jobs to China every single year.

#18 China now produces more than twice as many automobiles as the United States does.

#19 Since the auto industry bailout, approximately 70 percent of all GM vehicles have been built outside the United States.

#20 After being bailed out by U.S. taxpayers, General Motors is currently involved in 11 joint ventures with companies owned by the Chinese government. The price for entering into many of these "joint ventures" was a transfer of "state of the art technology" from General Motors to the communist Chinese.

#21 Back in 1998, the United States had 25 percent of the world's high-tech export market and China had just 10 percent. Ten years later, the United States had less than 15 percent and China's share had soared to 20 percent.

#22 The United States has lost more than a quarter of all of its high-tech manufacturing jobs over the past ten years.

#23 China's number one export to the U.S. is computer equipment, but the number one U.S. export to China is "scrap and trash".

#24 The U.S. trade deficit with China is now more than 30 times larger than it was back in 1990.

#25 China now consumes more energy than the United States does.

#26 China is now the leading manufacturer of goods in the entire world.

#27 China uses more cement than the rest of the world combined.

#28 China is now the number one producer of wind and solar power on the entire globe.

#29 There are more pigs in China than in the next 43 pork producing nations combined.

#30 Today, China produces nearly twice as much beer as the United States does.

#31 Right now, China is producing more than three times as much coal as the United States does.

#33 China now produces 11 times as much steel as the United States does.

#34 China produces more than 90 percent of the global supply of rare earth elements.

#35 China is now the number one supplier of components that are critical to the operation of U.S. defense systems.

#36 A recent investigation by the U.S. Senate Committee on Armed Services found more than one million counterfeit Chinese parts in the Department of Defense supply chain.

#37 15 years ago, China was 14th in the world in published scientific research articles. But now, China is expected to pass the United States and become number one very shortly.

#38 China now awards more doctoral degrees in engineering each year than the United States does.

#39 The average household debt load in the United States is 136% of average household income. In China, the average household debt loadis 17% of average household income.

#40 The Chinese have begun to buy up huge amounts of U.S. real estate. In fact, Chinese citizens purchased one out of every ten homes that were sold in the state of California in 2011.

And what we have seen so far may just be the tip of the iceberg as far as Chinese "investment" in U.S. real estate is concerned. The following is a brief excerpt from a Bloomberg article that was posted just last week…

> China is studying the possibility of investing a portion of its $3.4 trillion in foreign-exchange reserves in U.S. real estate, said two people with direct knowledge of the situation.
>
> The State Administration of Foreign Exchange began the study after seeing signs of a recovery in the U.S. property market, said the people, who asked not to be identified as they weren't authorized to speak publicly about the matter. China may acquire properties, invest in real estate funds or buy stakes in property companies, they said. The safety of the investments will be the top priority, said the people, who didn't elaborate on a timetable or other details.

So what can we do about all of this?

Unfortunately, not a whole lot. Both major political parties seem to be fully convinced that merging our economy with the economy of communist China is a great idea. I would not expect major changes in our policies regarding China any time soon.

For now, I will just leave you with one piece of advice…

Learn to speak Chinese. You might need it someday.

Once for All

Ben M. Carter

Quantum mechanics presents Christianity with two significant challenges. Its Copenhagen Interpretation, being based on randomness, undermines the doctrine of God's providence. Its multiple universe or multiverse interpretation contradicts the doctrine that Jesus died once for all. In this paper I will address both issues, though my primary focus will be on the second one. I will describe what lies behind the view of reality as multiple and then argue that the doctrine of the resurrection means that the multiverse version must be wrong. Against this background, I will also argue that God as creator makes an appeal to randomness moot.

Christ died unto sin once (Rom. 6:10), giving himself as a ransom for all (I Tim. 26). Christ was offered once to bear the sins of many (Heb. 9:28). And we are sanctified by Christ having offered his body once for all (Heb. 10:10). Once for all. The doctrine suggests time is finite because, in the context of God's having created the universe complete with time, once for all limits possibilities and makes room for the unique. In contrast, a universe that is temporally infinite overthrows uniqueness as surely as does one that is cyclical. Indeed, the concept of cycles merely serves to make the infinite more comprehensible. Therefore, once for all is the doctrine Augustine used to argue that time is both finite and linear.

To make his point, Augustine contrasted the Christian concept of time and space with the "Epicurean fantasy" that both are infinite in scope and that there are, as a result, countless worlds.[1] Time and space are not infinite, Augustine said, but had a beginning.[2] Then proclaiming the uniqueness of Christ because he died once for all our sins, Augustine affirmed the linear nature of time,[3] even insisting that cyclical time is a blasphemous concept.[4]

Thus things stood in the Christian West for many centuries. Even Newton's universe, though spatially infinite, was temporally young.[5] Then in the middle of the twentieth century, all this began to change. Courtesy of astrophysics, the concept of cyclical time reappeared in the hypothesis that our universe might be a moment within a pattern of eternal expansion and contraction that expressed the interaction of Big Bang propulsion and Big Crunch gravity. The recent discovery of Dark Energy seems to have put that conceit to rest, at least for now, but, courtesy of quantum mechanics, a variant of the Epicurean many worlds scenario also reappeared in the century just past.

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[1] Augustine, *The City of God* (translated by Henry Bettenson, Penguin, 1981), Book XII, Chapter 5, p. 434. Worlds here are to be understood not as planets like Mars independent and distinct from our own, nor as cultural or temporal constructs like "the world of the Muslim" or "the world of the nineteenth century," but rather as reconstituted copies of Earth that emerge in the random interaction of atoms throughout eternity.

[2] Ibid., Chapter 6, pp. 435 - 435

[3] Ibid., Chapter 14, p. 488

[4] Ibid., Chapter 21, pp. 498 - 502

[5] It is worth noting that the idea that the universe was created to appear older than it is, was created in mid-process, so to speak, though dismissed as preposterous by scientists today, was considered quite acceptable by Newton who saw it as a necessary corollary to his spatially infinite universe since it explained why gravity did not cause the stars to fall into one another. Heinrich Wilhelm Mathaus Olbers (1758 - 1840) is credited with pointing out that, if Newton was right, the night sky should be uniformly white with stars. Olbers' paradox was not resolved until, subsequent to Edwin Hubble's discovery that distance galaxies are red shifted and hence moving away from us, it was realized that the universe was spatiotemporally limited. (See *The Privileged Planet* by Guillermo Gonzalez and Jay W. Richards, Regnery Publishing, Inc., Washington, D. C., 2004, Section 2 "The Broader Universe," Chapter 9 "Our Place in Cosmic Time," sub-section "Paradox Solved," pp. 191 - 193)

To better understand what this interpretation of physics is saying and why it is saying it, we should evaluate it against Newton's and Einstein's view of space. For Newton space was something physical,[6] an arena that provided an inflexible, immutable form in which objects moved[7] and which he identified with the sensorium of God.[8] Indeed, Newton considered space so conceived to be his most important discovery.[9] While Einstein envisioned space as something elastic and powerfully active,[10] something that, isolated from matter and energy, was flat,[11] but that massive objects and energy could warp,[12] so that it expressed the force of gravity geometrically,[13] and governed gravitational physics,[14] he agreed with Newton that spacetime was the absolute physical reality.[15] Spacetime was a fabric that simultaneously embraced the past and future,[16] in which time does not pass[17] and nothing changes.[18]

In the Newtonian or Einsteinian universe, all is fixed from the moment of creation. What we perceive as motion is in fact the expression of secondary causality through a preexisting matrix: space or spacetime.[19] Indeed, in this regard Roger Penrose has suggested that our sense that time flows is something our consciousness imposes on a static universe.[20] (Such a view easily accommodates Augustine but does not sit well with openness theology.)

Quantum mechanics conceives the world very differently.

In 1913 Niels Bohr while working with Ernest Rutherford at the University of Manchester began to explore the notion that instead of imagining electrons as analogous to little planets orbiting nuclear suns, it was better to think of them as confined to specific levels or shells around a nucleus and as moving between levels or shells as they absorbed or released specific bits or quanta of energy. After returning to Copenhagen, Bohr, at the urging of Rutherford, published his idea which in time became known as the Copenhagen interpretation.

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[6] Greene, Brian, *The Fabric of the Cosmos* (Alfred A. Knopf, New York, 2004), Part I "Reality's Arena," Chapter 2 "The Universe and the Bucket," subsection "The Bucket," p. 27

[7] Ibid., Chapter 1 "Roads to Reality," subsection "Classical Reality," p. 8, subsection "Relativistic Reality," p. 10

[8] Ibid., Chapter 2 "The Universe and the Bucket," subsection "Space Jam," p. 29. Newton meant the space provided the theater that allowed God in some way to interact with us, "see" what we are doing and "hear" our prayers.

[9] Ibid., p. 31

[10] Ibid., Chapter I, subsection "Relativistic Reality," p. 10

[11] Ibid., Chapter 3 "Relativity and the Absolute," subsection "Warps, Curves, and Gravity," p. 69

[12] Ibid., p. 70; Part IV "Origins and Unification," Chapter12 "The World on a String," subsection "Jitters and Their Discontent," p. 333, Part V "Reality and Imagination," Chapter 14 "The World on a String," subsection "Einstein in Drag," p. 416, subsection "Catching the Wave," pp. 418, 419, Chapter 15 "Teleporters and Time Machines," subsection "Building a Wormhole Time Machine," 467

[13] Ibid., subsection "Unification in Higher Dimensions," p. 361

[14] Ibid., subsection "String Physics and Extra Dimensions," p. 370

[15] Ibid. Part II "Time and Experience," Chapter 5 "The Frozen River," subsection "The Persistent Illusion of Past, Present, and Future," p. 139

[16] Ibid., subsection "Does Time Flow", p. 132

[17] Ibid., subsection "Experience and the Flow of Time," p. 141

[18] Ibid. Part V, Chapter 15, subsection "Rethinking the Puzzles," pp. 451 - 453

[19] One could argue that this description of space presupposes a monotheistic backdrop. Newton was not an orthodox Christian, he was an Arian, and Einstein was a pantheist in the tradition of Spinoza (see Leopold Infeld's *Albert Einstein* [Charles Scribner's Sons, New York, 1950], Chapter VI "Beyond the Revolutions?", p. 122), but both were monotheists, and their monotheism may well have predisposed them to imagine space as they did.

[20] Penrose, Roger, *The Emperor's New Mind* (Penguin Books, 1991), Chapter 10 "Where lie the physics of the mind?", subsection "The strange role of time in conscious perception," p. 444

In his doctoral thesis in 1923 Louis de Broglie argued that subatomic particles, rather than behaving as specific points, act like standing waves and that these waves have frequencies that are simultaneously specific and dissimilar. Later in that decade Erwin Schrodinger, while reflecting on de Broglie's work, developed his famous equation to describe how such waves might function. Max Born reasoned that Schrodinger's equation was best interpreted in terms of probabilities, but that insight left many people, including Schrodinger himself, uncomfortable since it meant that randomness was built into the very fabric of nature.

According to the Schrodinger equation, as Born understood it, a card perfectly balanced on its edge will not stand forever as predicted in classical physics. Instead, it will fall, but when it falls, it will fall face down and face up at the same time. In other words, the card when it falls will obey a continuous and smooth wave function that is called "unitary" and will create two realities that exist in superposition. However, when we observe the card, our act of observation causes the wave function to "collapse" so that only one part of it survives. Thus we see the card randomly falling face up or face down. We do not see it doing both. We do not see the cards in superposition.[21]

In 1957 Hugh Everett III, while a doctoral candidate at Princeton University, argued that in fact the universe evolves in a unitary way and that the wave function does not collapse. Instead the observer and the card continue to exist in two different places, each place corresponding to a part of the wave function. Everett's idea, formally known as the relative-state formulation, became known popularly as the many worlds interpretation of quantum mechanics. The idea, though initially ignored, has been confirmed via experiments first proposed in 1978 by John Archibald Wheeler and successfully conducted in 1984. The experiment, which showed that a single photon could be in two places at once, has been successfully repeated with atoms, small molecules, and most recently with sixty atom buckyballs.[22] Thus they seem to confirm Everett's prediction. The obvious question is: if these alternative worlds exist, why do we not perceive them?

In response to this question H. Dieter Zeh, Wojciech H. Zurek, and others during the later decades of the twentieth century introduced the idea of decoherence. These researchers argued that the ideal superposition created by the falling card is coherent but that the coherent state can be maintained only so long as it is isolated from the rest of the world. It is the environment itself which destroys coherence and makes the superposition unobservable. Because it is impossible for us to keep large objects isolated so as to prevent decoherence, and because our brains are themselves part of the environment, we never see superposition. Though from a technical standpoint the wave function created by the falling card never collapses, decoherence creates a situation that is indistinguishable from a collapse.[23]

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[21] *Scientific American*, Vol. 284, No. 2, February 2001, "100 Years of Quantum Mysteries" by Max Tegmark and John Archibald Wheeler, pp. 54 - 61. Schrodinger, in protest against such a conclusion and intending to illustrate its silliness, proposed his famous thought experiment or gedanken in which a cat sealed in a container might be both dead and alive at the same time since no observer had yet looked into the container to collapse the wave function and establish the condition of the cat (*The New York Times*, *Science Times*, "Quantum Theory Tugged, And All of Physics Unraveled" by Dennis Overbye, section "Quantum Wars p. D4). Of course one might counter that the cat itself qualified as an observer of its own condition and thus collapsed the wave function moment by moment.

[22] For a description of the buckyball experiment, see "Quantum interference experiments with large molecules" by Olaf Nairz, Markus Arndt, and Anton Zeilinger in the *American Journal of Physics*, Vol. 71, No. 4, April 2003, pp. 319 - 325. This article is also available online at the American Association of Physics Teachers web site http://ojps.aip.org/ajp/

[23] *Scientific American*, Vol. 284, No. 2, February 2001, "100 Years of Quantum Mysteries" by Max Tegmark and John Archibald Wheeler, pp. 54 - 61; Deutsch, David, *The Fabric of Reality* (Penguin, 1997), Chapter 2 "Shadows," p. 50. While Deutsch admits that the "multiverse" interpretation remains the minority opinion among physicists, he argues that this is true for reasons that have much more to do with philosophy than science. *The Fabric of Reality* provides what is probably the finest defense currently available for the proposition that quantum theory is best explained by assuming the existence of a

Thus the multiverse hypothesis addresses quantum randomness. Reality is not the chance outcome of countless quantum probabilities, rather all possibilities are actualized. If true, and there is mounting evidence, both experimental and mathematical, that it may be, this has profound consequences for our Christian faith.

For openness theology with its emphasis on possibilities as real options, the multiverse means there must be universes, perhaps trillions of them, where Adam never lived, where Adam lived but did not sin, or where Adam sinned but God elected not to redeem that sin. There must be universes, perhaps trillions of them, where Christ was incarnated but chose to avoid the cross, or where Christ was crucified but did not rise, and so on. Plainly this is a huge problem for the openness position.

But this model challenges Augustine's doctrine as well, not only for the above mentioned options, but also because it means that Christ did not die once but died again and again, even has he was being crucified. This is not the same as speculating about whether there might be sinless intelligent life on other worlds in this universe, or worlds where Christ may or may not have chosen to die a redemptive death. In such cases we could claim that Augustine's once for all argument applies to this world only. Rather the multiverse scenario supposes that our world is constantly producing trillions of alternative realities, each of which generates trillions more, and so on. These are versions, albeit increasingly distant versions, of our own world cascading through nothingness in a vast deluge of interrelated being. The multiverse hypothesis means that in the course of my reading this paper, the universe has subdivided innumerable times as all possibilities become real and create new possibilities that are themselves actualized. It is not easy to see how such a scenario can be incorporated into any version of orthodox Christianity.

In short, if Christianity is true, the multiverse hypothesis must be false because, as we have just seen, it contradicts the scriptural edict that Christ died once for all. But we should also note that God's creativity makes an appeal to randomness unnecessary. We believe that God created the universe from nothing,[24] sustains that universe as it develops, and declares the end from the beginning (Isa. 46:10).[25] Since God creates by speaking, "declares" here involves a creative dimension that goes beyond mere foreknowledge. In fact Christ himself, who creates and upholds all things,[26] is said to be the beginning and the end (Rev. 22:13). Thus, it is truer to orthodox theology – and truer to our own experience – to suppose that the creator God instant by instant molds the quantum clay into the universe he wants. Indeed God would have to do this since he would himself be the ultimate agent of decoherence and, as unconditioned creator, would decided which superposition should exist and which should not.

It is important to note that quantum reality is not at issue here. Indeed, the quantum nature of reality opens the way for a better understanding of God's creative involvement in the universe.[27] What is at

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multiverse and why at a minimum at least a trillion (I assume Deutsch means a British trillion) universes run parallel to our own.

[24] Although the concept of creation from nothing has an ancient pedigree in Jewish and Christian thought, the phrase occurs nowhere in Scripture. The earliest explicit statement of this doctrine occurs in II Maccabees 7:28 and its exponent is a woman. Though often assumed by theologians as a necessary adjunct to Christ's ultimate victory over evil, it did not become required Christian belief until the Fourth Lateran Council of 1215.

[25] To grasp something of what is meant by Christ knowing the end from the beginning, it is helpful to remember that we live at the end of time. All history culminates in now. Christ underlines this for us by reminding us that his return will be a surprise, interrupting us as we go about our daily tasks (Mat. 24:37 - 41; Luke 17:26 - 36). Thus, from the moment of creation, Christ saw each succeeding moment. He foresaw it not only through his omniscience but also through his creative and sustaining power. We are not co-creators with Christ, we are creations of Christ.

[26] John 1:3; I Cor. 8:6; Eph. 3:9; Col. 1:17; Rev. 3:14

[27] William Dembski touches on this in *The Design Revolution* (InterVarsity Press, Downers Grove, Illinois, 2004). See Part III "Information," Chapter 20 "Nature's Receptivity to Information," pp. 153 - 154, and

issue is the way that reality is interpreted. Both randomness and the multiverse model are interpretations contrary to Christian truth. But what is the Christian alternative?

Describing the second through the fourth century debate between Christians and Hellenists over the nature of reality, Charles Cochrane argues that, whether Hellenists adopted the heroic position of Homer or the naturalistic position of Heraclitus and Herodotus, "the error of Classicism may be summarily described as a failure to identify the true source of power and ... its true character and conditions."[28] The logos is not an impersonal law of nature as Heraclitus believed.[29] Neither is it poetic[30] or, as Herodotus imagined, philosophical.[31] It is personality. Indeed, it is the specific personality revealed by Jesus Christ. That discovery, Cochrane argues, marks the discovery of the true nature of history.[32] He says, "History in terms of the embodied *logos* means history in terms of personality."[33] By substituting "the logos of Christ for that of Classicism,"[34] they introduced a new way to interpret human life and human history,[35] a way that, because it was based on the Divine, was neither anthropocentric or anthropomorphic.[36]

Of course natural science, that is to say the orderly investigation of the cosmos, was originally called natural history. It purposed to describe a cosmos that was imagined to be the work of God and hence the work of intelligence, a cosmos that, as an expression of intelligence, embodied an order that could be grasped by intelligence, especially if that intelligence had been made in the image of the creator intelligence himself. Over time this idea of the cosmos as an expression of divine intellect was superseded by the idea of the cosmos as a contingent expression of the divine will, and its order the expression of an imposed divine law[37] that could to some degree be comprehended by human reason.[38] However, the ascendancy of will over reason and spirit meant that the ontological unity of creation was no longer a given.[39] Uncertainty about the ontological unity of creation resulted in the ascendancy of empiricism since, as Klaaren observes, "there was no longer any long or short cut to knowledge of the world through divine Mind or Spirit."[40] Here then out of voluntarist theology was modern science born.

But notice that a distinction between the knower and the knowable is one of the root assumptions here. We cannot know as God knows, therefore the cosmos becomes knowable only in human ways. But the problem is precisely that science attempts to create a privileged "God's-eye" view, that is, it attempts to model the universe as the universe would appear to us if we could assume the divine perspective and see it as God might see it if God is as Isaiah conceives God to be. However, ironically, the universe becomes fantastical precisely because in attempting to assume the divine perspective, we reject Isaiah's theology. Quantum physics in effect assumes a theological position and therefore presents us with a theological problem. But because the problem presented to us by quantum physics is theological, its solution is theological. By embracing the biblical doctrine that Christ died once for all, we can resolve the quantum

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Thomas F. Torrance in *The Ground and Grammar of Theology* (Christian Journals Limited, Belfast, 1980) discusses it at length.

28 Cochrane, Charles Norris, *Christianity and Classic Culture* (Oxford University Press, 1980), Part III "Regeneration," Chapter 12 "Divine Necessity and Human History," p. 500

29 Ibid., p. 459

30 Ibid., Chapter 11 "Nostra Philosophia: the Discovery of Personality," p. 419

31 Ibid., Chapter 12, p. 457

32 Ibid., pp. 456, 474

33 Ibid., p. 480

34 Ibid., p. 474

35 Ibid., p. 487

36 Ibid., p. 480

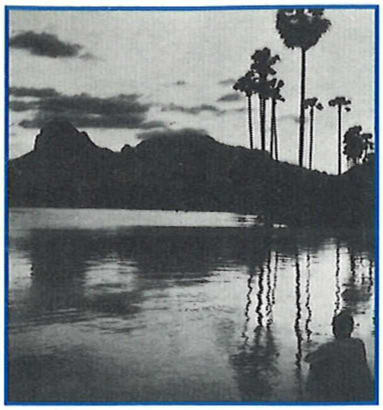
37 Klaaren, Eugene M., *Religious Origins of Modern Science* (William B. Eerdmans Publishing Company, Grand Rapids, Michigan, 1966), Chapter 2 "The Development of a Voluntarist Theology of Creation," subsection "Beginnings of Voluntarist Thought in Late Medieval Criticism," p. 33

38 Ibid., subsection "Voluntarist and Aesthetic Orientations to Creation in Calvin's Theology," p. 46

39 Ibid., Chapter 4 "Theology and Modernity," subsection A Quite Reformation," p. 87, and subsection "Modern Differentiation of the Self: Literary, Historical, and Religious," p. 105

40 Ibid., Chapter 7 "Conclusion," p. 190

dilemma by denying the validity of the multiverse model and the randomness interpretation on which it is predicated. Precisely because the universe is conceived by God, who is the ultimate agent of decoherence, and purposeful (that is it fulfills God's purposes), it is not random.



DOHNAVUR FELLOWSHIP

Truth Is the Agreement of the Cognition with Its Object

Ben M. Carter

Therefore if any man be in Christ, he is a new creature: old things are passed away; behold, all things are become new.

II Corinthians 5:17 (KJV)

The title of my paper comes from Immanuel Kant's *Critique of Pure Reason.*[1] Kant's concept of truth as possessing both a subjective and an objective dimension and requiring precise correspondence between the two is basic to his epistemology, and he refers to it in various ways in several passages.[2] In Kant's view the objective can be known only when apprehended subjectively. To be apprehended subjectively means that an image of the object is synthesized by the faculty of imagination via the manifold of general intuitions.[3]

Regarding phenomena, Kant writes, "We have always to deal with our representations only; how things may be by themselves ... is completely beyond the sphere of our knowledge."[4] Therefore it is possible to misapprehend or misconceive an object, something that would seem much less likely if we perceived objects directly. However, because we do not perceive objects directly, because they are mediated through our senses and apprehended though our mental categories, our understanding of truth, even mathematical truth in Kant's view, is profoundly human.[5] Thus the idea that truth is the agreement between a cognition and its object is key to understanding Kant's thought. For him truth is not perceived, it is agreement, and because it is agreement, it is constructed.

The question immediately rises: is human truth construction an active or passive process? To the best of my knowledge, Kant does not directly address this question. Clearly he would have understood the sensuous aspect of truth construction to involve activity, but whether or not pure intuitions were active or passive remains for Kant an open question so far as I can tell, though I suspect he understood them as behaving passively,[6] analogous perhaps to the way a prism passively "deconstructs" light or a lens passively

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[1] Kant, Immanuel, *Critique of Pure Reason* (Doubleday & Company, Inc., Garden City, New York, 1966, translated by F. Max Muller), The Elements of Transcendentalism, Second Part, III Of the Division of General Logic into Analytic and Dialectic, p. 48

[2] Ibid., First Division Transcendental Analytic, Book I Analytic of Concepts, Chapter II Of the Deduction of the Pure Concepts of the Understanding, Section 1 Of the Principles of a Transcendental Deduction in General, subsection 17 The Principle of the Synthetical Unity of Apperception is the Highest Principle of all Employment of the Understanding, p. 80; Book II Analytic of Principles, The Transcendental Doctrine of the Faculty of Judgment or Analytic of Principles, Chapter I Of the Schematism of the Pure Concepts of the Understanding, pp. 121, 124; Chapter II System of all Principles of the Pure Understanding, Section 3 Systematical Representations of all Synthetical Principles of the Pure Understanding, subsection 3 Analogies of Experience, Third Analogy, Principle of Community, p. 155.

[3] Ibid., Section 1 Of the Principles of a Transcendental Deduction in General, subsection 24 Of the Application of the Categories to Objects of the Senses in General, p. 90

[4] Ibid., Section 3 Systematical Representations of all Synthetical Principles of the Pure Understanding, subsection 3 Analogies of Experience, Third Analogy, Principle of Community, p. 155.

[5] Ibid., Chapter II System of all Principles of Pure Understanding, p. 128; Section 3 Systematical Representation of all Synthetical Principles of the Pure Understanding, p. 133. For more on a Kantian understanding of mathematics, see *Where Mathematics Comes From* by George Lakoff and Rafael E. Nunez (Basic Books, 2000) and my own article "Mathematics and Metaphysics" in the September 2003 issue of *Perspectives on Science and Christian Faith* (Vol. 55, No. 3). Even facts would be constructed since, as recognized entities, they would need to be isolated and recognized. And whatever significance they have or had would also be a construct of the ideational context in which they are observed.

[6] Ibid., I The Elements of Transcendentalism, First Part Transcendental Aesthetic, subsection 1, p. 22. (Here he says that representations in which there is nothing belonging to sensation or pure.); First Division Transcendental Analytic, Book I Analytic of Concepts, Chapter II Of the Deduction of the Pure Concepts of

focuses it. But whatever Kant thought, neurobiology has revealed that human truth construction is based on some very active processes, and it has also shown that the human brain is capable of making a lot from very little.

Neurobiology was shown that a limited range of outside influences activate the sense organs to transmit signals, part chemical and part electrical, to various regions of the brain. These regions are only able to process a fraction of the total information they receive, but they are coordinated so that they integrate what they do process into the unified whole, the "virtual reality," that we experience as the external world. This coordination need not imply physical contact among all the neural systems. Rather our perception of an external world seems to emerge as increasingly higher level systems in the brain edit and splice the various bits lower level systems construct and provide. One of the consequences of this is that we have no assurance that we experience the world as it is. Rather we experience a world of our own making, a world that is an artifact of the brain. Of course our virtual world enables us to interact successfully with the real world, but the process that results in that virtual world gives us no grounds for supposing that, by using our virtual world as a standard, we can model the actual world in any genuinely exhaustive way.

Charles Darwin argued that as bodies were fundamentally related across the evolutionary continuum, so minds too shared similar characteristics. He wrote, "[T]here is no fundamental difference between man and the higher mammals in their mental faculties."[7] To illustrate how this point impacts the reliability of the brain's modeling capacity, consider the brain of a turtle. The turtle brain has proved to be an excellent survival organ. It not only successfully pilots the turtle body through a complex turtle environment, it also successfully reproduces itself by responding appropriately to other turtle brains. But a turtle brain grows in the same way and according to the same physiological principles as our own. Its senses, like our own, stream electronic data via chemical paths to its neural structures which in turn interpret that data, and, by interpreting it, create a virtual turtle world that has enabled the turtle to not only endure but to prosper. The Darwinist would argue that the turtle and human brain are related organs and evolved in response to the same general pressures. What the turtle's brain does for it in its environment, ours does for us in our environment. Thus the virtual worlds created by the respective species of brains are, when viewed pragmatically, equally valid. Indeed, one could argue that the turtle brain has pride of place given its extraordinary success at securing the longevity of the family. Darwin embraces such a conclusion without flinching. In fact, he claims that the brain of an ant is perhaps more marvelous than the brain of a man.[8] Given Darwin's basic assumptions, it is difficult to see how he could believe otherwise.

Of course Darwin and his followers would argue that the human brain does more than simply allow for individual human survival, it also produces culture.[9] And the Darwinist would likewise aver that animals too develop a kind of culture. However, if cultural studies have demonstrated anything at all, they

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the Understanding, Section 1 Of the Principles of a Transcendental Deduction in General, subsection 27 Results of this Deduction of the Concepts of the Understanding, p. 97. In both passages, Kant says these pure concepts exist in us a priori. I would argue that what exists in us a priori and is completely devoid of sensation may well act passively.

[7] Darwin, Charles, *The Descent of Man* (The University of Chicago, The Great Books, William Benton, Publisher, The Encyclopedia Britannica, In., 1952), Chapter III "Comparison of the Mental Powers of Man and the Lower Animals, p. 287. Of course, Darwin will concede that "the difference between the mind of the lowest man and that of the highest animal is immense," but he believes this difference is one of degree rather than of kind, Chapter IV "Comparison of the Mental Powers of Man and the Lower Animals (*Continued*), section *Summary of the last two chapters*, p. 319.

[8] Ibid., Chapter II "On the Manner of Development of Man from Some Lower Form," p. 281

[9] The Darwinist might also argue that the human brain does not really produce culture or, if it does, does so only in concert with memes: self-replicating programs that lodge in a human brain and use its sensory and neural processes to reproduce themselves in other human brains, analogous to the way viruses inflect systems different from themselves. But one's acceptance of meme theory has no bearing on the distorting or interpretive role culture plays in structuring our worldview. And that distorting or interpretive role is the point.

have shown that cultures themselves act as interpretative frameworks, that is, they create one more set of levels between the world *as it is* and our experience of it. Therefore, the brain's culture generating capacity gives us another reason for being suspicious of the reality it creates.

Thus the Lockean conceit that the brain is a blank slate upon which experience writes has been thoroughly debunked by modern science.[10] We have discovered instead that the brain actively constructs a virtual world from experiences mediated biologically and/or culturally, and, if the Darwinist is correct, there is no fundamental difference between how the brains of various species including our own achieve this. Thus questions once confined to the realm of philosophical speculation are now amenable to scientific investigation. In this regard I find it significant that Immanuel Kant is the philosopher neurobiologists most frequently cite (insofar as they cite any philosophers at all) to illustrate the nature of their conclusions.

Understanding that truth about something is a construct does not mean that nothing can be known. After all, one can know that the truth about a thing is a construct! One can also know what one cannot know. One can know how perception traps the knower and distorts the known. One can know one's senses are probably unreliable as vehicles for grasping reality as it is but are adequate to the task of survival. One can know one exists and has thoughts about things and that they are likely faulty, or that past models of the universe that seemed satisfactory no longer do. And one can know why all these things are true. Also one can know, and this is the point, that there is no neutral position. Not even mathematics serves that role.

A brief aside on mathematics in science might be illustrative here. There is no obvious reason why science must rely on mathematics. But it has ever since Newton showed how gravity could be described mathematically. From that point mathematics became the golden standard for symbolizing natural law. But why the universe should act mathematically has always been a puzzle. Back when scientists were theists, it was assumed that, as Galileo claimed, mathematics provided the divine perspective since that was the one area of knowledge where humans could claim parity with God.[11] But most scientists are either no longer theists or have divorced their religious and scientific worlds. The new argument is that mathematics is embodied in the human mind, that it is a metaphor for the way we think. In other words, the universe resembles a mathematical thought because we think about it mathematically. But that means mathematics no longer provides us with a neutral or god-like perspective. Instead it simply reveals the way we conceptualize some processes. In an ultimate sense, the universe may not be mathematical at all, and in fact problems with causality that have emerged in quantum mechanics, or the inability of cosmologists and physicists to integrate quantum mechanics and relativity, suggest that it might not be. Notice by the way, how metaphysical this scientific dilemma is.

Now to continue with the main argument. The neurobiological/Kantian paradigm assumes a radical distinction between the subjective and objective dimensions of reality, but that paradigm is predicated on the conjecture that existence and perception are radically discrete phenomena. I tried to capture this disjunction earlier by distinguishing between the subjective virtual and the objective real. We might resolve that division if we suppose that existence has what we might think of as an extended or

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[10] J. P. Moreland and Scott B. Rae argue in *Body and Soul* (InterVarsity Press, 2000) that some issues are philosophical rather than scientific and because of that, the scientific data can be adduced to support philosophically distinct positions (see Chapter 6 "Substance Dualism & the Body," p. 219). That may be true, but it is less true than it once was. For example, Julian Jaynes argues that the theory of evolution has transformed the mind-body problem into a scientific one (*The Origin of Consciousness* [Boston, Houghton Mifflin Co., 1976], "Introduction: the Problem of Consciousness," p. 3). While I am very skeptical of Prof. Jaynes' overall thesis, he is certainly correct about that. Furthermore science has cast a very revealing light on epistemological issues that have long divided philosophers. Science itself is a philosophy about the way things are, and philosophers ignore it at their peril.

[11] Galileo, Galilei, *Dialogue Concerning Two World Systems* (translated by S. Drake, California University Press, 1953), pp. 103 - 104. Of course Galileo's thesis derives from Augustine's conceptualism which located the Platonic realm of eternal ideas in the eternal mind of God. As creatures made in God's image, we would have a limited access to God's ideas, but insofar as we could grasp them, they could be known as certainly true.

expanded quality. A thing exists in itself to be sure, but its existence might also be expressed in how it is perceived and known. A thing might exist in some way in the truth we construct about it, and the fact that virtual worlds work so well suggests this is indeed the case. Thus we may think of a thing's existence as entailing potentiality not only as regards its future states, but also as regards its more immediate perceived/known state. It is both *sui generis* and conceptually generalizable, that is, it exists as it is in itself and as phenomena. I say phenomena because as phenomena a thing exists as it is known, and as it might be known, to a host of potentially unlimited observers.

Let us begin to develop this point by looking at how our concept of entropy has evolved. *The Harper Encyclopedia of Science* defines entropy as "a thermodynamic property of a substance related to its absolute temperature, pressure and volume. ... Entropy increases whenever a body's store of free or available energy decreases or whenever its internal disorder increases. Conversely, whenever there is a gain in available energy or a decrease in internal disorder, entropy diminishes."[12] Absolute entropy of course cannot be measured. Rather entropy is the way we quantify the energy that becomes unavailable for work as a process unfolds. When the process is irreversible, like the loss of heat by conduction, entropy increases; when the process is reversible, like the freezing or melting of water, entropy decreases. Brian Greene in *The Fabric of the Cosmos* defines entropy as "a concept [for] counting the number of ways, consistent with the laws of physics, in which any given physical situation can be realized. *High entropy means that there are many ways, low entropy means there are few ways*."[13] In other words, not only is entropy a way of grading heat loss, it is also a way of ranking states of order.[14] As Greene says, low entropy indicates a high level of order while high entropy points to a high level of disorder.[15]

The association of entropy with states of order or disorder is significant since order and disorder are expressions of structure. Structure of course can be coded. In computer technology, data that can be coded for processing is called information.[16]

This relationship between entropy and information was first explored by Claude Shannon in a series of articles that appeared in the *Bell System Technical Journal* between July and October 1948.[17] In these articles Shannon argued that information is physical and can be quantified[18] as though it were "just another measure of entropy"[19] since entropy itself is a measure of disorganization.[20] From this perspective, entropy, according to the physicist John Wheeler, can be thought of as "unavailable information."[21] The idea, which equates information and energy,[22] remains controversial among scientists,[23] but is gaining adherents because assuming its truth is a proven path of fruitful research.

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[12] *The Harper Encyclopedia of Science* (James R. Newman, editor, Harper and Row, New York and Evanston, 1967) "Entropy" by Alexander Efron, p. 405
[13] Greene, Brian, *The Fabric of the Cosmos* (Alfred A. Knopf, New York, 2004), Part II "Time and Experience," Chapter 6 "Chance and the Arrow," subsection "Entropy," p. 152. Italics in the original.
[14] Ibid., p. 154
[15] Ibid., asterisk footnote on page 155
[16] Siegfried, Tom, *The Bit and the Pendulum* (John Wiley & Sons, Inc., 2000), Introduction, p. 2
[17] Ibid., Chapter 3 "Information is Physical," subsection "Shannon's Entropy," pp. 64 - 65
[18] Ibid., p. 59; subsection "Shannon's Entropy," p. 66; Chapter 9 "Quantum Reality," subsection "Complete and Consistent," p. 192. The words physical and real are used interchangeably.
[19] Ibid., Chapter 10 "From Black Holes to Supermatter," subsection "Black Holes and Bits," p. 200
[20] Ibid., Chapter 11 "The Magical Mystery Tour," subsection "Magic and Mystery," p. 229
[21] Ibid., Chapter 10 "From Black Holes to Supermatter," subsection "Black Holes and Bits," p. 199
[22] This underlies the claim that information is physical and relates to experiments Shannon did which showed that erasing information held in a computer results in heat loss (Siegfried, *The Bit and the Pendulum*, Chapter 3 "Information Is Physical," subsection "Idealized Efficiency," pp. 70 - 72, subsection "Reversible Computing," p. 73).
[23] Siegfried, *The Bit and the Pendulum*, Introduction, pp. 8 -9; Chapter 3 "Information Is Physical," p. 59; Chapter 10 "From Black Holes to Supermatter," p. 205; Chapter 12 "The Bit and the Pendulum," p. 239, subsection "Law without Law," p. 246

However, a universe that can be described in terms of information processing rather than in terms of energy gain and loss is a universe conceived in a fundamentally literary way. It is a universe that becomes hermeneutical, one in which the observer, as a participant in phenomena, loses neutral status. In other words, it is a universe liable to Gadamer's critique.

Hans-Georg Gadamer was opposed to theories of interpretation based on abstract aesthetics. Instead he argued that particular concrete experience is key to understanding information when that information is expressed or embodied artistically. For him interpretation was not a simple mechanical procedure whereby the meaning of something, a text, a play, a painting, could be isolated and discussed. That is to say, it was not merely reproductive. When we interpret something, according to Gadamer, we do not recreate and analyze the artist's meaning. Rather interpretation is a dynamic and creative event in which the participant – one is not a passive observer in such circumstances, one is a participant – in which the participant, precisely by being a participant, plays a definitive role. After all, one can only begin to understand something by using the concepts one already has, the concepts one brings to the table as it were. But that understanding takes place not by scrutinizing and dominating the art but by submitting to it. In this processes, the participant asks questions and, by asking them, introduces a level of knowledge, a perspective, to the work that its creator did not have. By the same token the creator has a level of knowledge and a perspective that the participant does not have. What they do share is the completed work of art. It exists as it is, embodying the meaning the artist intended of course, but also embodying the unconscious processes and motivations that produced it. It is a cultural artifact, fixed in history, yet, as a work of art, transcending its moment precisely because it is experienced contemporarily by the interpreter/participant. Pondering the work of art, asking questions of it, allows for a blending of the conceptual horizons of the artist and the participant. Hence, it is inaccurate to say that we understand the artist's work. That implies the work has a static meaning which we have fully grasped and thoroughly plumbed. It is more accurate to say that we understand through it. By pointing to itself, the art points beyond itself. Meaning emerges in the blending of these two horizons, the artist's and the participant's. Art does more than speak to us. Rather within that mutual language event, that conversation, created between the art and the participant its meaning emerges.[24]

To illustrate my point, let us say that a cat and its owner are in a room where a piece of sculpture sits. Both cat and owner would perceive the art and could interact with it, but they would perceive it very differently. The sculpture would exist in itself as a unique and specific thing, but it would also exist in the mind of cat and owner, and, perceived very differently, would exist very differently. Yet both kinds of perceived existence would be quite authentic even though the sculptor could not possibly know how a cat would perceive his work.[25] Introduce a dog, a parrot, and a pony and the sculpture would express further potential existential modes, that is, other of its phenomenological possibilities would become actualized. It is common in our Western tradition, distinguishing as we do between knower and known, to differentiate ontology and epistemology. But from a neurobiological/Kantian perspective, such a differentiation is conceptually flawed. It is more accurate to understand epistemology as an expression of ontology.

Hence I argue that though Kant is correct to say that how things may be by themselves is completely beyond the sphere of our knowledge, his implication that how things are in themselves exhausts the extent of their being is faulty because it ignores the phenomenological aspect of existence, that aspect unlocked by the informational ground of the universe. The phenomenological aspect of something is a valid but incomplete expression of its being. My position is a bit like that of the Platonists who proposed that the world is intelligible because the forms that structure it exist in knowing minds as well as in things known and so provide a bridge between the objective and the subjective. But it is different insofar as I take no position as to whether or not there really is a realm of forms that accomplishes this role. In my position it is not form but phenomenology that constitutes the bridge. My position is also similar to that of Aristotle

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insofar as I recognize that being entails possible as well as actual existence, but I differ from Aristotle in proposing that being in its potential aspect has an epistemological dimension.

Of course the assumption up to this point has been that agreement between the cognition and its object is not only achievable but has been achieved. But how might this model look if the mode of existence of an object is in principle unknowable,[26] or agreement between object and cognition is imperfect?

The first case would mean that the conception of what in principle is unknowable cannot exist. In other words, an unknowable mode of existence would be closed to the object. To seek to know such an object in such a mode would be like trying to calculate the ultimate pi.[27]

In the second case, a mode of being would be degraded insofar as it was misconceived. For example, suppose you were looking at a beach ball with a face painted on the side you could not see. The face would in principle be knowable to you so would have potential existence in that mode whether or not you ever saw it. The beach ball is also knowable by you so exists as a conceived mode of being when you become aware of it. But insofar as you are unaware of the face painted on the back, its singular being or actual identity as "beach ball with face painted on one side" has been degraded. Until you see the face, it is just one more beach ball, unique as a particular beach ball but, insofar as you did not know there was a face painted on its unobserved side, generalizable an unremarkable example of others of its manufacture.

Being in this sense might be imagined as a web rather than a chain, a web in which an object becomes more concrete as its potential modes of being are actualized.

Now for a theological application of this idea. If we conceive of truth and being in way I have outlined above, a redemptive role for the Holy Spirit is revealed.[28] Paul in the second chapter of I Corinthians distinguishes between the wisdom of this world and the power/wisdom of God, and tells his readers that apart from action by the Holy Spirit, the purposes of God in the world cannot be known. Of course being and the purpose(s) for which being has been brought into existence are inextricably intertwined.

Paul concludes this chapter by saying that we have been given the mind of Christ so that we may be instructed by Christ. As one aspect of our new existence and the instruction we receive, we begin to perceive the world differently.[29] God, heretofore hidden, begins to reveal himself in the particulars of creation. Augustine in his *City of God* pictures the culmination of this process when he describes how in the new creation we in our resurrected bodies will see God with utter clarity and distinctness as God governs the whole material realm.[30] This vision is one of the great rewards of redemption, and is something that begins now. Presently we see through a glass darkly but then we shall see clearly (I Cor. 13:12). This

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[26] The following examples will illustrate the kind of unknowable states of existence I am thinking of: (a) human knowledge of the universe as extant in the mind of God if God, as Isaiah conceived God to be, existed, (b) a dinosaur's self awareness, (c) human knowledge of the sun as it is understood by a robin, (d) a beaver's knowledge of the relationship between two helium atoms in the upper atmosphere of a massive gaseous planet that revolved around a twin star system in another galaxy four billion light years from our own. (Note that points a and d are closely related.

[27] Of course there might be knowable modes of existence that do not exist. Unicorns, for example, or hobbits. Much fantasy builds on knowable modes of existence and is therefore imaginable.

[28] One might object that Christ and Christ alone is our redeemer. I agree with that, but such an objection ignores the identity of the Holy Spirit. He is the Spirit of Christ (Rom. 8:9; II Cor. 3:17 - 18; Gal. 4:6; Phil. 1:19; I Pt. 1:11).

[29] In Ephesians 2:10 Paul uses the word *poiema*, from which we get our word poem, to describe us. We are, he says, God's workmanship, God's *poiema*, created in Jesus Christ for good works. Such an altered perception would be an example of the good works we perform.

[30] Augustine, *City of God* (translated by Henry Bettenson, edited by David Knowles, Pelican Classics, Penguin, 1981), Book XXII, Chapter 29, pp. 1086 - 1087

vision is a gift and construct of the Spirit of Christ, a panorama of the really real that is appropriate for us, and actualizing it the in this present evil place not only brings God the redeemer to light, it manifests in enlightened mind aspects of genuine created being which would otherwise hidden. In other words, it begins to bring the new creation into being.

Models of reality are based on perception and expressed conceptually. But we know that our perception is conditioned by our location in a flexible spacetime, and we know our ability to conceive is conditioned by what we are as creatures. This means that our models of reality are limited. However, the conditionedness of this limitation is also creative. As participants embedded in the reality we model, we bring into being aspects of that reality that would not otherwise be actualized. This means, as Feuerbach argued, that truth is fundamentally conditioned by what we are as a species,[31] and, it would follow, that all models of reality that rely solely on human perception and thought must remain purely human constructs and therefore, since there are element of reality such models could never describe, all must remain forever incomplete.

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[31] Feuerbach, Ludwig, *The Essence of Christianity* (translated by George Eliot, Harper & Roe, New York, Evanston, London, 1957), Preface, p. xlii, Chapter XVI ""The Distinction Between Christianity and Heathenism," p.158

Truth Is the Agreement of the Cognition with Its Object

Ben M. Carter

> Therefore if any man be in Christ, he is a new creature: old things are passed away; behold, all things are become new.
>
> II Corinthians 5:17 (KJV)

The title of my paper comes from Immanuel Kant's *Critique of Pure Reason.*[1] Kant's concept of truth as possessing both a subjective and an objective dimension and requiring precise correspondence between the two is basic to his epistemology, and he refers to it in various ways in several passages.[2] In Kant's view the objective can be known only when apprehended subjectively. To be apprehended subjectively means that an image of the object is synthesized by the faculty of imagination via the manifold of general intuitions.[3]

Regarding phenomena, Kant writes, "We have always to deal with our representations only; how things may be by themselves ... is completely beyond the sphere of our knowledge."[4] Therefore it is possible to misapprehend or misconceive an object, something that would seem much less likely if we perceived objects directly. However, because we do not perceive objects directly, because they are mediated through our senses and apprehended though our mental categories, our understanding of truth, even mathematical truth in Kant's view, is profoundly human.[5] Thus the idea that truth is the agreement between a cognition and its object is key to understanding Kant's thought. For him truth is not perceived, it is agreement, and because it is agreement, it is constructed.

The question immediately rises: is human truth construction an active or passive process? To the best of my knowledge, Kant does not directly address this question. Clearly he would have understood the sensuous aspect of truth construction to involve activity, but whether or not pure intuitions were active or passive remains for Kant an open question so far as I can tell, though I suspect he understood them as behaving passively,[6] analogous perhaps to the way a prism passively "deconstructs" light or a lens passively

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[1] Kant, Immanuel, *Critique of Pure Reason* (Doubleday & Company, Inc., Garden City, New York, 1966, translated by F. Max Muller), The Elements of Transcendentalism, Second Part, III Of the Division of General Logic into Analytic and Dialectic, p. 48

[2] Ibid., First Division Transcendental Analytic, Book I Analytic of Concepts, Chapter II Of the Deduction of the Pure Concepts of the Understanding, Section 1 Of the Principles of a Transcendental Deduction in General, subsection 17 The Principle of the Synthetical Unity of Apperception is the Highest Principle of all Employment of the Understanding, p. 80; Book II Analytic of Principles, The Transcendental Doctrine of the Faculty of Judgment or Analytic of Principles, Chapter I Of the Schematism of the Pure Concepts of the Understanding, pp. 121, 124; Chapter II System of all Principles of the Pure Understanding, Section 3 Systematical Representations of all Synthetical Principles of the Pure Understanding, subsection 3 Analogies of Experience, Third Analogy, Principle of Community, p. 155.

[3] Ibid., Section 1 Of the Principles of a Transcendental Deduction in General, subsection 24 Of the Application of the Categories to Objects of the Senses in General, p. 90

[4] Ibid., Section 3 Systematical Representations of all Synthetical Principles of the Pure Understanding, subsection 3 Analogies of Experience, Third Analogy, Principle of Community, p. 155.

[5] Ibid., Chapter II System of all Principles of Pure Understanding, p. 128; Section 3 Systematical Representation of all Synthetical Principles of the Pure Understanding, p. 133. For more on a Kantian understanding of mathematics, see *Where Mathematics Comes From* by George Lakoff and Rafael E. Nunez (Basic Books, 2000) and my own article "Mathematics and Metaphysics" in the September 2003 issue of *Perspectives on Science and Christian Faith* (Vol. 55, No. 3). Even facts would be constructed since, as recognized entities, they would need to be isolated and recognized. And whatever significance they have or had would also be a construct of the ideational context in which they are observed.

[6] Ibid., I The Elements of Transcendentalism, First Part Transcendental Aesthetic, subsection 1, p. 22. (Here he says that representations in which there is nothing belonging to sensation or pure.); First Division Transcendental Analytic, Book I Analytic of Concepts, Chapter II Of the Deduction of the Pure Concepts of

focuses it. But whatever Kant thought, neurobiology has revealed that human truth construction is based on some very active processes, and it has also shown that the human brain is capable of making a lot from very little.

Neurobiology was shown that a limited range of outside influences activate the sense organs to transmit signals, part chemical and part electrical, to various regions of the brain. These regions are only able to process a fraction of the total information they receive, but they are coordinated so that they integrate what they do process into the unified whole, the "virtual reality," that we experience as the external world. This coordination need not imply physical contact among all the neural systems. Rather our perception of an external world seems to emerge as increasingly higher level systems in the brain edit and splice the various bits lower level systems construct and provide. One of the consequences of this is that we have no assurance that we experience the world as it is. Rather we experience a world of our own making, a world that is an artifact of the brain. Of course our virtual world enables us to interact successfully with the real world, but the process that results in that virtual world gives us no grounds for supposing that, by using our virtual world as a standard, we can model the actual world in any genuinely exhaustive way.

Charles Darwin argued that as bodies were fundamentally related across the evolutionary continuum, so minds too shared similar characteristics. He wrote, "[T]here is no fundamental difference between man and the higher mammals in their mental faculties."[7] To illustrate how this point impacts the reliability of the brain's modeling capacity, consider the brain of a turtle. The turtle brain has proved to be an excellent survival organ. It not only successfully pilots the turtle body through a complex turtle environment, it also successfully reproduces itself by responding appropriately to other turtle brains. But a turtle brain grows in the same way and according to the same physiological principles as our own. Its senses, like our own, stream electronic data via chemical paths to its neural structures which in turn interpret that data, and, by interpreting it, create a virtual turtle world that has enabled the turtle to not only endure but to prosper. The Darwinist would argue that the turtle and human brain are related organs and evolved in response to the same general pressures. What the turtle's brain does for it in its environment, ours does for us in our environment. Thus the virtual worlds created by the respective species of brains are, when viewed pragmatically, equally valid. Indeed, one could argue that the turtle brain has pride of place given its extraordinary success at securing the longevity of the family. Darwin embraces such a conclusion without flinching. In fact, he claims that the brain of an ant is perhaps more marvelous than the brain of a man.[8] Given Darwin's basic assumptions, it is difficult to see how he could believe otherwise.

Of course Darwin and his followers would argue that the human brain does more than simply allow for individual human survival, it also produces culture.[9] And the Darwinist would likewise aver that animals too develop a kind of culture. However, if cultural studies have demonstrated anything at all, they

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the Understanding, Section 1 Of the Principles of a Transcendental Deduction in General, subsection 27 Results of this Deduction of the Concepts of the Understanding, p. 97. In both passages, Kant says these pure concepts exist in us a priori. I would argue that what exists in us a priori and is completely devoid of sensation may well act passively.

[7] Darwin, Charles, *The Descent of Man* (The University of Chicago, The Great Books, William Benton, Publisher, The Encyclopedia Britannica, In., 1952), Chapter III "Comparison of the Mental Powers of Man and the Lower Animals, p. 287. Of course, Darwin will concede that "the difference between the mind of the lowest man and that of the highest animal is immense," but he believes this difference is one of degree rather than of kind, Chapter IV "Comparison of the Mental Powers of Man and the Lower Animals (*Continued*), section *Summary of the last two chapters*, p. 319.

[8] Ibid., Chapter II "On the Manner of Development of Man from Some Lower Form," p. 281

[9] The Darwinist might also argue that the human brain does not really produce culture or, if it does, does so only in concert with memes: self-replicating programs that lodge in a human brain and use its sensory and neural processes to reproduce themselves in other human brains, analogous to the way viruses inflect systems different from themselves. But one's acceptance of meme theory has no bearing on the distorting or interpretive role culture plays in structuring our worldview. And that distorting or interpretive role is the point.

have shown that cultures themselves act as interpretative frameworks, that is, they create one more set of levels between the world *as it is* and our experience of it. Therefore, the brain's culture generating capacity gives us another reason for being suspicious of the reality it creates.

Thus the Lockean conceit that the brain is a blank slate upon which experience writes has been thoroughly debunked by modern science.[10] We have discovered instead that the brain actively constructs a virtual world from experiences mediated biologically and/or culturally, and, if the Darwinist is correct, there is no fundamental difference between how the brains of various species including our own achieve this. Thus questions once confined to the realm of philosophical speculation are now amenable to scientific investigation. In this regard I find it significant that Immanuel Kant is the philosopher neurobiologists most frequently cite (insofar as they cite any philosophers at all) to illustrate the nature of their conclusions.

Understanding that truth about something is a construct does not mean that nothing can be known. After all, one can know that the truth about a thing is a construct! One can also know what one cannot know. One can know how perception traps the knower and distorts the known. One can know one's senses are probably unreliable as vehicles for grasping reality as it is but are adequate to the task of survival. One can know one exists and has thoughts about things and that they are likely faulty, or that past models of the universe that seemed satisfactory no longer do. And one can know why all these things are true. Also one can know, and this is the point, that there is no neutral position. Not even mathematics serves that role.

A brief aside on mathematics in science might be illustrative here. There is no obvious reason why science must rely on mathematics. But it has ever since Newton showed how gravity could be described mathematically. From that point mathematics became the golden standard for symbolizing natural law. But why the universe should act mathematically has always been a puzzle. Back when scientists were theists, it was assumed that, as Galileo claimed, mathematics provided the divine perspective since that was the one area of knowledge where humans could claim parity with God.[11] But most scientists are either no longer theists or have divorced their religious and scientific worlds. The new argument is that mathematics is embodied in the human mind, that it is a metaphor for the way we think. In other words, the universe resembles a mathematical thought because we think about it mathematically. But that means mathematics no longer provides us with a neutral or god-like perspective. Instead it simply reveals the way we conceptualize some processes. In an ultimate sense, the universe may not be mathematical at all, and in fact problems with causality that have emerged in quantum mechanics, or the inability of cosmologists and physicists to integrate quantum mechanics and relativity, suggest that it might not be. Notice by the way, how metaphysical this scientific dilemma is.

Now to continue with the main argument. The neurobiological/Kantian paradigm assumes a radical distinction between the subjective and objective dimensions of reality, but that paradigm is predicated on the conjecture that existence and perception are radically discrete phenomena. I tried to capture this disjunction earlier by distinguishing between the subjective virtual and the objective real. We might resolve that division if we suppose that existence has what we might think of as an extended or

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[10] J. P. Moreland and Scott B. Rae argue in *Body and Soul* (InterVarsity Press, 2000) that some issues are philosophical rather than scientific and because of that, the scientific data can be adduced to support philosophically distinct positions (see Chapter 6 "Substance Dualism & the Body," p. 219). That may be true, but it is less true than it once was. For example, Julian Jaynes argues that the theory of evolution has transformed the mind-body problem into a scientific one (*The Origin of Consciousness* [Boston, Houghton Mifflin Co., 1976], "Introduction: the Problem of Consciousness," p. 3). While I am very skeptical of Prof. Jaynes' overall thesis, he is certainly correct about that. Furthermore science has cast a very revealing light on epistemological issues that have long divided philosophers. Science itself is a philosophy about the way things are, and philosophers ignore it at their peril.

[11] Galileo, Galilei, *Dialogue Concerning Two World Systems* (translated by S. Drake, California University Press, 1953), pp. 103 - 104. Of course Galileo's thesis derives from Augustine's conceptualism which located the Platonic realm of eternal ideas in the eternal mind of God. As creatures made in God's image, we would have a limited access to God's ideas, but insofar as we could grasp them, they could be known as certainly true.

expanded quality. A thing exists in itself to be sure, but its existence might also be expressed in how it is perceived and known. A thing might exist in some way in the truth we construct about it, and the fact that virtual worlds work so well suggests this is indeed the case. Thus we may think of a thing's existence as entailing potentiality not only as regards its future states, but also as regards its more immediate perceived/known state. It is both *sui generis* and conceptually generalizable, that is, it exists as it is in itself and as phenomena. I say phenomena because as phenomena a thing exists as it is known, and as it might be known, to a host of potentially unlimited observers.

Let us begin to develop this point by looking at how our concept of entropy has evolved. *The Harper Encyclopedia of Science* defines entropy as "a thermodynamic property of a substance related to its absolute temperature, pressure and volume. ... Entropy increases whenever a body's store of free or available energy decreases or whenever its internal disorder increases. Conversely, whenever there is a gain in available energy or a decrease in internal disorder, entropy diminishes."[12] Absolute entropy of course cannot be measured. Rather entropy is the way we quantify the energy that becomes unavailable for work as a process unfolds. When the process is irreversible, like the loss of heat by conduction, entropy increases; when the process is reversible, like the freezing or melting of water, entropy decreases. Brian Greene in *The Fabric of the Cosmos* defines entropy as "a concept [for] counting the number of ways, consistent with the laws of physics, in which any given physical situation can be realized. *High entropy means that there are many ways, low entropy means there are few ways.*"[13] In other words, not only is entropy a way of grading heat loss, it is also a way of ranking states of order.[14] As Greene says, low entropy indicates a high level of order while high entropy points to a high level of disorder.[15]

The association of entropy with states of order or disorder is significant since order and disorder are expressions of structure. Structure of course can be coded. In computer technology, data that can be coded for processing is called information.[16]

This relationship between entropy and information was first explored by Claude Shannon in a series of articles that appeared in the *Bell System Technical Journal* between July and October 1948.[17] In these articles Shannon argued that information is physical and can be quantified[18] as though it were "just another measure of entropy"[19] since entropy itself is a measure of disorganization.[20] From this perspective, entropy, according to the physicist John Wheeler, can be thought of as "unavailable information."[21] The idea, which equates information and energy,[22] remains controversial among scientists,[23] but is gaining adherents because assuming its truth is a proven path of fruitful research.

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[12] *The Harper Encyclopedia of Science* (James R. Newman, editor, Harper and Row, New York and Evanston, 1967) "Entropy" by Alexander Efron, p. 405

[13] Greene, Brian, *The Fabric of the Cosmos* (Alfred A. Knopf, New York, 2004), Part II "Time and Experience," Chapter 6 "Chance and the Arrow," subsection "Entropy," p. 152. Italics in the original.

[14] Ibid., p. 154

[15] Ibid., asterisk footnote on page 155

[16] Siegfried, Tom, *The Bit and the Pendulum* (John Wiley & Sons, Inc., 2000), Introduction, p. 2

[17] Ibid., Chapter 3 "Information is Physical," subsection "Shannon's Entropy," pp. 64 - 65

[18] Ibid., p. 59; subsection "Shannon's Entropy," p. 66; Chapter 9 "Quantum Reality," subsection "Complete and Consistent," p. 192. The words physical and real are used interchangeably.

[19] Ibid., Chapter 10 "From Black Holes to Supermatter," subsection "Black Holes and Bits," p. 200

[20] Ibid., Chapter 11 "The Magical Mystery Tour," subsection "Magic and Mystery," p. 229

[21] Ibid., Chapter 10 "From Black Holes to Supermatter," subsection "Black Holes and Bits," p. 199

[22] This underlies the claim that information is physical and relates to experiments Shannon did which showed that erasing information held in a computer results in heat loss (Siegfried, *The Bit and the Pendulum*, Chapter 3 "Information Is Physical," subsection "Idealized Efficiency," pp. 70 - 72, subsection "Reversible Computing," p. 73).

[23] Siegfried, *The Bit and the Pendulum*, Introduction, pp. 8 -9; Chapter 3 "Information Is Physical," p. 59; Chapter 10 "From Black Holes to Supermatter," p. 205; Chapter 12 "The Bit and the Pendulum," p. 239, subsection "Law without Law," p. 246

However, a universe that can be described in terms of information processing rather than in terms of energy gain and loss is a universe conceived in a fundamentally literary way. It is a universe that becomes hermeneutical, one in which the observer, as a participant in phenomena, loses neutral status. In other words, it is a universe liable to Gadamer's critique.

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Being in this sense might be imagined as a web rather than a chain, a web in which an object becomes more concrete as its potential modes of being are actualized.

Now for a theological application of this idea. If we conceive of truth and being in way I have outlined above, a redemptive role for the Holy Spirit is revealed.[28] Paul in the second chapter of I Corinthians distinguishes between the wisdom of this world and the power/wisdom of God, and tells his readers that apart from action by the Holy Spirit, the purposes of God in the world cannot be known. Of course being and the purpose(s) for which being has been brought into existence are inextricably intertwined.

Paul concludes this chapter by saying that we have been given the mind of Christ so that we may be instructed by Christ. As one aspect of our new existence and the instruction we receive, we begin to perceive the world differently.[29] God, heretofore hidden, begins to reveal himself in the particulars of creation. Augustine in his *City of God* pictures the culmination of this process when he describes how in the new creation we in our resurrected bodies will see God with utter clarity and distinctness as God governs the whole material realm.[30] This vision is one of the great rewards of redemption, and is something that begins now. Presently we see through a glass darkly but then we shall see clearly (I Cor. 13:12). This

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[26] The following examples will illustrate the kind of unknowable states of existence I am thinking of: (a) human knowledge of the universe as extant in the mind of God if God, as Isaiah conceived God to be, existed, (b) a dinosaur's self awareness, (c) human knowledge of the sun as it is understood by a robin, (d) a beaver's knowledge of the relationship between two helium atoms in the upper atmosphere of a massive gaseous planet that revolved around a twin star system in another galaxy four billion light years from our own. (Note that points a and d are closely related.

[27] Of course there might be knowable modes of existence that do not exist. Unicorns, for example, or hobbits. Much fantasy builds on knowable modes of existence and is therefore imaginable.

[28] One might object that Christ and Christ alone is our redeemer. I agree with that, but such an objection ignores the identity of the Holy Spirit. He is the Spirit of Christ (Rom. 8:9; II Cor. 3:17 - 18; Gal. 4:6; Phil. 1:19; I Pt. 1:11).

[29] In Ephesians 2:10 Paul uses the word *poiema*, from which we get our word poem, to describe us. We are, he says, God's workmanship, God's *poiema*, created in Jesus Christ for good works. Such an altered perception would be an example of the good works we perform.

[30] Augustine, *City of God* (translated by Henry Bettenson, edited by David Knowles, Pelican Classics, Penguin, 1981), Book XXII, Chapter 29, pp. 1086 - 1087

vision is a gift and construct of the Spirit of Christ, a panorama of the really real that is appropriate for us, and actualizing it the in this present evil place not only brings God the redeemer to light, it manifests in enlightened mind aspects of genuine created being which would otherwise hidden. In other words, it begins to bring the new creation into being.

Models of reality are based on perception and expressed conceptually. But we know that our perception is conditioned by our location in a flexible spacetime, and we know our ability to conceive is conditioned by what we are as creatures. This means that our models of reality are limited. However, the conditionedness of this limitation is also creative. As participants embedded in the reality we model, we bring into being aspects of that reality that would not otherwise be actualized. This means, as Feuerbach argued, that truth is fundamentally conditioned by what we are as a species,[31] and, it would follow, that all models of reality that rely solely on human perception and thought must remain purely human constructs and therefore, since there are element of reality such models could never describe, all must remain forever incomplete.

[31] Feuerbach, Ludwig, *The Essence of Christianity* (translated by George Eliot, Harper & Roe, New York, Evanston, London, 1957), Preface, p. xlii, Chapter XVI ""The Distinction Between Christianity and Heathenism," p.158

Is A New Christendom Emerging in the Non-Western World?
Philip Jenkins' and Lamin Sanneh's Contrasting Visions

Ben M. Carter

Philip Jenkins has recently argued that, within the context of globalization, a new Christendom, decidedly "conservative" in nature, is rising in the Non-Western World. Lamin Sanneh disagrees, saying that the "Southern" churches are much too varied to be classified within a now defunct framework borrowed from Europe's past. I propose to discuss and evaluate these contrasting claims, and explain why I think Sanneh is probably more nearly right than is Jenkins.

Introduction

In 2002 Philip Jenkins, Distinguished Professor of History and Religious Studies at Penn State University, published through Oxford University Press *The Next Christendom* subtitled *The Coming of Global Christianity*. The book addressed the shift in Christian population from the so-called North to the so-called South,[1] discussed the generally conservative and charismatic nature of "Southern" Christianity, posited that the "South" would become the next Christendom, and predicted that the twenty-first century would see a significant increase in religiously inspired violence as "Southern" fundamentalisms across the religious spectrum clashed. Jenkins' vision was both inspiring and frightening.

For many of us, the shift of the Christian center away from Europe, though little discussed in secular educational institutions and almost completely ignored by the media,[2] was very old news,[3] as was the strength of conservative and charismatic theology in "Southern" churches. But the idea that a new Christendom is forming and that it will be a catalyst for religious violence has been controversial, even startling, and responses have not been wanting. One of the best is Lamin Sanneh's study *Whose Religion is Christianity?*, subtitled *The Gospel beyond the West*, published by William B. Eerdmans in 2003. A native of Gambia and the D. Willis Professor of Mission and World Christianity as well as professor of history at Yale University, Sanneh is well positioned to critique Jenkins' thesis. His primary objection revolves around Jenkins' contention that a new Christendom is emerging. I am sympathetic to Sanneh's position. In this paper I will explain why I think it likely that Sanneh is more nearly correct.

Why Jenkins believes the shift away from Europe will result in the birth of a new Christendom

Jenkins is quite aware that terms like South and Third World "are enormous generalizations" that ignore all kinds of distinctions. Nevertheless, he believes that the new churches in the Third World, by which be means African independence congregations and Pentecostal movements in Asia and Latin America, share a

[1] By North Jenkins means Europe and North America, by South he means Asia, Africa, and South America (Chap. 1 "The Christian Revolution," pp. 1-2). Since Asian is in the Northern hemisphere, this compartmentalization, in Dr. Jenkins' mind, reflects not geography but economic conditions (Chap. 7 "God and the World," section "Under Western Eyes," p. 160). Given this, one must wonder if Japan is included among the "Northern" elite or if it should be grouped among the "elites of the South" where the Ecumenical Association of Third World Theologians places it (see *Spirituality of the Third World* [Orbis Books, Maryknoll, New York, 1994], Lawrence Surendra's essay, pp. 24, 26, 33; George E. Tinker's essay, p. 131). And what does one do with Australia/New Zealand, the Caribbean, or Oceania? My point is that such a division is as ideologically biased as any Occidental/Oriental division decried by Edward Said, and, as such, is as misleading and unserviceable. There are simply huge differences between China and Iran, South Africa and Mexico, or Nigeria and Aruba which a North/South bifurcation misses completely.

[2] "Modern Western media," Jenkins notes, "generally do an awful job of reporting on religious realities, even within their own societies" (*The Next Christendom*, Chap. 7, section "Under Western Eyes," p. 162), a point I am confident we can all affirm!

[3] Nor is it unexpected to those familiar with the history of the faith. As Jenkins points out, "the 'Christian heartland' has repeatedly shifted" (Chap. 9 "Coming Home," p. 192).

context that make them intelligible to the outsider.[4] That context, of course, is poverty. The North-South economic divide, he argues, will be the key issue of the twenty-first century. It will generate enormous conflict and that conflict will be expressed in religious terms.[5]

The unity created by poverty will be complicated by the exotic belief systems of the emerging churches. While he readily acknowledges that, despite diverging from orthodoxy, most "Southern types of Christianity ... [remain] within very recognizable Christian traditions,"[6] Jenkins believes that the problem is not just that Southern Christians are more conservative than their Northern counterparts,[7] and distinctly Pentecostal,[8] but that the marked similarities between the traditional religions and the missionary gospel were so pronounced that, rather than the kind of healthy inculturation[9] missionaries worked and hoped for, Christianity's translatability too often resulted in a syncretistic belief system in which older beliefs were simply retained and adapted to the new message.[10] He also believes that the missionary churches eventually acceded to this.[11] In this way a myriad of pre-Christian or non-Christian traditions were baptized and welcomed into the Christian church.

This should lead us to ask exactly what Jenkins means by conservative. While for most of us, conservative is closely associated with orthodoxy, for Jenkins it means something different, He writes:

> The types of Christianity that have thrived in the global South have been very different from what many Europeans and North Americans consider mainstream. These models have been far more enthusiastic, much more centrally concerned with the immediate workings of the supernatural ... In fact, they have differed so widely from the cooler Northern norms as to arouse suspicions that [these Southern Christians] are essentially reviving the pagan practices of traditional society.[12]

In other words, they are conservative primarily in the sense that they are vehicles for conserving older traditions, not in the sense that they guarantee fidelity to orthodox Christian teaching as it was conceived by the "North."

Thus, as Christianity is increasingly defined by the "South," it is possible, even likely, that the faith will come to be seen as a dangerous "jungle religion" and, as such, as something the "secular, rational, and tolerant" "North" will oppose.[13]

Jenkins' understands "Southern" unity as rooted in poverty and syncretism. His basis for claiming that a new Christendom is being forged lies in the emergence of this new kind of Christianity coupled with the idea that an economic disparity that is to the "South's" disadvantage will endure for generations. Both of these premises are problematic.

Jenkins' first thesis is problematic because (ironically) it fails to appreciate the flexibility and resiliency of Christian expression. Because Christianity is an incarnational faith, is it is able to be translated into a wide variety of cultural forms yet remain true to its basic message. It reinterprets indigenous cultures, that is it

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[4] Jenkins, Philip, *The Next Christendom*, Chapter 4 "Standing Alone," section "Explaining Success," p. 72
[5] Ibid., Chapter 7, section "Under Western Eyes," p. 160
[6] Ibid., Chapter 6 "Coming to Terms," p. 108
[7] Ibid., Chapter 1 "The Christian Revolution," section "Back to the Future," pp. 7, 8
[8] Ibid., Chapter 4, section "The Catholic Response," p. 67; Chapter 6, p. 107
[9] Ibid., Chapter 6, section "Whose Culture," here Jenkins defines inculturation as "interpreting the Christian proclamation in a form appropriate for particular cultures, usually with the implication of non-western cultures," p. 108
[10] Ibid., Chapter 6, section "Beyond Christianity," pp. 120, 122
[11] Ibid., p. 124
[12] Ibid., Chapter 6, p. 107
[13] Ibid., Chapter 7, section "Under Western Eyes," p. 162

borrows and "baptizes" elements from them, but it never fully becomes one with them. And unlike the traditional religions it supplants, Christianity is also a missionary faith with a global vision. Hence, it is quite likely that provincial idiosyncrasies that appear as the faith is translated will disappear as adherents reach out for converts or communion beyond their localities. On the other hand, if the faiths remain idiosyncratic, they are likely to be overwhelmed by history and either disappear or endure as curiosities.[14] As Kevin J. Vanhoozer puts it, "Catholicity is the antidote to the tribalism and parochialism that infects Christian thinking that never leaves the ghetto."[15]

Jenkins' second thesis is problematic because it fails to appreciate the dynamism of the current economic environment. This issue strikes at the heart of the North/South division itself, and any unity that division might be expected to encourage among the haves and have nots. Since, as we have suggested, the South is by definition any economically underprivileged population, the continuation of a "South" somewhere is all but guaranteed. Even our Lord said we would always have the poor with us (Matthew 26:11). But it does not follow that poverty will remain in the locales where it exists today. For example, over the last several decades, Asia has created one of the most dynamic economies in the world and is generating wealth that, however unequally distributed, benefits a growing percentage of its population. While we cannot be certain how such growth will impact the developing world over the next twenty or thirty years, it seems problematic to claim that Asia will remain mired in poverty. It is even problematic to claim it is mired in poverty today! And if the economic conditions of Asians are improving greatly, there is no reason to assume that the economic conditions of Africans and Latin Americans will not also improve. Hence economic development in the "South," however uneven it is, will undermine the unity of poverty Jenkins argument requires.

Jenkins' appeal to poverty as the unifying factor of the new Christendom suggests that he is not really focusing on a geopolitical reality, and Todd M. Johnson and Sandra S. Kim agree. Though coming at the question from a different perspective, they point out that what Jenkins is not describing "a geopolitical reality but a religious and cultural one. Consequently 'Christendom' or 'next Christendom' may not be the best term to use in describing the reality of Southern Christianity or of Christianity as a worldwide phenomenon."[16] Johnson and Kim are correct to point out that Jenkins is not talking about a geopolitical unity so much as he is talking about a cultural/religious one, but they seem to miss Jenkins' point that the cultural/religious reality he describes is rooted in economic disparity.[17]

However, we might also wonder if such disparity, even should it continue, will be sufficient to enable the variant types of Christianity to unify around the issue of their relative economic poverty. The very fact that Christianity is such a translatable faith suggests it will not, and that is Lamin Sanneh's point.

What is Christendom?

However before reprising Sanneh's argument, it is important to describe what is meant by Christendom and sketch briefly how Christendom came to be. Christendom means the kingdom of Christ. As such can refer either to all Christians or to the Christian world. In this second meaning, it is usually taken to designate a culture rooted in Europe and later generalized as the Christian West. Sannah defines it as "the medieval

[14] The movement of Seventh-day Adventism into the evangelical fold at the end of the 1980s and the beginning of the 1990s might serve as a paradigmatic example of what we could expect among "Southern" churches. They too, in dialogue with the larger Christian community, might shed or mute their more radical distinctives.

[15] Vanhoozer, Kevin J., "Lost in Interpretation? Truth, Scripture, and Hermeneutics," *Journal of the Evangelical Theological Society*, Volume 48, No. 1, March 2005, Section IV "Truth and Interpretation: a Proposal," subsection 1"Gospel and truth: beyond 'cheap inerrancy,'" p. 101

[16] Johnson, Todd M. and Kim, Sandra S., "Describing the Worldwide Christian Phenomenon," *International Bulletin of Missionary Research*, Vol. 29, No. 2, April 2005, p. 81 last full paragraph in the left hand column

[17] Of course Johnson and Kim are quite aware of economic disparity, they simply fail to connect it to Jenkins' thesis, at least in the article I quoted.

imperial phase of Christianity when the church became a domain of the state."[18] Thus it has a specifically European, Byzantine, and Tsarist identity. This culture developed from Constantine's Edict of Milan in January 313.[19] It was, in the words of George Weigel, "[t]he result of the fusion of Jerusalem, Athens and Rome."[20] Alan Kreider calls this fusion "the Christendom shift,"[21] and says, "Christendom sought to subject all areas of human experience to the lordship of Christ."[22] Constantine of course was quite aware that his embrace of Christianity would have profound social consequences,[23] but he recognized that the society over which he ruled was sick and needed the kind of remedy only Christianity could provide. Whatever his personal convictions about the truth of Christianity, and I do not question the sincerity of his confession, Constantine, when embracing the faith, had two related policy goals: to create a society that was safe for Christians, and to make Christianity safe for society.[24] As K. S. Latourette points out,

> A state cult is so bound to the government and under such constraint to support the secular authorities and their programmes that it finds difficulty in criticizing or judging the state. An official cult is supposed to give the powerful undergirding of religion to the existing regime. That had been a function of the pre-Christian official cults. In supplanting them, Christianity was expected to fill their role, only more effectively. This proved a serious handicap ...[25]

The Muslim conquest of the Byzantine empire at the end of the fifteenth century was a serious blow to Christendom. The secularization of Europe and Tsarist Russia in the twentieth century, occasioned by an

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[18] Sanneh, Lamin, *Whose Religion is Christianity?*, Chapter 1 "The Wind Blows Where It Wills, Christianity as a World Religion," Part II, p. 23

[19] The Edict of Milan is the traditional marker for the termination of Roman persecution of Christians, but while the edict secured not only freedom of worship for Christians but also compensation for past wrongs and the return of Christians' confiscated property, it is more accurate to say that the era of Roman persecution of Christians actually ended in 311 with Galerius' edict of toleration. Quoting H. L. Drake's *Constantine and the Bishops: The Politics of Intolerance* (John Hopkins University Press, 2001) Robert Louis Wilken in "In Defense of Constantine" (*First Things*, April 2001, Number 112) calls the edict "the first official government document in the Western world to recognize the freedom of belief" (p. 37, lower left-hand column).

[20] Weigel, George, "Light in a New Dark Age," *The Wall Street Journal*, Vol. CCXLV, No. 78, Thursday, April 24, 2005, p. A16

[21] Kreider, Alan, "Beyond Bosch: The Early Chruch and the Christendom Shift," *International Bulletin of Missionary Research* Vol. 29, No. 2, April 2005, page 61, bottom of right hand column

[22] Ibid., bottom of left hand column. He also says immediately above this that the Edict of Milan "led to a compromise between the church and the emperor whereby 'the emperor was to rule in "time" and Christ in "eternity,""" so Christendom cannot be considered a true theocracy, rather it represented the kind of division between church and state Christ pointed to when presented with a coin bearing likeness of Caesar.

[23] As Wilken puts it, "Christianity is a culture forming religion" ("In Defense of Constantine," p. 39, lower right-hand column).

[24] Cochrane, Charles Norris, *Christianity and Classic Culture* (Oxford University Press, 1980), Part II "Renovation," Chapter V "The New Republic: Constantine and the Triumph of the Cross," p. 197

[25] Latourette, Kenneth Scott, *The Unquenchable Light* (Eyre & Stottiswoode, London, 1945), Chapter 1 "The Initial Advance," p. 3. We are not to assume here that Latourette believes that as a state religion Christianity could not perform a critical or prophetic role. Plainly the church was quite capable of asserting its authority over Christian rulers and was effective in "Christianizing" state policies. But it is to say that under Christendom, Christianity's emphases began to shift. For example, Christ became more imperial (something Kreider points out in his essay, section 6 "The Role of Jesus," p. 64). Theologians developed a theology to justify some wars (Kreider, section 5 "Inculturation," p. 64, lower left hand column). Evangelical outreach became more coercive. And infant baptism became the norm (Kreider, section 4 "Sanctions," p. 53, right hand column). Wilken argues that it is easy to overstate the coercive side of Christianity here. Distinguishing between exclusivism and intolerance, and intolerance (which he sees as a theological matter) and coercion (which he sees as political), Wilken understands Constantinianism as a significant step toward religious freedom (see "In Defense of Constantine," p. 38).

intellectual revolution in the eighteenth and nineteenth,[26] coupled with the carnage of two world wars and the Russian revolution, is generally taken to represent the demise of Christendom in its cultural sense.

Several things made the emergence of this cultural matrix possible: the collapse of prior cultural paradigms; the activity of missionaries who, from within those failing paradigms, proclaimed a message that not only answered the new questions being asked but could also be inculturated or incarnated into the old ideational forms thus making the new answers comprehensible;[27] a unified geography; the emergence of a single institutional church with an articulable set of ideas and the means to enforce adherence to them; and an overarching system of law based on the religious belief of that church and to which everyone answered.

In the present situation, we have the collapse of cultural paradigms and the activity of missionaries proclaiming an incarnational faith within those failing paradigms, but we do not have a unified geography (although describing this disparate region as "the South" represents an effort to create the impression that we do), a single institutional church, or an overarching system of law based on its religious belief. It is very likely that the differences between the present and the fifth century will outweigh their similarities and prevent the emergence of a cultural unity that will recreate, in a "southern" context, European Christendom. It is around these differences Sannah builds his argument.

Sanneh's objection to Jenkins' thesis

Sanneh begins by distinguishing between world Christianity which he understands as comprised of indigenous responses to the gospel, and global Christianity which he believes faithfully replicates forms and patterns developed in Europe,[28] and which, to borrow Graham Kings' description phrase, "has been 'orchestrated' by the West and is enmeshed in global structures of power and economics."[29] Global Christianity, Sanneh says, bears the vestiges of colonialism and recalls the forces of economic globalization.[30] In this sense, he admits, "'Global Christianity' and 'Christendom' are interchangeable." He believes, however, that they are "anachronistic."[31] This is because the future belongs to world Christianity.

In Sannah's view, world Christianity is fundamentally tribal and emerged as the scriptures were translated into indigenous languages, a development that allowed for the decolonization of Christian theology. In the

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[26] I understand this revolution to be represented by Darwinism, biblical criticism, Marxism, and the like, and to be based on the conceit that human ideas and institutions are the creations of historical processes and, hence, are contingent, relative (either culturally or otherwise), provisional, and psychological.
[27] As noted in footnote 19, Kreider in "Beyond Bosch" argues that with the emergence of Christendom, Christianity became coercive. He also argues that the emphasis on orthodoxy reflected this more coercive context as that the focus of the church shifted from evangelism and nurture to the nuances of belief (p. 64, left hand column). While there is much truth to this, (and I hasten to add that Kreider does not think this emphasis on orthodoxy was a bad thing, rather he thinks it instilled the faith with intellectual rigor [here he follows David Bosch, p. 59, lower left hand column] and addressed questions that urgently needed addressing), we are talking not about Christendom itself but about the conditions that made the appearance of Christendom possible. Mission outreach, I would argue, was the *sine qua non* of Christendom. As Wilken argues in "In Defense of Constantine," "[S]ome form of Constantinianism is an inescapable consequence of the Church's success" (p. 40, upper left-hand column), and the Church's success depends on effective evangelism.
[28] Sanneh, Lamin, *Whose Religion Is Christianity? Christianity Beyond the West*, Chapter 1 "The Wind Blows Where It Wills: Christianity as a World Religion," Part II "World Christianity and Christendom: Parallels and Divergences," p. 22. It should be noted that Jenkins occasionally uses the term world Christianity to designate his own position.
[29] Kings, Graham, review of *Whose Religion Is Christianity? Christianity Beyond the West, International Bulletin of Missionary Research*, Vol. 29, N. 2, April 2005, pp. 102 - 103. The phrase "global structures of power and economics" comes for page 78 of Sanneh's book (Chapter 1, Part III "Assessment and Feedback: Prelude to the Future") and is used by Sanneh's fictional interlocutor.
[30] Sanneh, *Whose Religion is Christianity?*, Chapter 1, Part II, p. 23
[31] Ibid.

process, world Christianity was "weaned of the political habits of Christendom."[32] "An inculturated Christianity," he writes, "anticipates an emancipated society."[33] And of course emancipation means identity and autonomy. Thus Sanneh takes full account of the tribal nature of the world today. Indeed, he see Christianity as contributing to this.

"Christian expansion," Sanneh points out, "is occurring in societies marked by weak states and among impoverished populations, and where religious loyalties are stronger than political ones,"[34] and the striking thing about the resulting communities, he notes, is their political weakness. They comprise a persecuted, not a persecuting, movement.[35] Indeed, such communities present "a moral challenge to the political idolatry of the ideological state," a challenge which lies behind the state's decision to persecute the faith.[36] In this way, world Christianity shares in the persecution the was the norm for the early church.[37]

Sanneh stresses that world Christianity is too politically weak and too theologically and culturally diverse to replicate something even faintly resembling the old Christendom, and this will certainly remain the case for the next century or two. One or two centuries, I would argue, will provide more than enough time for economic conditions to have transformed themselves utterly, an observation that is in philosophical discourse called a "defeater" for Jenkins' position since, if "Southern" Christendom is to emerge, regional poverty must endure long enough to allow it to develop. However, economic realities are far too dynamic for anything like that to be likely. Thus what we should except is not the emergence of a "Southern" Christendom, but an explosion of denominationalism. And rampant denominationalism is precisely what we are seeing. If there is a model, one might seek it not in European Christendom but in the current United States.

Conclusion

I believe Jenkins' argument fails sociologically, theologically, and economically. It fails sociologically because it misconstrues the social dynamics currently at work. Today we are not witnessing global homogenization, though that may come in the more distant future, we are instead witnessing a revitalization of tribalism. The immediate future will be far more tribal than unified, and conflicts, though they may have religious components, will be primarily tribal. For example, the victims of Muslim terrorism have been overwhelmingly Muslim. Yet, to be credible, Jenkins must assume a unification transcending tribal distinctions. That is, after all, what European Christendom achieved: a theological, social, and ultimately an economic and historical unity forged from Europe's tribes. To expect Christianity to forge something analogous in the "South" by the end of the twenty-first century seems wildly unrealistic.

Jenkins' argument also fails theologically since he misunderstands both the incarnational and missionary aspects of the gospel. While the gospel may borrow to make its message more intelligible, it does not become what it borrows. When it does become what it borrows, it ceases to be the gospel. And its missionary character means that, in order to be intelligible across cultural contexts, it must shed whatever cultural distinctives it acquires. In the end, successful evangelization may Christianize a region and this may be a step toward the reestablishment of Christendom, but if history is any guide, this is a very slow process, the contours of which our grandchildren's grandchildren might perhaps begin to discern.

Finally Jenkins' argument fails economically because he does not appreciate the tremendous potential of the global economy to improve the lives of those in the "Southern" world. Yet for his thesis to be true, the economy must fail to do that since it is poverty, in the final analysis, that provides the glue for "Southern" Christendom. Nor is Jenkins alone in missing this point. For example, Johnson and Kim, following David Smith, distinguish between globalization from above (the bad kind of globalization) from globalization

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[32] Ibid., p. 24
[33] Ibid., p. 25
[34] Ibid., p. 27
[35] Ibid., p. 29
[36] Ibid., p. 74
[37] Ibid., Part III, p. 120

from below (the good kind of globalization) by arguing that the former is an expression of the spread of an economic system (specifically "voracious" Western capitalism) while the latter is characterized by person-to-person contacts via Non-Governmental Organizations, cultural exchange programs, and missions.[38] Apparently in their view capitalism fails to facilitate person-to-person contacts, or at least fails to facilitate such contacts in any healthy way! Yet, as we have argued above, the emerging post World War II global economy has significantly improved the economic lives of people all over the "South." Indeed, the areas where this improvement is not so noticeable, specifically the Muslim world and sub-Saharan Africa, have been hampered precisely to the extent they have not participated in the global economy!

While I am not convinced that Sanneh appreciates the wealth creating potential of capitalism to elevate the standard of living in the "South," and while he may not fully appreciate the ecumenical side of Christianity, Sanneh is much more aware of current cultural dynamics than Jenkins seems to be. Sanneh understands the tribal nature of our current world and appreciates how definitive it is, and he has a much more accurate grasp of the role Christianity plays in helping to preserve cultural distinctives, as his discussion on translation shows. Sanneh is also more sanguine than Jenkins about Thus I conclude that Sanneh is likely to be shown to be more nearly correct than Jenkins.

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[38] Johnson and Kim, "Describing the Worldwide Christian Phenomenon," *International Bulletin of Missionary Research*, Vol. 29, No. 2, Section "Choosing Terms," p. 82, second full paragraph in the right hand column

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The years wrap us unevenly

In their variegated textures.

For time unfolds according to its order.

But we get old a piece at a time.

A string of gray surrounds us.

A persistent stiffness,

A crumb of decay, a sudden splinter of pain.

Old age comes unevenly.

Rapping at us like a woodpecker.

Dr. Ben Michael Carter

Mike's library is available for viewing at 2505 W. Northgate Drive in Irving Texas.

SECRETARIAT OF STATE

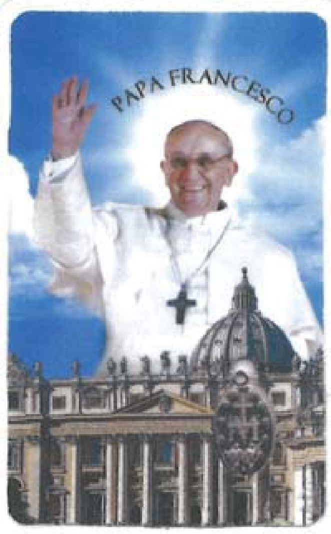
FIRST SECTION - GENERAL AFFAIRS

From the Vatican, 19 September 2017

Dear Ms Carter,

I am writing to acknowledge the gift of inscribed copies of Dr Ben Michael Carter's writings, which you presented to His Holiness Pope Francis.

In expressing appreciation for this kind gesture, I am pleased to assure you of His Holiness's prayers for your late husband and for you and your intentions.



Yours sincerely,

Monsignor Paolo Borgia
Assessor

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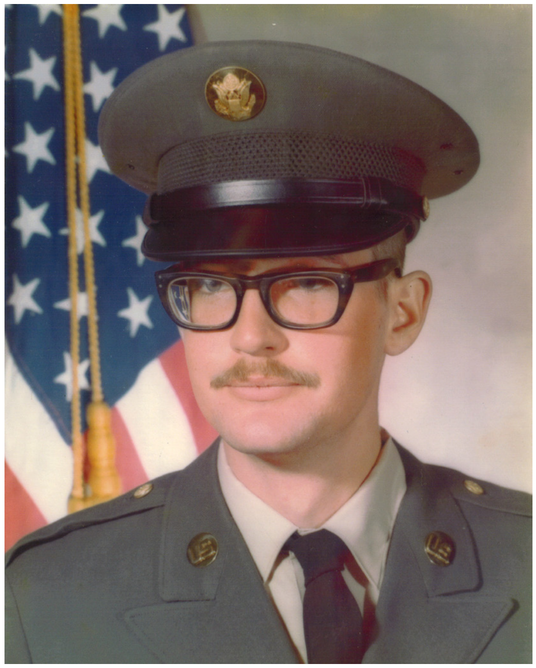

Ben Michael "Mike" Carter was a Renaissance man who loved writing. He authored six theology books and a novel. He also wrote for magazines, journals and newspapers, as well as poetry reviews. He earned a B.A. in Economic History from the University of Wisconsin, Milwaukee, an MA in theological studies from Wheaton College, Illinois, an M.Th. from the University of Aberdeen in Scotland, U.K., and a Ph.D. in History of Christianity in the non-western world from the University of Edinburgh in Scotland, United Kingdom. He was a member of the Irving chapter of the Texas Poetry Society, the American Scientific Affiliation, and the Evangelical Theological Society. He was married to Salma Carunia from Dohnavur Fellowship, Tirunelvel, South India.