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AMERICA'S EXHAUSTED PARADIGM: MACROECONOMIC CAUSES OF THE FINANCIAL CRISIS AND GREAT RECESSION[1]

Thomas Palley

ABSTRACT

This paper traces the roots of the current financial crisis to a faulty U.S. macroeconomic paradigm. One flaw in this paradigm was the neoliberal growth model adopted after 1980 that relied on debt and asset price inflation to drive demand in place of wage growth. A second flaw was the model of U.S. engagement with the global economy that created a triple economic hemorrhage of spending on imports, manufacturing job losses, and off-shoring of investment. Financial deregulation and financial excess are important parts of the story, but they are not the ultimate cause of the crisis. These developments contributed significantly to the housing bubble but they were a necessary part of the neoliberal model, their function being to fuel demand growth by making ever larger amounts of credit easily available. As the neoliberal model slowly cannibalized itself by undermining income distribution and accumulating debt, the economy needed larger speculative bubbles to grow. The flawed model of global engagement accelerated the cannibalization process, thereby creating need for a huge bubble that only housing could provide. However, when that bubble burst it pulled down the entire economy because of the bubble's massive dependence on debt. The old post-World War II growth model based on rising middle-class incomes has been dismantled, while the new neoliberal growth model has imploded. The United States needs a new economic paradigm and a new growth model, but as yet this challenge has received little attention from policymakers or economists.

I. INTRODUCTION

The current financial crisis is widely recognized as being tied to the bursting of the house price bubble and the debts accumulated in financing that bubble. Most commentary has therefore focused on market failure in the housing and credit markets. But what if the house price bubble developed because the economy needed a bubble to ensure continued growth? In that case the real cause of the crisis would be the economy's underlying macroeconomic structure. A focus on the housing and credit markets would miss that.

Despite the relevance of macroeconomic factors for explaining the financial crisis, there is resistance to such an explanation. In part, this is because such factors operate indirectly and gradually, while microeconomic explanations that emphasize regulatory failure and flawed incentives within financial markets operate directly. Regulatory and incentive failures are specific, easy to understand, and offer a concrete “fixit” agenda that appeals to politicians who want to show they are doing something. They also tend to be associated with tales of villainy that attract media interest (such as Bernie Madoff’s massive Ponzi scheme or the bonus scandals at AIG and Merrill Lynch). Finally, and perhaps most important, a microeconomic focus does not challenge the larger structure of economic arrangements, while a macroeconomic focus invites controversy by placing these matters squarely on the table.

But, an economic crisis of the current magnitude does not occur without macroeconomic forces. That means the macroeconomic arrangements that have governed the U.S. economy for the past 25 years are critical for explaining the crisis. Two factors in particular have come into play. The first concerns the U.S. economic growth model and its impact on the pattern of income distribution and demand generation. The second concerns the U.S. model of global economic engagement and its impact on the structure of U.S. economic relations within the global economy.

The macroeconomic forces unleashed by these twin factors have accumulated gradually and made for an increasingly fragile and unstable macroeconomic environment. The brewing instability over the past two decades has been visible in successive asset bubbles, rising indebtedness, rising trade deficits, and business cycles marked by initial weakness (so-called jobless recovery) followed by febrile booms. However, investors, policymakers, and economists chose to ignore these danger signs, resolutely refusing to examine the flawed macroeconomic arrangements that have led to the cliff’s edge. It is time to take a step back and look at how we got ourselves in this precarious position. Then perhaps we can figure out where to go next.

II. THE FLAWED U.S. GROWTH MODEL

Economic crises should be understood as a combination of proximate and ultimate factors. The proximate factors represent the triggering events, while the ultimate factors represent the deep causes. The meltdown of the subprime mortgage market in August 2007 triggered the current crisis, which was amplified by policy failures such as the decision to allow the collapse of Lehman Brothers. However, a crisis of the magnitude now being experienced requires a facilitating macroeconomic environment. That macroeconomic environment has been a long time in the making and can be traced back to the election of Ronald Reagan in 1980 and the formal inauguration of the era of neoliberal economics.

a. The Post-1980 Neoliberal Growth Model

The impact of the neoliberal economic growth model is apparent in the changed character of the U.S. business cycle (Palley, 2005). Before 1980, economic policy was designed to achieve full employment, and the economy was characterized by a system in which wages grew with productivity. This configuration created a virtuous circle of growth. Rising wages meant robust aggregate demand, which contributed to full employment. Full employment in turn provided an incentive to invest, which raised productivity, thereby supporting higher wages.

After 1980, with the advent of the new growth model, the commitment to full employment was abandoned as inflationary, with the result that the link between productivity growth and wages was severed. In place of wage growth as the engine of demand growth, the new model substituted borrowing and asset price inflation. Adherents of the neoliberal orthodoxy made controlling inflation their primary policy concern, and set about attacking unions, the minimum wage, and other worker protections. Meanwhile, globalization brought increased foreign competition from lower-wage economies and the prospect of off-shoring of employment.

The new neoliberal model was built on financial booms and cheap imports. Financial booms provide consumers and firms with collateral to support debt-financed spending. Borrowing is also sustained by financial innovation and deregulation that ensures a flow of new financial products, allowing increased leverage and widening the range of assets that can be collateralized. Meanwhile, cheap imports ameliorate the impact of wage stagnation, thereby maintaining political support for the model. Additionally, rising wealth and income inequality makes high-end consumption a larger and more important component of economic activity, leading to the development of what Ajay Kapur, a former global strategist for Citigroup, termed a "plutonomy."

These features have been visible in every U.S. business cycle since 1980, and the business cycles under presidents Reagan, Bush *père*, Clinton, and Bush *fils* have robust commonalities that reveal their shared economic paradigm. Those features include asset price inflation (equities and housing); widening income inequality; detachment of worker wages from productivity growth; rising household and corporate leverage ratios measured respectively as debt/income and debt/equity ratios; a strong dollar; trade deficits; disinflation or low inflation; and manufacturing job loss.

The changes brought about by the post-1980 economic paradigm are especially evident in manufacturing employment (see tables 1 and 2). Before 1980, manufacturing employment rose in expansions and fell in recessions, and each expansion tended to push manufacturing employment above its previous peak.[2] After 1980, the pattern changes abruptly. In the first two business cycles (between July 1980 and July 1990) manufacturing employment rises in the expansions but does not recover its previous peak. In the two most recent business cycles (between March 1991 and December 2007), manufacturing employment not only fails to recover its previous peak but actually falls over the entirety of the expansions.

Table 1. Manufacturing Employment by Business Cycle, October 1945 -January 1980

Trough	**Employment** *(Millions)*	**Peak**	**Employment** *(Millions)*	**Change** *(Millions)*
Oct. 1945	12.5	Nov.1948	14.3	1.8
Oct. 1949	12.9	Jul.1953	16.4	3.5
May 1954	15.0	Aug.1957	15.9	0.9
Apr. 1958	14.5	Apr.1960	15.7	1.2
Feb. 1961	14.8	Dec.1969	18.6	3.8
Nov.1970	17.0	Nov.1973	18.8	1.8
Mar.1975	16.9	Jan.1980	19.3	2.4

Source: National Bureau of Economic Research, Bureau of Labor Statistics and author's calculations.

Table 2. Manufacturing Employment by Business Cycle, July 1980 -December 2007

Trough	**Employment** *(Millions)*	**Peak**	**Employment** *(Millions)*	**Change** *(Millions)*
July 1980	18.3	July 1981	18.8	0.5
Nov.1982	16.7	July 1990	17.7	1.0
Mar.1991	17.1	Mar.2001	16.9	-0.2
Nov.2001	15.8	Dec.2007	13.8	-2.0

Source: National Bureau of Economic Research, Bureau of Labor Statistics and author's calculations.

The great myth about manufacturing, which has been hard to puncture, is that the observed pattern of decline is a natural and benevolent outcome of manufacturing's relatively higher rate of productivity growth. The confusion stems from the fact that higher productivity growth does mean manufacturing's employment share tends to decline naturally. However, a smooth long run declining employment share brought about by investment and innovation that creates a more efficient manufacturing sector is a fundamentally different proposition from decline caused by adoption of a policy paradigm that dismantles the manufacturing sector by encouraging off-shoring and undermining competitiveness.[3]

The reality is the break in the historical pattern of manufacturing employment growth shown in Tables 1 and 2 reflects a changed policy paradigm that first undermined manufacturing and eventually undermined the entire economy. This changed policy paradigm is perhaps most clearly illustrated by the change in policy attitudes toward the trade deficit.

Under the earlier economic model, policymakers viewed trade deficits as cause for concern because they represented a leakage of aggregate demand that undermined the virtuous circle of growth. However, under the post-1980 model, trade deficits came to be viewed as semi-virtuous because they helped to control inflation and because they reflected the choices of consumers and business in the marketplace. According to neoliberal economic theory, those choices represent the self-interest of economic agents, the pursuit of which is good for the economy. As a result, the trade deficit was allowed to grow steadily, hitting new peaks as a share of GDP in each business cycle after 1980. This changed pattern is illustrated in table 3, which shows the trade deficit as a share of GDP at each business cycle peak.

Table 3. The U.S. Goods Trade Deficit by Business Cycle Peaks, 1960 Ğ2007

Peak year	Trade deficit ($ millions)	GDP ($ billions)	Trade deficit/ GDP (%)
1960	3,508	526.4	0.7
1969	91	984.6	0.0
1973	1,900	1,382.7	0.1
1980	-25,500	2,789.5	-0.9
1981	-28,023	3,128.4	-0.9
1990	-111,037	5,803.1	-1.9
2001	-429,519	10,128.0	-4.2
2007	-819,373	13,807.5	-5.9

Source: Economic Report of the President, 2009 and author's calculations.

The effect of the changed growth model is also evident in the detachment of wages from productivity growth, as shown in table 4. It is also evident in rising income inequality, as shown in table 5. Between 1979 and 2006, the income share of the bottom 40 percent of U.S. households decreased significantly, while the income share of the top 20 percent increased dramatically. Moreover, a disproportionate part of that increase went to the 5 percent of families at the very top of income distribution rankings.[4]

Table 4. Hourly wage and productivity growth, 1967Ğ2006 (2007 dollars)

Period	Productivity growth	Hourly wage growth	Productivity - wage gap
1967ğ73	2.5%	2.9%	-0.4
1973ğ79	1.2	-0.1	1.3
1979-89	1.4	0.4	1.0
1989-2000	1.9	0.9	1.0
2000-06	2.6	-0.1	2.7

Source: Lawrence Michel, Jared Bernstein, and Heidi Shierholz, *The State of Working America 2008/2009* (Ithaca, NY: ILR Press, forthcoming).

Table 5. Distribution of Family Income by Household Income Rank, 1947Ğ2006

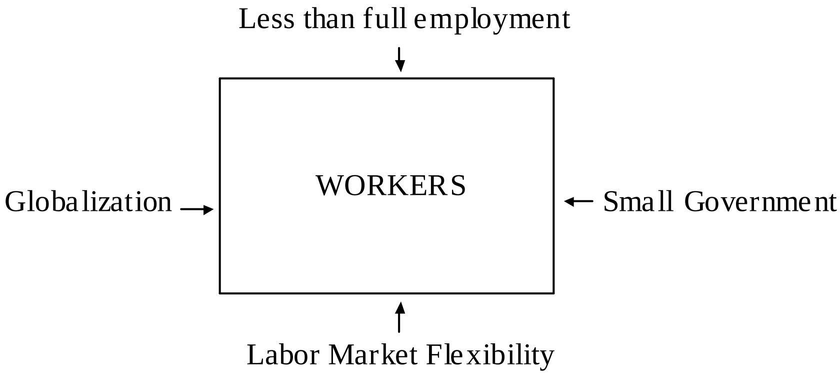
Year	Bottom 40%	Next 40%	Next 15%	Top 5%
1947	16.9%	40.1%	25.5%	17.5%
1973	17.4	41.5	25.6	15.5
1979	17.0	41.6	26.1	15.3
1989	15.2	40.2	26.7	17.9
2000	14.1	38.1	26.6	21.1
2006	13.5	38.0	27.0	21.5

Source: Lawrence Michel, Jared Bernstein, and Heidi Shierholz, *The State of Working America 2008/2009* (Ithaca, NY: ILR Press, forthcoming).

b. The Role of Economic Policy

Economic policy played a critical role in generating and shaping the new growth model, and the effects of that policy boxed in workers.[5] The four sides of the neoliberal policy box (see figure 1) are globalization, small government, labor market flexibility, and retreat from full employment. Workers are pressured on all four sides, and it is this pressure that led to the severing of the wage/productivity growth link.[6]

Figure 1. The NeoLiberal Policy Box



Globalization, in part spurred by policies encouraging free trade and capital mobility, means that American workers are increasingly competing with lower-paid foreign workers. That pressure is further increased by the fact that foreign workers are themselves under pressure owing to the so-called Washington Consensus development policy, sponsored by the International Monetary Fund (IMF) and the World Bank, which forces them into the same neoliberal box as American workers. Thus, neoliberal policies not only undermine demand in advanced countries, they fail to compensate for this by creating adequate demand in developing countries. This is clearly evident in China which has been marked by rising income inequality and a sharp decline in the consumption to GDP ratio.[7] The net result of global implementation of neoliberal orthodoxy is the promotion of deflationary global economic conditions.

Small government policies undermine the legitimacy of government and push privatization, deregulation, and light-touch regulation. Though couched in terms of liberating the economy from detrimental governmental interference, "small government" policies have resulted in the erosion of popular economic rights and protections. This is exemplified by the 1996 reform of U.S. welfare rights. Moreover, the government's administrative capacity and ability to provide services have been seriously eroded, with many government functions being outsourced to corporations. This has led to the creation of what the economist James Galbraith (2008) terms the "predator state," in which corporations enrich themselves on government contracts, while the out-sourced workers employed by these corporations confront a tougher work environment.

Labor market flexibility involves attacking unions, the minimum wage, unemployment benefits, employment protections, and employee rights. This is justified in the name of creating labor market flexibility, including downward wage flexibility, which according to neoliberal economic theory is supposed to generate full employment. Instead, it has led to wage stagnation and widening income inequality.

Abandonment of full employment means having the Federal Reserve emphasize the importance of keeping inflation low over maintaining full employment. This switch was promoted by the economics profession's adoption of Milton Friedman's (1968) theory of the natural rate of unemployment, which claims monetary policy cannot affect long-run equilibrium employment and unemployment.

The new theory dramatically changed macroeconomic policy. First, talk of full employment was abandoned in favor of talk about the natural rate of unemployment. Second, natural rate theory justified labor market flexibility policies as the only way to lower unemployment. Third, since monetary policy could do nothing to permanently lower unemployment, natural rate theory pushed a focus on low and stable inflation, a logic which in recent years has been used to push the adoption of formal inflation targets. Of course, no Federal Reserve Chairman was so politically inept as to publicly announce the abandonment of full employment as a policy goal. Instead, the new theory provided Federal Reserve policymakers with political cover for increased tolerance of unemployment, which contributed to undermining workers' bargaining power regarding wages (Palley, 2007).[8]

c. *The Neoliberal Bubble Economy*

The implementation of neoliberal economic policies destroyed the stable virtuous circle growth model based on full employment and wages tied to productivity growth, replacing it with the current growth model based on rising indebtedness and asset price inflation. Since 1980, each U.S. business cycle has seen successively higher debt/income ratios at end of expansions, and the economy has become increasingly dependent on asset price inflation to spur the growth of aggregate demand.

Table 6 shows the rising household debt to GDP ratio and rising nonfinancial business debt to GDP ratio under the neoliberal growth model. Compared to the period 1960-1981, the period 1981-2007 saw enormous increases in the debt/GDP ratios of both the household and nonfinancial corporate sectors.

Table 6. Household Debt/GDP and Non - Financial Corporation Debt/GDP Ratios by Business Cycle Peaks, 1948 Ğ2007

Year	GDP ($ billions)	Household debt (H) ($ billions)	H/GDP	Non-financial Corp debt (C) ($ billions)	C/GDP
1960	526.4	215.6	0.41	201.0	0.38
1969	984.6	442.7	0.45	462.0	0.47
1973	1,382.7	624.9	0.45	729.5	0.53
1981	3,128.4	1,507.2	0.48	1662.0	0.53
1990	5,803.1	3,597.8	0.62	3,753.4	0.65
2001	10,128.0	7682.9	0.76	6,954.0	0.69
2007	13,807.5	13,765.1	1.00	10,593.7	0.77

Source: FRB Flow of Funds Accounts and author Õs calculations.

Table 7 shows the rising household debt service ratio, measured as the ratio of debt service and financial obligations to disposable personal income. That this ratio trended upward despite a huge decline in nominal interest rates is evidence of the massively increased reliance on debt by households. In 1980 the average prime rate charged by banks was 15.27 percent: in 2007 it was 8.05 percent.

Table 7. Household Debt Service and Financial Obligations Ratio (DSR)

Year	**1980. q3**	**1991. q3**	**2001. q4**	**2007. q4**
DSR	10.9%	12.0%	13.4%	14.3%

Source: Federal Reserve Board.

Table 8 shows the pattern of house price inflation over the past 20 years.[9] This table is revealing in two ways. First, it shows the extraordinary scale of the 2001–06 house price bubble. Second, it reveals the systemic role of house price inflation in driving economic expansions. Over the last 20 years, the economy has tended to expand when house price inflation has exceeded CPI (consumer price index) inflation. This was true for the last three years of the Reagan expansion. It was true for the Clinton expansion. And it was true for the Bush-Cheney expansion. The one period of sustained house price stagnation was 1990-95, which was a period of recession and extended jobless recovery. This is indicative of the significance of asset price inflation in driving demand under the neoliberal model.

Table 8. CPI Inflation and Home Price Inflation Based on the S&P/Case-Shiller National Home Price Values Index

Period	**1987.q1 Ğ 1990.q1**	**1990.q1 Ğ 1995.q1**	**1995.q1 Ğ 2001.q1**	**2001.q1 Ğ 2006.q1**
Average home price inflation (%)	6.7	0.6	5.7	10.9
Average CPI Inflation (%)	4.5	3.5	2.5%	2.5
Excess house inflation (%)	2.2	-2.9	3.2	8.4

Source: S&P/Case-Shiller index and author's calculations.

Along with rising debt ratios, households progressively cut back on their savings rates, as shown in table 9. This reduction provided another source of demand.

Table 9. Personal Savings Rate (PSR)

Period	**1960**	**1969**	**1973**	**1980**	**1981**	**1991**	**2001**	**2007**
PSR (%)	7.3	7.8	10.5	10.0	10.9	7.3	1.8	0.6

Source: Economic Report of the President, table B.30 (2009).

The logic of the neoliberal growth model rests on redirecting income from lower- and middle-income households to corporate profits and upper-income households. Asset prices are bid up by a host of measures, including higher profits, savings by the super-rich that are directed to asset purchases, borrowing to buy assets, and such institutional changes as the shift from traditional defined benefit pension plans to defined contribution – such as 401(k) – pension plans. Consumption is maintained by lower household savings rates and by borrowing that is collateralized by higher asset prices. The reduction in savings rates is partly a response to squeezed incomes and partly rationalized on the grounds that households are wealthier because of higher asset prices (including house prices).

The problem with the model is that it is unsustainable. Maintaining growth of spending on consumption requires continued excessive borrowing and continued reduction in savings rates. Continued excessive borrowing requires ever increasing asset prices and debt/income ratios: hence, the systemic need for bubbles (which eventually burst). Meanwhile, when the savings rate hits zero, little further reduction is possible. Consequently, both drivers of demand eventually exhaust themselves.

The current financial crisis is different and deeper from earlier crises in two ways. First, the impact of earlier burst bubbles – such as the 2001 stock market and dot-com bubbles – was contained because their debt footprint was not that deep. Though financial wealth was destroyed and economic activity was temporarily restrained, the financial system remained intact. However, the housing bubble of 2001-2007 was debt financed and massive in size, and its bursting pulled down the entire financial system. Second, the drivers of aggregate demand are now exhausted because of the scale of debt accumulation and the rundown of the savings rate. In earlier crises, households still had unused borrowing capacity they could call upon and room to further reduce their saving. Both of those channels are now exhausted, making recovery a much more difficult task. Indeed, if households try to rebuild their financial worth that will increase savings rates, which will further deepen and prolong the downturn.

The economic growth model adopted after 1980 lasted far longer than it might have been expected to because of our capacity to expand access to debt and increase leverage. That is the real significance of deregulation and financial innovation, which had a functional role in sustaining the neoliberal model. However, delaying the day of reckoning also made it more severe when it arrived. When the subprime detonator set off the financial crisis, the economy's financial structure – 25 years in the making and integrally linked to the economic logic of the neoliberal growth model – proved to be extremely fragile and akin to a house of cards.[10]

III. THE FLAWED GLOBAL ECONOMIC ENGAGEMENT MODEL

Though prone to instability (i.e., to boom and bust), the neoliberal growth model might have operated successfully for quite a while longer were it not for a U.S. economic policy that created a flawed engagement with the global economy. This flawed engagement undermined the economy in two ways. First, it accelerated the erosion of household incomes. Second, it accelerated the accumulation of unproductive debt – that is, debt that generates economic activity elsewhere rather than in the United States.

The most visible manifestation of this flawed engagement is the goods trade deficit, which hit a record 6.4 percent of GDP in 2006. This deficit was the inevitable product of the structure of global economic engagement put in place over the past two decades, with the most critical elements being implemented by the Clinton administration under the guidance of Treasury Secretaries Robert Rubin and Lawrence Summers. That eight-year period saw the implementation of the North American Free Trade Agreement (NAFTA), the adoption after the East Asian financial crisis of 1997 of the "strong dollar" policy, and the establishment of permanent normal trade relations (PNTR) with China in 2000.

These measures cemented the model of globalization that had been lobbied for by corporations and their Washington think-tank allies. The irony is that giving corporations what they wanted undermined the neoliberal model by surfacing its contradictions. The model would likely have eventually slumped because of its own internal dynamic, but the policy triumph of corporate globalization accelerated this process and transformed it into a financial crash.

a. The Triple Hemorrhage

Flawed global economic engagement created a "triple hemorrhage" within the U.S. economy. The first economic hemorrhage, long emphasized by Keynesian economists, was leakage out of the economy of spending on imports. Household income and borrowing was significantly spent on imports, creating incomes offshore rather than in the United States. Consequently, borrowing left behind a debt footprint but did not create sustainable jobs and incomes at home.

The second hemorrhage was the leakage of jobs from the U.S. economy as a result of offshore outsourcing, made possible by corporate globalization. Such off-shoring directly reduced the number of higher-paying manufacturing jobs, cutting into household income. Moreover, even when jobs did not move offshore, the threat of off-shoring could be used to secure lower wages, thereby dampening wage growth and helping sever wages from productivity growth (Bronfenbrenner, 2000; Bronfenbrenner and Luce, 2004).

The third hemorrhage concerned new investment. Not only were corporations incentivized by low foreign wages, foreign subsidies, and under-valued exchange rates to close existing plants and shift their production offshore, they were also incentivized to shift new investment offshore. That did double damage. First, it reduced domestic investment spending, hurting the capital goods sector and employment therein. Second, it stripped the U.S. economy of modern industrial capacity, disadvantaging U.S. competitiveness and reducing employment that would have been generated to operate that capacity.

A further unanticipated economic leakage from the flawed model of global engagement concerns energy prices. Off-shoring of U.S. manufacturing capacity has often involved the closing of relatively energy-efficient and environmentally cleaner production and its replacement with less efficient and dirtier foreign production. In addition, the shipping of goods from around the world to the U.S. market has compounded these effects. These developments added to energy demand and contributed to the 2005-2008 increase in oil prices, which added to the U.S. trade deficit and effectively imposed a huge tax (paid to OPEC) on U.S. consumers.

The flawed model of global economic engagement broke with the old model of international trade in two ways. First, instead of having roughly balanced trade, the United States has run persistent large trade deficits. Second, instead of aiming to create a global marketplace in which U.S. companies could sell their products, its purpose was to create a global production zone in which U.S. companies could either produce or obtain inputs from. In other words, the main purpose of international economic engagement was not to increase U.S. exports, but rather to substitute cheaper imported inputs for U.S. domestic production and to facilitate American-owned production platforms in developing countries that could export to the United States.

As a result, at the bidding of corporate interests, the United States joined itself at the hip to the global economy, opening its borders to an inflow of goods and exposing its manufacturing base. This was done without safeguards to address the problems of exchange rate misalignment and systemic trade deficits, or the mercantilist policies of trading partners.

The problem is that this new system created a widening hole in U.S. the economy by undermining domestic production, employment, and investment. That hole accelerated the contradictions in the neoliberal model but those contradictions were held at bay by ever more borrowing backed by asset price inflation. When these latter processes exhausted themselves the system collapsed, with the collapse taking the form of a financial crisis. Moreover, since the new arrangement had the global economy joined at the hip to the U.S. economy, this meant the global economy also cratered when the U.S. economy cratered.

b. NAFTA

The creation of the new system took off in 1989 with the implementation of the Canada-U.S. Free Trade Agreement that established an integrated production zone between the two countries. The 1994 implementation of NAFTA was the decisive next step, and in many regards NAFTA can be viewed as the first step along the path that ultimately led to the massive global trade imbalances that have so disrupted the U.S. and global economies.

With regard to specifics, NAFTA fused Canada, the United States, and Mexico into a unified North American production zone. More importantly, by including Mexico it joined developed and developing economies, thereby establishing the template U.S. corporations wanted.

NAFTA also dramatically changed the significance of exchange rates. Before, exchange rates mattered for trade and the exchange of goods. Now, they mattered for the location of production. That in turn changed the attitude of large U.S. multinational corporations (MNCs) toward the dollar. When U.S. companies produced domestically and looked to export, a weaker dollar was in their commercial interest and they lobbied against dollar overvaluation. However, under the new model, U.S. corporations looked to produce offshore and import into the United States. This reversed their commercial interest, making them proponents of a strong dollar. That is because a strong dollar reduces the dollar costs of foreign production, raising the profit margins on their foreign production sold in the United States at U.S. prices.

NAFTA soon highlighted this new dynamic because Mexico was hit by a financial crisis in January 1994, immediately after the implementation of the free trade agreement. To U.S. corporations, which had invested in Mexico and planned to invest more, the peso's collapse versus the dollar was a boon as it made it even more profitable to produce in Mexico and re-export to the United States. With corporate interests driving U.S. economic policy, the peso devaluation problem went unattended – and in doing so it also created a critical precedent.

The effects of NAFTA and the peso devaluation were immediately felt in the U.S. manufacturing sector in the form of job loss; diversion of investment; firms using the threat of relocation to repress wages; and an explosion in the goods trade deficit with Mexico, as shown in table 10. Whereas prior to the implementation of the NAFTA agreement the United States was running a goods trade surplus with Mexico, immediately afterward the balance turned massively negative and kept growing more negative up to 2007.

Table 10. US goods trade balance with Mexico before and after NAFTA ($ billions)
Source: Census Bureau.

1991	1992	1993	1994	1995	1996	2000	2005	2007
2.1	5.4	1.7	1.3	-15.8	-17.5	-24.5	-49.7	-74.6

These features helped contribute to the jobless recovery of 1993–96, though the economy was eventually able to overcome this with the stock market bubble that launched in 1996; the emergence of the Internet investment boom that morphed into the dot-com bubble; and the tentative beginnings of the house price bubble, which can be traced back to 1997. Together, these developments spurred a consumption and investment boom that masked the adverse structural effects of NAFTA.

c. The Response to the East Asian Financial Crisis

The next fateful step in the flawed engagement with the global economy came with the East Asian financial crisis of 1997, which was followed by a series of rolling financial crises in Russia (1998), Brazil (1999), Turkey (2000), Argentina (2000), and Brazil (2000). In response to these crises, Treasury Secretaries Rubin and Summers adopted the same policy that was used to deal with the 1994 peso crisis, thereby creating a new global system that replicated the pattern of economic integration established with Mexico.[11]

Large dollar loans were made to the countries in crisis to stabilize their economies. At the same time, the collapse of their exchange rates and the appreciation of the dollar was accepted and institutionalized in the form a "strong dollar" policy.[12] This increased the buying power of U.S. consumers, which was critical because the U.S. consumer was now the lynchpin of the global economy, becoming the buyer of first and last resort.[13]

The new global economic architecture involved developing countries exporting their production to the United States. Developing countries embraced this export-led growth solution to their development problem and were encouraged to do so by the IMF and the World Bank. For developing countries, the new system had a number of advantages, including the ability to run trade surpluses that allowed them to build up foreign exchange holdings to defend against capital flight; providing demand for their output, which led to job creation; and providing access to U.S. markets that encouraged MNCs to redirect investment spending toward them. The latter was especially important as it transferred technology, created jobs, and built up developing country manufacturing capacity.

U.S. multinationals were also highly supportive of the new arrangement as they now gained global access to low-cost export production platforms. Not only did this mean access to cheap foreign labor, but the overvalued dollar lowered their foreign production costs, thereby further increasing profit margins. Large importers, like the retailer Wal-Mart, also supported this arrangement. Furthermore, many foreign governments offered subsidies as an incentive to attract foreign direct investment (FDI).

In effect, the pattern of incentives established by the response to the East Asian financial crisis encouraged U.S. corporations to persistently downsize their U.S. capacity and shift production offshore for import back to the United States. This created a dynamic for progressively eroding U.S. national industrial capacity, while foreign economies were encouraged to steadily expand their capacity and export their way out of economic difficulties.

As with NAFTA, the adverse effects of this policy were visible almost immediately. As shown in table 11, the goods trade deficit took a further leap forward, surging from $198.4 billion in 1997 to $248.2 billion in 1998, and rising to $454.7 billion in 2000. In addition, as shown in table 12, there was a surge in imports from Pacific Rim countries. Part of the surge in the trade deficit was due to the boom conditions sparked by stock market euphoria, the dot-com bubble, and house price inflation, but the scale of the trade deficit surge also reflects the flawed character of U.S. engagement with the global economy.

Table 11. US Goods Trade Balance ($ billions)

1995	**1996**	**1997**	**1998**	**1999**	**2000**
-174.2	-191.0	-198.4	-248.2	-347.8	-454.7

Source: U.S. Census Bureau.

Table 12. US Goods Trade Balance with Pacific Rim Countries ($ billions)

1995	1996	1997	1998	1999	2000
-108.1	-101.8	-121.6	-160.4	-186.0	-215.4

Source: U.S. Census Bureau.

The proof of this claim is that manufacturing employment started falling despite boom conditions in the U.S. economy. Having finally started to grow in 1996, manufacturing employment peaked in March 1998 and started declining three full years before the economy went into recession in March 2001. That explains why manufacturing job growth was negative over the entirety of the Clinton expansion, a first in U.S. business cycle history.

As with NAFTA, these adverse effects were once again obscured by positive business cycle conditions. Consequently, the Clinton administration dismissed concerns about the long-term dangers of manufacturing job loss. Instead, the official interpretation was that the U.S. economy was experiencing – in the words of senior Clinton economic policy advisers Alan Blinder and Janet Yellen – a "fabulous decade" significantly driven by policy.[14] According to the ideology of the decade, manufacturing was in secular decline and destined for the dustbin of history. The old manufacturing economy was to be replaced by a "new economy" driven by computers, the Internet, and information technology.

d. China and PNTR

Though disastrous for the long-run health of the U.S. economy, NAFTA-style corporate globalization, plus the strong dollar policy, was extremely profitable for corporations. Additionally, the ultimate costs to households were still obscured by the ability of the U.S. economy to generate cyclical booms based on asset price inflation and debt. That provided political space for a continued deepening of the model, the final step of which was to incorporate China as a full-fledged participant.

Thus, corporations now pushed for the establishment of permanent normal trading relations (PNTR) with China, which Congress enacted in 2000. That legislation in turn enabled China to join the World Trade Organization, which had been established in 1996.

The significance of PNTR was not about trade, but rather about making China a full-fledged part of global production arrangements. China had enjoyed access to the U.S. market for years and its entry into the WTO did generate some further tariff reductions. However, the real significance was that China became a fully legitimate destination for foreign direct investment. That is because production from China was now guaranteed permanent access to the U.S. market, and corporations were also given internationally recognized protections of property and investor rights.

Once again the results were predictable and similar to the pattern established by NAFTA – though the scale was far larger. Aided by a strong dollar, the trade deficit with China increased dramatically after 2001, growing at a rate of 25 percent per annum and jumping from $83.1 billion in 2001 to $201.5 billion in 2005 (see table 13). Moreover, there was also massive inflow of foreign direct investment into China so that it became the world's largest recipient of FDI in 2002 – a stunning achievement for a developing country.[15] So strong was China's attractiveness as an FDI destination that it not only displaced production and investment in the United States but also displaced production and investment in Mexico (Greider, 2001).

Table 13. US Goods Trade Balance with China before and After PNTR ($ billions)

1998	1999	2000	2001	2002	2003	2004	2005	2007
-56.9	-68.7	-83.9	-83.1	-103.1	-124.1	-161.9	-201.5	-256.2

Source: U.S. Census Bureau.

According to academic and Washington policy orthodoxy, the new global system was supposed to launch a new era of popular shared prosperity. Demand was to be provided by U.S. consumers. Their spending was to be financed by the "new economy" based on information technology and the globalization of manufacturing, which would drive higher productivity and income. Additionally, consumer spending could be financed by borrowing and asset price inflation, which was sustainable because higher asset prices were justified by increased productivity.

This new orthodoxy was enshrined in what was termed the "New Bretton Woods Hypothesis," according to which the global economy had entered a new golden age of global development, reminiscent of the postwar era.[16] The United States would import from East Asian and other developing economies, provide FDI to those economies, and run large trade deficits that would provide the demand for the new supply. In return, developing countries would accumulate financial obligations against the United States, principally in the form of Treasury securities. This would provide them with foreign exchange reserves and collateral that was supposed to make investors feel secure. China was to epitomize the new arrangement.[17]

The reality is that the structure of U.S. international engagement, with its lack of attention to the trade deficit and manufacturing, contributed to a disastrous acceleration of the contradictions inherent in the neoliberal growth model. That model always had a problem regarding sustainable generation of demand because of its imposition of wage stagnation and high income inequality. Flawed international economic engagement aggravated this problem by creating a triple hemorrhage that drained consumer spending, manufacturing jobs, and investment and industrial capacity. This in turn compelled even deeper reliance on the unsustainable stopgaps of borrowing and asset price inflation to compensate.

As for developing economies, they embraced the post-1997 international economic order. However, in doing so they tied their fate to the U.S. economy, creating a situation in which the global economy was flying on one engine that was bound to fail. Consequently, far from creating a de-coupled global economy, it created a linked economy characterized by a concertina effect: when the U.S. economy crashed, other economies came crashing in behind (Palley, 2008b).

IV. AMERICA'S EXHAUSTED MACROECONOMIC PCARADIGM

The twin macroeconomics factors of an unstable growth model and of flawed global economic engagement were put in place during the 1980's and 1990's. However, their full adverse effects took time to build and the chickens only came home to roost in the 2001-2007 expansion. From that standpoint, the Bush-Cheney administration is not responsible for the financial crisis. Its economic policies can be criticized for mean-spiritedness and a greater proclivity for corporate favoritism, but they represented a continuation of the policy paradigm already in place. The financial crisis therefore represents the exhaustion of that paradigm rather than being the result of specific policy failures on the part of the Bush-Cheney administration (Palley, 2008c).

In a nutshell, the U.S. implemented a neoliberal growth model that relied on debt and asset price inflation. As the neoliberal model slowly cannibalized itself and became weaker, the economy needed larger speculative bubbles to grow. The flawed model of global engagement accelerated the cannibalization process, thereby creating need for a huge bubble that only housing could provide. However, when that bubble burst it pulled down the entire economy because of the bubble's massive dependence on debt.

In many regards the neoliberal paradigm was already showing its limits in the 1990's. An extended jobless recovery marked the business cycle of the 1990's when the term was coined and the boom was accompanied by a stock market bubble and the beginnings of significant house price inflation.

The recession of 2001 saw the bursting of the stock market and dot-com bubbles. However, although investment spending was hit hard, consumer spending was largely untouched, owing to continued household borrowing and continued moderate increases in home prices. Additionally, the financial system was largely unscathed because the stock market bubble involved limited reliance on debt financing.

Yet, despite the relative shallowness of the 2001 recession and aggressive monetary and fiscal stimulus, the economy languished in a second extended bout of jobless recovery. The critical factor was the trade deficit and off-shoring of jobs resulting from the model of globalization that had been decisively implemented in the 1990's. This drained spending, jobs, and investment from the economy, and also damped down wages by creating job insecurity.

The effects are clearly visible in the data for manufacturing employment. Manufacturing employment peaked in March 1998, shortly after the East Asian financial crisis and three years before the economy went into recession. Thereafter, manufacturing never really recovered from this shock and continued losing jobs throughout the most recent expansion (see table 14).

Table 14. US Manufacturing Employment (millions)

1997	1998	1999	2000	2001	2002	2003	2005	2007
17.42	17.56	17.32	17.26	16.44	15.26	14.51	14.32	13.88

Source: *Economic Report of the President, 2009, table B -46.*

The sustained weakness of manufacturing effectively undermined the economic recovery, despite expansionary macroeconomic policy. According to the National Bureau of Economic Research, the recession ended in November 2001, when employment was 130.9 million. Two years later (November 2003) total employment was 130.1 million, a decrease of 800,000 jobs. Over this period, manufacturing lost 1.5 million jobs, and total manufacturing employment fell from 15.83 million to 14.32 million.

The failure to develop a robust recovery, combined with persistent fears that the economy was about to slip back into recession, prompted the Federal Reserve to lower interest rates. Beginning in November 2000, the Fed cut its federal funds rates significantly, lowering it from 6.50 percent to 2.10 percent in November 2001. However, the weakness of the recovery drove the Fed to cut the rate still further, pushing it to 1.00 percent in July 2003, where it was held until June 2004.

Ultimately, the Federal Reserve's low-interest-rate policy succeeded in jump-starting the economy by spurring a housing price boom, which in turn sparked a construction boom. That boom became a bubble, which burst in the summer of 2007. What is important about this history is that the economy needed an asset price bubble to restore full employment, just as it had needed the stock market and dot-com bubbles to restore full employment in the 1990's.

Given the underlying structural weakness of the demand-generation process, which had been further aggravated by flawed globalization, a bubble was the only way back to full employment. Higher asset prices were needed to provide collateral to support borrowing that could then finance spending.

A housing bubble was particularly economically effective for two reasons. First, housing ownership is widespread so the consumption wealth effects of the bubble were also widespread. Second, higher house prices stimulated domestic construction employment by raising prices above the cost of construction. Moreover, the housing bubble was a form of "house price populism" that benefitted incumbent politicians who could claim credit for the fictitious wealth created by the bubble.

Some (Taylor, 2009) are now blaming the Federal Reserve for the bubble, but the reality is that it felt compelled to lower interest rates for fear of the economy falling back into recession. Additionally, inflation – which is the signaling mechanism the Federal Reserve relies on to assess whether monetary policy is too loose – showed no indication of excess demand in the economy. Indeed, all the indications were of profound economic weakness. Finally, when the Federal Reserve started raising the federal funds interest rates in mid-2004, the long-term rate that influences mortgages changed little. In part this may have been due to the Japan interest rate carry-trade and recycling of foreign country trade surpluses back to the United States, but the greater part was likely reflection of underlying weak economic conditions.

This reality is confirmed by a look back at the expansion of 2001-2007 compared to other expansions. By almost all measures it ranks as the weakest business cycle since World War II. Table 15 shows "trough to peak" and "peak to peak" measures of GDP growth, consumption growth, investment spending growth, employment growth, manufacturing employment growth, profit growth, compensation growth, wage and salary growth, change in the unemployment rate, and change in the employment/population ratio of this business cycle relative to other postwar cycles. The 2001-2007 cycle ranks worst in seven of the ten measures, and second worst in two measures. If the comparison is restricted to the four cycles lasting 27 quarters or more, the 2001-2007 cycle is worst in nine of ten measures, and best in one measure – profit growth. This weak performance occurred despite a house price and credit bubble of historic proportions. It is clear evidence of the structural weakness of the U.S. macroeconomic model and why a bubble was needed to sustain growth.

Table 15. Rank of Last Business Cycle Relative to Cycles since World War II (1 = best; 10 = worst)

	Expansion only (1 = best, 10= worst)	**Full Cycles (1 = best, 10= worst)**	**Full Cycles (1 = best, 4= worst)**
	All	**All**	**Cycles lasting more than 27 quarters**
Number of Cycles	10	10	4
Rank of 2001-07 cycle			
GDP growth	10	8	4
Consumption growth	9	9	4
Investment growth	10	9	4
Employment growth	10	9	4
Manufacturing employment growth	10	10	4
Profit growth	4	2	1
Compensation growth	10	9	4
Wage and salary growth	10	9	4
Change in unemployment rate	9	5	4
Change in Emp/population ratio	10	10	4

Source: Josh Bivens and John Irons, "A Feeble Recovery: The Fundamental Economic Weaknesses of the 2001-07 Expansion," EPI Briefing Paper No. 214 (Washington, DC: Economic Policy Institute, December 2008); and author's calculations.

V. CONCLUSION: WHERE NEXT?

Recognizing the role of macroeconomic factors in the current crisis raises critical questions. Deregulation and massive unsound lending by financial markets are important parts of the crisis story, but they were not the ultimate cause of the crisis. Instead, they facilitated the bubble and are better understood as being part of the neoliberal model, their function being to support demand growth based on debt and asset price inflation.

At this stage, repairing regulatory and microeconomic incentive failures can limit future financial excess. However, it will do nothing to address the problems inherent in the neoliberal U.S. growth model and pattern of global economic engagement. Worse, focusing on regulation diverts attention from the bigger macroeconomic challenges by misleadingly suggesting that regulatory failure is the principal cause of the crisis.

The case for paradigm change has yet to be taken up politically. Those who built the neoliberal system remain in charge of economic policy. Among mainstream economists who have justified the neoliberal system, there has been some change in thinking when it comes to regulation, but there has been no change in thinking regarding the prevailing economic paradigm. This is starkly illustrated in the debate in the United States over globalization, where the evidence of failure is compelling. Yet, any suggestion that the United States should reshape its model of global economic engagement is brushed aside as “protectionism.”, which avoids the real issue and shuts down debate.

That leaves open the question of what will drive growth once the economy stabilizes. The postwar growth model based on rising middle-class incomes has been dismantled, while the neoliberal growth model has imploded. Moreover, stripping the neoliberal model of financial excess by means of regulation and leverage limits will leave it even more impaired. The U.S. economy needs a new growth model.

The outlines of that new model are easy to see. The most critical need is to restore the link between wages and productivity growth that drove the 1945-1980 virtuous circle model of growth. This will require creating a new policy box that takes workers out and puts corporations in.

The outlines of such a box are easy to envisage and involve restoration of worker bargaining power in labor markets through strengthened unions, a higher minimum wage, and stronger employee protections; restoration of full employment as a macroeconomic policy objective; restoration of the legitimacy of regulation and increased government provision of public goods; a new international economic accord that addresses the triple hemorrhage problem created by the flawed model of global economic engagement; and reform of financial markets and corporate governance that ensures markets and corporations work to promote national economic well-being.

While the economics are clear, the politics are difficult, which partially explains the resistance to change on the part of policymakers and economists aligned with the neoliberal model. The neoliberal growth model has benefitted the wealthy, while the model of global economic engagement has benefitted large multinational corporations. That gives these powerful political interests, with their money and well-funded captive think tanks, an incentive to block change.[18]

Judging by its top economics personnel, the Obama administration has decided to maintain the system rather than change it. The administration may yet manage to create another bubble, this time probably an interest-rate bubble in Treasury bonds that will weakly jump-start the borrowing cycle one more time. However, that will not fix the underlying structural problem, and delay may make its resolution more difficult by creating new financial facts in the form of more debt. Most importantly, even if the neoliberal model is revved up one more time, it will not deliver shared prosperity because it was never constructed to do so.

The bottom line of macroeconomic failure rooted in America's flawed economic paradigm is the ultimate cause of the financial crisis and Great Recession. Financial market failure played a role in the making of the crisis, but its role was part of a larger drama concerning the flawed paradigm. Now, there is a grave danger that policymakers will only focus on financial market reform and ignore reform of America's flawed economic paradigm. In that event, though the economy may stabilize, it will likely be unable to escape the pull of economic stagnation. That is because stagnation is the logical next stage of the existing paradigm.

END NOTES

[1] This paper was originally released in July 2009 by the New America Foundations' Economic Growth Program whose permission to use it is gratefully acknowledged. An abbreviated version of that paper was published in Empirica, Vol. 38(1), 2011.

[2] The 1950's are an exception because of the Korean War (June 1950-July 1953), which ratcheted up manufacturing employment and distorted manufacturing employment patterns.

[3] Defenders of the neoliberal paradigm argue that manufacturing has prospered and the decline in manufacturing employment reflects healthy productivity trends. As evidence, they argue that real manufacturing output has increased and remained fairly steady as a share of real GDP. This reflects the fact that manufacturing prices have fallen faster than other prices. However, this is due in part to hedonic "quality adjustment" statistical procedures that count improved information technology embodied in manufactured goods as increased manufacturing output. It is also due to increased use of cheap imported components that are not subject to the same hedonic statistical adjustments. As a result, the real cost of imported inputs is understated, and that has the effect of making it look as if real manufacturing output is higher. The stark reality is that the nominal value of manufacturing output has fallen dramatically as a share of nominal GDP. The United States has also become more dependent on imported manufactured goods, with imported manufactured goods making up a significantly increased share of total manufactured goods purchased. Moreover, U.S. purchases of manufactured goods have risen as a share of total U.S. demand, indicating that the failure lies in U.S. production of manufactured goods which has lost out to imports (Bivens 2004).

[4] Much attention is devoted to the issue of excessive CEO pay, and CEO pay is the poster child for the problem of income inequality. However, fixing CEO pay will not fix the problem. Instead, there is a deeper problem regarding the overall pay structure. That problem implicates far more than just the top one percent of households, and for that reason it will be politically difficult to remedy.

[5] Palley (1998) analyzes in detail how economic policy has impacted income distribution, unemployment, and growth. The metaphor of a box is attributable to Ron Blackwell of the AFL-CIO.

[6] There is a deeper political economy behind the neoliberal box that has been termed "financialization" (Epstein, 2001; Palley, 2008a). The policy agenda embedded in the box is driven by financial markets and corporations who are now joined at the hip, with corporations pursuing a narrow financial agenda aimed at benefiting top management and financial elites.

[7] See International Monetary Fund, "People's Republic of China: Staff Report for the 2006 Article IV Consultation" (Washington, DC, 2006).

[8] Full employment is difficult to define. One definition is wages are rising with productivity because workers are scarce and jobs plentiful. Using that definition, over the last the thirty years the U.S. has only enjoyed full employment for a brief period at the end of the 1990's.

[9] S&P/Case-Shiller index data is only available from 1987.

[10] This means the crisis is not a "pure" Minsky (1993) crisis. Minsky saw crises as the result of endogenous financial instability that developed over years. However, the current crisis is a crisis of the neoliberal model. That model fostered financial instability as a way of sustaining itself. Consequently, when the crisis hit it took on the appearance of a classic Minsky crisis but its real roots lie in the neoliberal model.

[11] It cannot be overemphasized that the policies adopted by Treasury Secretaries Robert Rubin and Lawrence Summers reflected the dominant economic paradigm. As such, Rubin and Summers had the support of the majority of the U.S. political establishment, the IMF and the World Bank, Washington's premier think tanks, and the economics profession.

[12] China had already gone this route with a large exchange rate devaluation in 1994. Indeed, there is reason to believe that that devaluation contributed to hatching the East Asian financial crisis by putting other East Asian economies under undue competitive pressures and diverting foreign investment from them to China.

[13] The strong dollar policy was also politically popular, constituting a form of exchange rate populism. Boosting the value of the dollar increased the purchasing power of U.S. consumers at a time when their wages were under downward pressure due to the neoliberal model. Households were under pressure from globalization, yet at the same time they were being given incentives to embrace it. This is why neoliberalism has been so hard to tackle politically.

[14] Blinder and Yellen (2001). To the extent there was concern in the Clinton administration about manufacturing, it was about the hardships for workers regarding job dislocations. Additionally, there was political concern that produced some sweet talk (i.e., invitations to policy consultations) aimed at placating trade unions. However, there was no concern that these outcomes were due to flawed international economic policy. Not only did this policy failure contribute to eventual disastrous economic outcomes, it may well have cost Vice President Al Gore the 2000 presidential election. The

Clinton administration's economic advisers may have downplayed the significance of manufacturing job loss but blue-collar voters in Ohio did not.

[15] *OECD Observer* 2003.

[16] See Dooley, Folkerts-Landau and Garber (2003); Dooley, Folkerts-Landau, and Garber (2004a); and Dooley, Folkerts-Landau, and Garber (2004b).

[17]For a critique of the New Bretton Woods hypothesis that explains why it was unsustainable see Palley (2006a).

[18] Even domestic manufacturers who are harmed by the international economic agenda may abstain from opposing that agenda because they are net beneficiaries from the overall neoliberal model.

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