



Working Paper No. 693

Euroland in Crisis as the Global Meltdown Picks Up Speed

by

Dimitri B. Papadimitriou and L. Randall Wray
Levy Economics Institute of Bard College

October 2011

The Levy Economics Institute Working Paper Collection presents research in progress by Levy Institute scholars and conference participants. The purpose of the series is to disseminate ideas to and elicit comments from academics and professionals.

Levy Economics Institute of Bard College, founded in 1986, is a nonprofit, nonpartisan, independently funded research organization devoted to public service. Through scholarship and economic research it generates viable, effective public policy responses to important economic problems that profoundly affect the quality of life in the United States and abroad.

Levy Economics Institute
P.O. Box 5000
Annandale-on-Hudson, NY 12504-5000
<http://www.levyinstitute.org>

ABSTRACT

Yet another rescue plan for the European Monetary Union (EMU) is making its way through central Europe, but no one is foolish enough to believe that it will be enough. Greece's finance minister reportedly said that his nation cannot continue to service its debt, and hinted that a 50 percent write-down is likely. That would be just the beginning, however, as other highly indebted periphery nations will follow suit. All the major European banks will be hit—and so will the \$3 trillion US market for money market mutual funds, which have about half their funds invested in European banks. Add in other US bank exposure to Europe and you are up to a potential \$3 trillion hit to US finance. Another global financial crisis is looking increasingly likely.

We first summarize the situation in Euroland. Our main argument will be that the problem is not due to profligate spending by some nations but rather the setup of the EMU itself. We then turn to US problems, assessing the probability of a return to financial crisis and recession. We conclude that difficult times lie ahead, with a high probability that another collapse will be triggered by events in Euroland or in the United States. We conclude with an assessment of possible ways out. It is not hard to formulate economically and technically simple policy solutions for both the United States and Euroland. The real barrier in each case is political—and, unfortunately, the situation is worsening quickly in Europe. It may be too late already.

Keywords: Sovereign Debt; PIIGS; European Monetary Union; Global Financial Crisis; Debt Relief; Sectoral Balances; Budget Deficits; Fisher Debt Deflation; Sovereign Currency; Greek Default

JEL Classifications: E32, E42, F02, F33

INTRODUCTION

Yet another rescue plan for the European Monetary Union (EMU) is making its way through central Europe, raising the total funding available to the equivalent of \$600 billion. Germany agreed to raise its contribution to the fund by more than \$100 billion equivalent. No one is foolish enough to believe that will be enough.

Greece's Finance Minister reportedly said that his nation cannot continue to service its debt and hinted that a 50 percent write-down is likely. Greece's sovereign debt is 350 billion euros, so losses to holders would be 175 billion euros. That would be just the beginning, however.

Nouriel Roubini has argued that the crisis will spread from Greece and increase the possibility that both Italy and Spain could be forced out, unless European leaders greatly increase the funds available for bailouts. The *Sunday Telegraph* has suggested that as much as 1.75 trillion sterling could be required (Hennessy 2011). To put that in perspective, the US bailout of its financial system after 2008 came to \$29 trillion. The 1.75 trillion figure will almost certainly prove to be wishful thinking if sovereign debt goes bad. All the major European banks will be hit—and so will the \$3 trillion US money market mutual funds, which have about half their funds invested in European banks. Add in other US bank exposure to Europe and you are up to a potential \$3 trillion hit to US finance. (That probably explains why the US has suddenly taken a keen interest in Euroland, with the Fed ramping up lending to European financial institutions.)

Financial headwinds are poised to hit the US directly, too. Commodities prices have finally begun their inevitable downward trajectory as the biggest speculative bubble in human history bursts. Falling prices will lead to margin calls, forcing speculators to sell not only commodities, but other “uncorrelated” assets such as equities.

The US real estate sector heads into the fall with no end to its crisis. No jobs are being created, and the latest GDP figures show growth barely above 1 percent on an annual basis. While there are some stirrings in Washington, near-gridlock over the budget will keep any federal stimulus package underfunded. Meanwhile, state and local governments continue to cut, reeling from plummeting tax revenue.

While falling prices at the pump will provide some relief to homeowners, we just received new data on health insurance costs, which are exploding right on cue as insurers take advantage of “Obamacare,” that forces every American to turn wages over to the insurance industry. With captive customers why not boost prices?

Finally, the big banks are increasingly losing their fraud cases—paying big fines and settlements for securities fraud. They are even beginning to lose in foreclosure cases, and since the vast majority of mortgages made since 2000 involved some kind of fraud (if not lender fraud, then at least property recording fraud perpetrated by the industry’s monster, the Mortgage Electronic Registration System), there could be big losses there, too. It will not take much to spark another US financial crisis on a Lehman and Bear scale.

We first summarize the situation in Euroland. We then turn to US problems, assessing the probability of a return to financial crisis and recession. We conclude that difficult times lay ahead, with a high probability that another collapse will be triggered by events in Euroland or in the US, and provide an assessment of possible ways out.

THE VIEW FROM EUROLAND

It is becoming increasingly clear that authorities are merely trying to buy time to figure out how they can save the core French and German banks against a cascade of likely sovereign defaults. Meanwhile, they keep a stiff upper lip and demand more blood in the form of periphery austerity. They know this will do no good at all. Indeed, it will increase the eventual costs of the bailout while stoking North-South hostility. Presumably leaders like Chancellor Merkel are throwing red meat to their base for purely domestic political reasons. If the EMU is eventually saved, however, the rancor will make it very difficult to mend fences.

There is no alternative to debt relief for Greece and other periphery nations. Even German Chancellor Merkel reportedly told her parliamentarians that she could not exclude the possibility of a Greek default—even as she warned Greece that the rescue package approved last July would be reviewed if Athens failed to meet deficit reduction targets (Peel 2011). She has also said that all of her economic advisors recommend debt relief for Greece, but insisted that debt relief just encourage other highly indebted nations to demand similar treatment. Thus, she

prefers to demand austerity, and if that forces default, so be it. There are even some rumors that Germany will be the first nation to quit the EMU—taking a pre-emptive strike rather than making concessions to nations it sees as fiscally irresponsible.

In other words, Europe's leaders believe debt relief must be tied to austerity that will inflict more punishing pain. Remarkably, even as leaders put together yet another rescue package, the EU Parliament voted to make sanctions more automatic on countries that exceed Maastricht criteria debts and deficits. Previously, although penalties were threatened they were never actually imposed. Karel Lannoo, chief executive officer of the Centre for European Policy Studies in Brussels stressed that the purpose of the new system was “to show Germany that economic governance is being improved and to help overcome German concerns about insufficient accountability in this area at the European level” (Stearns 2011). (Amusingly, only four of the 27 EU nations meet the Maastricht deficit criteria: Sweden, Finland, Estonia, and Luxembourg. Even Germany will have to pay the fines! That is particularly ironic as it was Germany that originally got the rules relaxed because its own slow growth period had caused it to chronically exceed Maastricht limits on deficits and debts. And it is all the more ironic that loosening the rules allowed Greece to build to the higher debt ratios that Germany now admonishes [Liu 2011].)

Indeed, the picture of the debtors that the Germans, especially, want to paint is one of profligate consumption fuelled by runaway government spending by Mediterraneans. The only solution is to tighten the screws. As Finance Minister Wolfgang Schäuble put it: “The main reason for the lack of demand is the lack of confidence; the main reason for the lack of confidence is the deficits and public debts which are seen as unsustainable... We won't come to grips with economies deleveraging by having governments and central banks throwing—literally—even more money at the problem. You simply cannot fight fire with fire” (Giles 2011). You have to fight the headwinds with more growth-killing glacial ice.

A leaked letter from European Central Bank (ECB) President Trichet demanded that Italy move more quickly to a balanced budget (Reuters 2011). It also urged adoption of the neoliberal's favorite package of policies, including “full liberalization of local public services,” “a thorough review of the rules regulating the hiring and dismissal of employees,” “administrative efficiency,” and “structural reforms.” Following Rahm Emanuel's advice, the

EU's neoliberals are using the crisis not only to impose austerity but also to roll back social legislation, while privatizing as much of the economy as possible. For this purpose, it is extremely important that they move the focus away from problems with the private sector (especially with the excesses perpetrated by financial institutions that created the global financial crisis) and to supposed profligacy by government, both in terms of budget deficits but also through coddling of the population.

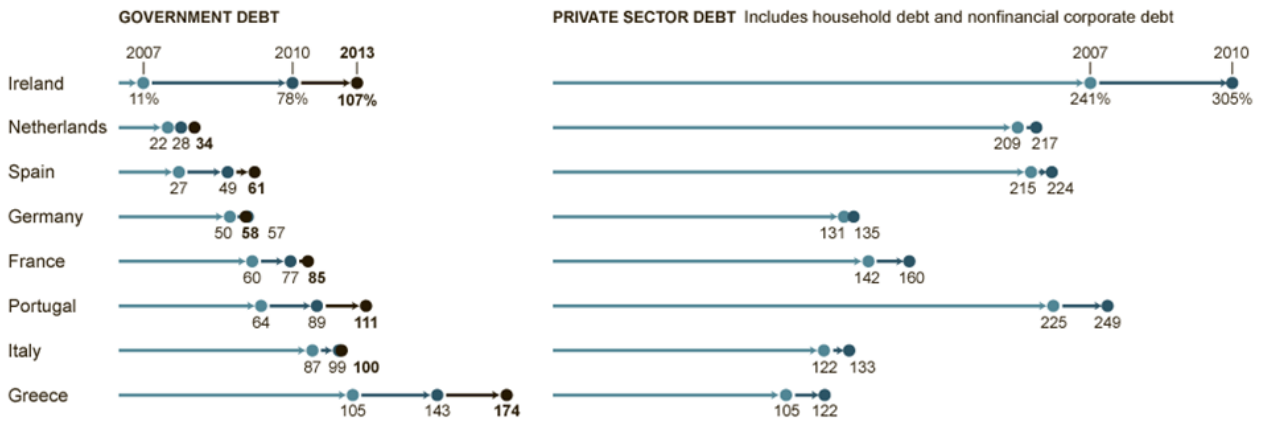
HOW DID EUROLAND GET INTO SUCH A MESS?

While the story of fiscal excess is a stretch even in the case of the Greeks, it certainly cannot apply to Ireland and Iceland, or even to Spain. In the former cases, these nations adopted the neoliberal attitude toward banks that was pushed by policymakers in Europe and America, with disastrous results. The banks blew up in a speculative fever and then expected their governments to absorb all the losses.

Further, as Ambrose Evans-Pritchard (2011) argues, even Greece's total outstanding debt (private plus sovereign) is not high: 250 percent of GDP (versus nearly 500 percent in the US); Spain's government debt ratio is just 65 percent of GDP. And while it is true that Italy's government debt ratio is high, its household debt ratio is very low by Western standards.

Figure 1 presents net debt as a percentage of GDP for a number of EMU nations. First, it is obvious that for most of them, the economic crisis itself caused significant growth of government debt ratios. Before the crisis, only Greece and Italy significantly exceeded the 60 percent ratio. However, all of them had private sector debt ratios above 100 percent by the time the crisis hit—and half had ratios above 200 percent. To label this a sovereign debt crisis is rather strange. Remarkably, Italy and Greece have the lowest private debt ratios—which is not consistent with the view that consumers in those nations are profligate. Now, as we discuss below, it is not surprising that these two nations have this combination of relatively high government debt ratios and low private debt ratios—these are related through the “three sectors identity.” But this figure does cast some doubt on the favored story about sovereign excesses in the periphery.

Figure 1. Net Debt as a Percentage of GDP



Note: Government figures are I.M.F. calculations of net debt of general governments, after subtracting monetary assets held by governments. Sources: International Monetary Fund; European Central Bank (via Rebecca Wilder)

If you take the West as a whole, what you find is that over the past 40 years there has been a long-term upward growth trend of debt relative to GDP, from just under 140 percent of GDP in 1980 to almost 320 percent today. It is true that government has contributed to that, growing from some 40 percent of GDP to about 90 percent—a doubling to be sure. But the private sector’s debt ratio grew from a bit over 100 percent to somewhere around 230 percent of GDP.

In sum, to label this a sovereign debt problem is quite misleading. The dynamics are surely complex but it is clear that there is something that is driving debt growth in the developed world that cannot be reduced to runaway government budget deficits. Nor does it make sense to point fingers at Mediterraneans since it is (largely) the English-speaking world of the US, UK, Canada, and Australia that has seen some of the biggest increases of household debt—the total US debt ratio is 500 percent, of which household debt alone is 100 percent, and financial institution debt is another 125 percent of GDP.

We will not go into it here, but what Minsky called “money manager capitalism” explains a large increase of financial assets (the flip side of the debt) under professional management. The long postwar boom helped to build up pension funds and other financial wealth seeking high returns. That led to pressure to open up the globe to financial capital flows, and that in turn generated a series of bubbles and busts across economies, from the developing world, to Asia, to the US, and finally to Europe. At the same time, it generated record inequality

and to the extension of what many call “financialization” to every walk of life. So, growing financial wealth is the sunny side of money manager capitalism, but the dark side is growing debt and inequality.

Indeed, there is a nearly unacknowledged (except around the Levy Institute) Godleyan identity that shows the *ex post* relations (without necessarily saying anything about the complex endogenous dynamics): the domestic private balance equals the sum of the domestic government balance less the external balance. To put it succinctly, if a nation runs a current account deficit, then its domestic private balance (households plus firms) equals its government balance less that current account deficit. To make this concrete, when the US runs a current account deficit of 5 percent of GDP and a budget deficit of 10 percent of GDP, its domestic sector has a surplus of 5 percent; or if its current account deficit is 8 percent of GDP and its budget deficit is 3 percent, then the private sector must have a deficit of 5 percent—running up its debt.

A big reason why much of the developed world has had a growth of its outstanding private and public sector debts relative to GDP is because we have witnessed the rise of current account surpluses in Brazil, Russia, India, and China (and others, especially in South East Asia)—matched by current account deficits in the developed Western nations taken as a whole. Hence, developed country budget deficits have widened even as their private sector debts have grown. By itself, this is neither good nor bad. But over time, the debt ratios and hence debt service commitments of Western domestic private sectors got too large to service out of income flows. This was a major contributing factor to the global financial crisis (GFC).

Our Austerians see the solution in belt-tightening, especially by Western governments. But that tends to slow growth, increase unemployment, and hence increase the burden of private sector debt. The idea is that this will reduce government debt and deficit ratios, but in practice that may not work due to impacts on the domestic private sector. Tightening the fiscal stance can occur in conjunction with reduction of private sector debts and deficits only if this somehow reduces current account deficits. Yet many nations around the world rely on current account surpluses to fuel domestic growth and to keep domestic government and private sector balance sheets strong. They therefore react to fiscal tightening by trading partners—either by depreciating their exchange rates or by lowering their costs. In the end, this sets off a sort of

modern mercantilist dynamic that leads to race to the bottom policies that few Western nations can win.

Germany, however, has specialized in such dynamics and has played its cards well. It has held the line on nominal wages while greatly increasing productivity. As a result, in spite of reasonably high living standards it has become a low cost producer in Europe. Given productivity advantages, it can go toe-to-toe against non-euro countries in spite of what looks like an overvalued currency. For Germany, however, the euro is significantly undervalued—even though most euro nations find it overvalued. The result is that Germany has operated with a current account surplus that allowed its domestic private sector and government to run deficits that were relatively small. Hence, Germany's overall debt ratio is at 200 percent of GDP, approximately 50 percent of GDP lower than the eurozone average.

Not surprisingly, the Godleyan balances identity hit the periphery nations particularly hard, as they suffer from what is for them an overvalued euro and lower productivity than Germany enjoys. With current accounts biased toward deficits it is not a surprise to find that the Mediterraneans have bigger government and private sector debt loads.

Now, if Europe's center understood balance sheets, it would be obvious that Germany's relatively "better" balances rely to some degree on the periphery's relatively "worse" balances. If each had separate currencies, the solution would be to adjust exchange rates so that our debtors would have depreciation and Germany would have an appreciating currency. Since within the euro this is not possible, the only price adjustment that can work would be either rising wages and prices in Germany or falling wages and prices on the periphery. But ECB, Bundesbank, and EU policy more generally will not allow significant wage and price inflation in the center. Hence, the only solution is persistent deflationary pressures on the periphery. Those dynamics lead to slow growth and hence compound the debt burden problems.

We have known since the time of Irving Fisher that deflation imposes tremendous costs. The biggest cost is born by debtors, as the "real" value of their nominally denominated debts increases. It is for this reason that deflation is a disease to be avoided. It typically results in debt deflation dynamics with debtors forced to default on commitments. Outside deep recessions or depressions, price and wage deflation is a rare event—and an outcome that policy purposely tries to avoid. But if Germany refuses to inflate and if Greece and other periphery nations cannot

depreciate their currencies, then debt deflation dynamics are the only way to avoid increasingly noncompetitive wages and prices.

Those noncompetitive wages and prices almost guarantee current account deficits that in turn, by identity, guarantee rising debt—either by the government or by the private sector. And if debt grows faster than GDP, the debt ratio rises. Note that these are statements informed by identities; they are not meant to be policy statements. But policy cannot avoid identities. Reduction of deficits and debts in periphery nations requires changes to balances outside the periphery. If we want Greece or Ireland to lower debt ratios, they must change current account balances. That in turn requires that some nations reduce their current account surpluses. For example, if Germany would be willing to run large current account deficits, it would be easier for periphery nations to reduce domestic deficit spending.

PROPOSED SOLUTIONS TO THE EURO PROBLEM

Rather than doing the obvious, Europe's center insists on underfunded bailouts plus austerity imposed on the periphery. This is supposed to keep indebted nations in the EMU, on the belief that with sufficient fiscal rectitude they might become fit for living within Maastricht guidelines. The problem is that they are left with too much debt, and at the same time they face German intransigence at changing the internal dynamics. Austerity on the periphery will not improve deficit ratios (of the private and government sectors) unless the external accounts improve. While there might be some wage and price level that would allow a Greece or a Portugal to compete with German workers, the problem is that GDP in these nations would be so depressed that government deficits would likely be worse than they are today—and default on both government debt and private debt would be virtually assured.

Given these dynamics, debt relief—which might take the form of default—is the only way that Greece, Ireland, Portugal, and perhaps Spain and Italy, can remain within the EMU. But it is not at all clear that the nuclear option—dissolution—will be avoided. Even Very Serious People are providing analyses of a Euroland divorce; with resolution ranging from a complete break-up to a split between a Teutonic Union embracing fiscal rectitude with an overvalued currency, and a Latin Union with a greatly devalued currency. In a recent poll, global investors put a 72 percent probability on a country leaving the euro within five years (40

percent think it will occur within a year), and three-fourths expect a recession in Euroland within the next 12 months—PIMCO thinks the recession has already begun (Kennedy 2011).

A recent report from Credit Suisse dares to ask: what if there is a disorderly break-up of the EMU, with the narrowly defined PIGS (Portugal, Ireland, Greece, and Spain) abandoning the euro and each adopting its own currency? The report paints a bleak picture because the currencies on the periphery would depreciate, raising the cost of servicing euro debt and leading to a snowball of sovereign defaults across highly indebted euro nations.

The report assumes Italy does not default, but if it did, losses on sovereign debt would be much higher. With the assumption that Italy remains on the euro and manages to avoid default, total losses to the core European banks would be 300 billion euros and 630 billion euros for the periphery nations' banks (excluding Italy), while the ECB's losses would be 150 billion. (Note that this is near to the rumored bailout costs of 1.75 trillion pounds sterling—without including any knock-on costs of a crisis and recession.)

Looking to previous “orderly” defaults in this scenario, GDP would fall by 9 percent. With the weaker nations gone, the euro used by the stronger nations would appreciate, hurting their export sectors. That would increase the pressures for trade wars—and for a Great Depression “2.0.” The report puts this probability at an optimistic 10 percent.

In his recent interesting piece, Ambrose Evans-Pritchard (2011) comes very close to getting it right, in our view. The problem, he asserts, is not “sovereign” euro debt, but rather is “the euro itself”; a “machine for perpetual destruction.” He rightly points to the competitive gap between the North and South, and argues that the euro is overvalued in the South and undervalued for Germany. He also points to the German delusion that its trade surpluses are “good” but the South's trade deficits are “bad” balances. But obviously, they are linked. He discounts scare talk about the catastrophic costs of a breakup, and argues that the benefits of a North-South split could be significant. If the “Latin tier” could reboot with a significantly devalued (new) currency, it could become competitive. While our take is slightly different, we believe Evans-Pritchard is certainly on the right track, and his criticism of the German center of Europe is on-target.

An entirely different solution is offered by Jacques Delpla and Jakob von Weizsäcker (2011), which would instead retain the union but pool a portion of each member's government debt—equal to a Maastricht criteria 60 percent of GDP. This would be allocated to a “blue bond” classification, with any debt above that classified as “red bond.” The idea is that the blue bonds would be low risk, with holders serviced first. Holders of red bonds would only be paid once the blue bonds are serviced. About half the current EMU members would have quite small issues of red bonds; about a quarter would not even be close to their limit on blue bond issues at current debt ratios.

The proposal draws on the US experiment with “tranching” of mortgages to produce “safe” triple-A mortgage-backed securities protected by “overcollateralization,” since the lower-grade securities supposedly took all the risks. Well, that did not turn out so well! The idea is that markets will discipline debt issues, since blue bonds will enjoy low interest rates and red bonds will pay higher rates. Again, the US experience proves that markets are far too clever for that—if anything market discipline did precisely the opposite. The risks on the lower tranches were underestimated and vastly underpriced. In a search for yield, financial institutions held onto a lot of the trash. And the triple-A tranches were much too big (85 percent of the total pool), meaning they were not overcollateralized at all. Finally, to increase yield, the lower tranches were pooled into credit default options (CDOs) with triple-A tranches, and then the worst of that was used in CDOs-squared, and so on. And all of this behavior was perfectly aligned with “market discipline,” as everyone in the home finance food chain sought short-term rewards.

Still, we are not completely against the proposal. If the full faith and credit of the entire EMU (including most importantly that of the ECB) were put behind the blue bonds, and substantial nonmarket discipline (i.e. regulations) were put on the red bonds, the scheme would have some potential. More importantly, it directs us toward a real solution—a topic examined below.

Our colleagues Yanis Varoufakis and Stuart Holland (2011) have issued a similar proposal. Briefly, the ECB would buy member sovereign debt at a volume of up to 60 percent of a nation's GDP. These would be held as Eurobonds, and the debtors would continue to service them, albeit at a lower interest rate to reflect the ECB's lower cost of issuing its own liabilities. By moving so much debt to the ECB, nations would easily meet the Maastricht criteria—which

would be applied only to the remaining debt outstanding in markets. The ECB, in turn, could sell Eurobonds to provide liquid and safe euro-denominated debt to markets; attracting foreign investors, especially central banks and sovereign wealth funds. That would help to finance the European Economic Recovery Programme, with the ECB issuing Eurobonds to provide new funding to the European Investment Bank. Hence, the authors not only address the current insolvency problems but also tackle the problem of recovery. Our own list of alternative solutions summarized below includes issue of bonds backed by the ECB.

A popular proposal is to take the European Financial Stability Facility's (EFSF) funding as capital to create a sort of structured investment vehicle (SIV) (again following the instructive example of shenanigans by US mortgage securitizers!) that buys sovereign debt and issues its own bonds secured by the now nearly \$600 billion bailout fund serving as equity. If leveraged, total funding available to buy trashy government debt could be several trillions of euros. But as we found out during the US crisis in mortgage-backed securities, leverage is great on the way up but very painful on the way down. When a crisis hits, the SIV cannot continue to finance its position, so it must sell assets into declining markets. If leverage is eight to one, its capital is quickly wiped out by a fairly small reduction (12 percent) of the value of its assets; problems are reinforced by price reductions that lower capital and reduce willingness of lenders to hold the SIV's debt.

So this proposal only works if: a) the SIV buys the assets at fire-sale prices now, so that b) the risks of further large price declines are remote. If the SIV's own debt is long-term, it does not need to worry about refinancing its position, but that will make the initial financing more expensive, since the risk is shifted to creditors. One of the reasons that the American SIVs seemed to "work" is that they relied on very short-term, and thus cheap, finance. But of course that permitted a run out of the SIVs as soon as the crisis hit. In the case of this European proposal it is difficult to see why lenders to the SIVs would prefer to get stuck in bonds that effectively place highly-leveraged bets on troubled assets. Anyone who wants to take a chance on Greek debt can just go out and buy it. As we now know, diversifying across trashy subprime mortgages did no good—they were all risky and the risks were highly correlated, because when real estate prices stopped rising the charade ended. Similarly, the fate of EMU nations is highly interconnected—with the exception of those with little debt, plus Germany, and possibly France. If one of the dominoes falls, there will be a run out of the other dominoes.

THE VIEW FROM AMERICA

The problem with the setup of the EMU was the separation of nations from their currencies—as we have long argued, along with Charles Goodhart, Warren Mosler, and Wynne Godley. It was a system designed to fail. It would be like a United States with no Washington—with each state fully responsible not only for state spending, but also for social security, health care, natural disasters, and bailouts of financial institutions within its borders. In the US, all of those responsibilities fall under the purview of the issuers of the national currency—the Fed and the Treasury. In truth, the Fed must play a subsidiary role because, like the ECB, it is prohibited from directly buying Treasury debt. It can only lend to financial institutions and purchase government debt in the open market. It can help to stabilize the financial system, but can only lend, not spend, dollars into existence. The Treasury spends them into existence. When Congress is not preoccupied with kindergarten-level spats over debt ceilings that arrangement works almost tolerably well—a hurricane in the Gulf leads to Treasury spending to relieve the pain. A national economic disaster generates a Federal budget deficit of 5 or 10 percent of GDP to counteract recessionary forces.

That cannot happen in Euroland, where the European Parliament's budget is less than 1 percent of GDP (approximately \$100 billion). As we argued long ago, the first serious Europe-wide financial crisis would expose the flaws. And it did.

And things are made much worse because Euroland can neither turn to its center for help, nor can it any longer rely on the rest of the world. The economies of the West (at least) are stumbling. In addition to the residual (and growing) problems in US real estate, the commodities speculative bubble appears to have been pricked. Since fools rush in on the belief they can take advantage of sale prices, the air will not rush out quickly. But with commodities prices at 2, 3, and even 4 standard deviations away from the mean, the general trend will be down. That leads to vicious cycle margin calls, which will have knock-on effects, as those with long positions in commodities have to sell out other asset classes. The stock market will likely be next to falter—and there is plenty of reason to sell bank stocks, anyway.

US and European banks are probably already insolvent. When Greece defaults and the crisis spreads to the periphery, this will become more obvious. The smaller US banks are in

trouble because of the economic crisis. However, the biggest banks that caused the crisis are still reeling from their mistakes during the run-up to the crisis. In our view, they were already insolvent when the GFC hit, and are still insolvent. Policy makers have pursued an “extend and pretend” approach to hide the insolvencies. However, the sorry state of these banks will be exposed when the next crisis begins to spread. It is looking increasingly likely that the opening salvo will come from Europe, although it is certainly possible that it could come from problems at Bank of America or Citigroup or Morgan Stanley.

Let us look at the reasons to doubt that the “big six” are already solvent, and the reasons to make the case that it will not take much to push the US back into another financial crisis.

1. The economy is tanking. Real estate prices are not recovering. Indeed, they continue to fall on trend. Few jobs are being created. Defaults and delinquencies are not improving. GDP growth is falling.

Household debt as a percentage of GDP is only down from 100 percent to 90 percent. While declining debt ratios are good, it is still too much to service. Consumer debt fell from \$12.5 trillion in 2008 to \$11.4 trillion now. Total US debt remains about five times GDP, and while household borrowing has gone negative, debt loads remain high. Financial institutions are still heavily indebted—mostly to one another (Wray 2011).

At the level of the economy as a whole, it is still a massive Ponzi scheme—one that will collapse sooner or later. Total US debt loads are much higher than the loads across most of Euroland. This is especially true if government debt is removed from the equation (which should be done when talking about the US—since it has a sovereign government that issues its own currency). In comparison, the Europeans are debt pikers. On the one hand, that is not a fair comparison, because for some of the European nations (especially Italy), government debt is the problem, and these are not currency issuers. Instead, they are more like US states, which are currency users. But the point is that the US private sector—which is the sector that matters—remains heavily indebted, while ability to pay has plummeted. Finally, “recovery” of labor markets remains dismal—by far the worst of the postwar period. No real economic recovery can begin without job growth in the neighborhood of 300,000 new jobs per month, and no one is predicting that for years to come.

Most of the household debt is linked to real estate—almost three-quarters. Twenty-two percent of homeowners, 10.9 million, are underwater on their mortgages; 1.6 million are delinquent or in foreclosure processes (Ablan and Goldstein 2011). Banks still have \$700 billion in second lien debt (such as home equity loans). As these are “sloppy seconds,” much of this stuff is worthless. American consumers account for nearly half of the global \$9 trillion of securitized loans (e.g., mortgage-backed securities and so on).

There is another \$4.1 trillion in mortgage debt sold by Fannie and Freddie. The point is that there is still a phenomenal amount of debt linked to a declining US real estate market, and much of that is either directly held by US financial institutions, or will come back to bite them because of extensive layering of debt across the global financial system. And speaking of these linkages, US banks will have to refinance over \$300 billion of maturing debt this year.

Is it not strange that Wall Street has managed to remain largely unaffected? Finance is an intermediate good. It is like the tire that goes on a new Ford automobile. Auto sales are collapsing but somehow tire sales to auto manufacturers are doing just fine? Does that make sense? Banks are making no loans, yet they remain profitable?

2. Not only are the financial institutions *not* doing any of the traditional commercial banking business (lending), they are not doing much of the investment banking business either (remember that the last two remaining investment banks were handed bank charters so that they could scoop up insured deposits as a cheap way to finance their business). How many IPOs have been floated? Corporate debt issues? Not much is happening in those areas. Trading? One of the two investment banks that survived, Morgan Stanley (the sixth largest bank), just released a poor trading outlook blamed on “high costs, historically low interest rates and market volatility that has pushed clients to the sidelines” (LaCapra 2011).
3. Commodities are tanking and equities markets are at best horizontal. Other than making profits by cooking their books, these were the main areas open to banks to make profits since 2008. Both commodities and equities had been doing quite well, climbing back up from the depths of the crisis. This should be put in perspective, however, because at best they only recouped losses incurred in the crisis. Still, those bubbles are now probably over, and losses are going to pile up. It is true that financial institutions hedge their long

positions in commodities with some shorts—but who do they short with? Remember AIG, the insurer of first and last resort: hedges are only as good as counterparties, and counterparties are no better than you are when markets collapse. In a crisis, correlations reach 100 percent—all asset classes collapse together because of the heavy layering and margin calls that force sales of even good assets in portfolios.

4. Hedge funds have not done particularly well over the past couple of years, and yet banks have, so that even though their profits come largely from trading (plus cooking books and reducing loan loss reserves), the banks are far more successful than hedge fund managers at picking winners. Does that make a lot of sense?
5. And, as mentioned above, they are facing all these lawsuits—which requires hiring lawyers, paying fees and fines, and employing robo-signers to falsify documents. In other words, it is costly to continue to fight a growing wave of lawsuits, not only by homeowners but also by deep-pocketed securities holders like PIMCO, the New York Fed, and Fannie and Freddie. The threat of such suits also causes bank stocks to fall, increasing the cost of raising capital.
6. Europe is toast. US bank exposure to Euroland is huge. But US banks are doing just fine? That does not make sense. Indeed, Morgan Stanley is now fighting off rumors that it could lose \$30 billion due to exposure to German and French banks (LaCapra 2011).

As Robert Reich correctly argued (2011), although direct lending by US banks to heavily indebted sovereign European governments is not high, they have exposure of almost \$3 trillion through links to European banks. If, say, Greece defaults, US banks get hurt to the extent that European banks default on their debts. US money market mutual funds (MMMF) are also heavily invested in Euroland—about half of their assets are in short-term European bank IOUs.

Note that MMMFs are essentially uninsured deposits that pretend to be as safe as FDIC-insured deposits—and there are \$3 trillion worth of them (versus about \$6 trillion of insured deposits). When the GFC hit there was a run out of them that threatened to “break the buck”; they were saved by extension of the US government guarantee, which is now illegal according to Dodd-Frank (one of the few gutsy things Congress managed to do—essentially inserting a nuclear bomb into the legislation to ensure that the next GFC will blow Wall Street to

smithereens). One might say “so what, let them fail.” But they lend to US banks—who need to roll over short-term paper bought by the MMMFs. Bank finance will dry up in a run. That is the problem with layering—and the MMMFs are an important link in the finance chain. A problem with the MMMFs is not a 2 or 3 standard deviation event—it is a relatively high probability event that ought to be taken into account when “stress-testing” banks. This is an accident waiting to happen.

In addition, the Fed has become a lender of last resort for Euroland (and, indeed, around the globe). To be sure, the Fed has the ability to create an infinite supply of US dollar reserves through “keystrokes”—its only limit is self-imposed, unless Congress gets involved and tells it to stop. As of September 21, there were \$575 billion in outstanding swaps.

And now even China wants to slow. The Euro toast is cooked. The question now is what Euroland will do about it, and whether the US, UK, and other countries with the ability to avoid a toasting will choose a tastier outcome.

A PATH TO RECOVERY?

Where do we go from here? The US has the fiscal capacity to deal with its problems. Briefly, it needs a three-pronged approach:

1. *Jobs*. The best policy would be to follow the New Deal example with direct job creation programs along the lines of the Works Progress Administration and the Civilian Conservation Corps. I will not go into this in detail because there are so many publications at the Levy Institute that follow Hyman Minsky in promoting the “employer of last resort” or “job guarantee” approach to mitigating the problem of unemployment throughout all phases of the business cycle. If a universal program is not politically feasible, then a smaller scale assault could help (recall that President Carter managed to expand the Comprehensive Employment and Training Act during the late 1970s stagflation). This could entail some combination of federal jobs programs plus something like block grants to states to fund infrastructure and social spending that would create jobs. We must think big, however. We need more than 20 million full time

jobs and the federal government will need to provide the funding for a significant portion of these.

2. *Debt relief.* The number of homeowners underwater will continue to grow. Even after falling by 30 percent, house prices in some parts of the country remain too high. Based on the history of real estate busts in the US since WWII (which had always been regional up to this current bust), it takes many years for prices to rise back to pre-crisis levels. Because the speculative bubble took prices to unprecedented levels, we should not expect that economic “fundamentals” would justify a return to such prices for a decade—maybe even a generation in some regions. So we must learn to live with lower prices and that means that we must write down the mortgage debt.

To make this fair, it must be done for everyone—not just for those who default. That will almost of necessity require a big role for Uncle Sam. Individual banks are not going to do it. We need an honest assessment of real estate values, following clear guidelines, to establish a base for an acceptable mortgage. Let us say that on average, houses will be valued at one-third less than pre-crisis prices. An acceptable mortgage would then be 80 percent of that.

The federal government, working either with the government-sponsored enterprises or with private lenders (a choice will need to be made), would then provide a new mortgage on favorable terms (fixed rate, 30 years), used to retire the outstanding mortgage. Policy will have to be developed to determine how the losses (the difference between the new mortgage and outstanding mortgage debt) would be shared among mortgage originator, servicer, mortgage-backed security holder, and Uncle Sam. Some analysts have proposed clever “claw back” schemes in which these creditors can share with homeowners any capital gains generated as house prices rise. In any event, it is clear that policy direction must come from Washington and the policy will have to be imposed on creditors. Homeowners could choose to participate, or to keep current mortgages. It is important, however, to exclude speculators who bought several houses in the boom. Debt relief should only be for owner-occupied housing.

3. *Resolution of insolvent institutions.* We know from the savings and loan crisis of the 1980s that the costs of eventual resolution explode when insolvent banks are kept open by “extend and pretend” policy. As we learned from the Watergate affair, it is the cover-up that ramps up the illegal activity. If you keep an insolvent bank open and let the same

crooks continue to run it, they have every incentive to rob the place blind. They will pay themselves huge bonuses, slash loan loss reserves, burn documents, and move as much cash to offshore havens as they can, because their institution is already bankrupt. All they have to do is to keep it open and shred evidence until the statute of limitations runs out.

That is why they must be resolved. And note that this is the law: insolvent institutions must be resolved at the least cost to the FDIC. Unfortunately, more than three years after the GFC we still have not done that. And if we do pursue a policy of mortgage relief, with proper accounting of property values and losses, the insolvencies will be exposed. Note that the debt relief is more a matter of recognizing reality than a matter of creating losses for banks. The existing mortgages do not recognize that reality, and carrying them on the books at face value just hides the reality. The losses already exist, and closing the insolvent institutions is the only way to end the charade while at the same time reducing all the incentives to continue the cover-ups and the fraud. It will also lead to a stronger financial system, with smaller institutions and less concentration of economic power.

Closing the biggest insolvent institutions will produce collateral damage—say, losses among pension funds that hold their equities and uninsured debt. Policy makers will have to formulate policy to deal with that. For example, the Pension Benefit Guaranty Corporation will become insolvent and will need a bailout.

For Euroland, the solutions are more difficult because, as discussed above (and in several Levy Institute publications), these nations do not individually have the fiscal capacity to deal with their problems. So one solution for a troubled country is to leave the EMU and return to a sovereign currency issued by the government—e.g., the drachma for Greece, the lira for Italy, and so on. The transition would be disruptive, with near-term costs. But the benefit would be to create domestic fiscal and policy space to deal with the crisis. Default on euro-denominated debt would be necessary. Retaliation by the EU is possible. However, in our view this is preferable to the “Teutonic vs. Latin” two-currency scheme discussed above, which would simply tie, say, Greece to another external currency. It would have no more fiscal or monetary policy space than it has now, albeit with a currency that would be devalued relative to the euro.

If dissolution is not chosen, then the only real solution is to reformulate the EMU. Many critics of the EMU have long blamed the ECB for sluggish growth, especially on the periphery. The argument is that it kept interest rates too high for full employment to be achieved. We have always thought that was wrong; not because lower interest rates are undesirable, but because even with the best-run central bank, the real problem in the setup was fiscal policy constraints. Indeed, in a paper several years ago, Claudio Sardonì and Randall Wray demonstrated that the ECB's policy was not significantly tighter than the Federal Reserve's, but US economic performance was consistently better. The difference was fiscal policy—with Washington commanding a budget that was more than 20 percent of GDP, and usually running a budget deficit of several percent of GDP. By contrast, the EU Parliament's budget was less than 1 percent of GDP. While individual nations tried to fill the gap with deficits by their own governments, these created the problems we see today, as the chickens came home to roost, so to speak.

The problem was that as deficits and debt rose, markets reacted by increasing interest rates; recognizing that unlike a sovereign country like the US, Japan, or the UK, the EMU members were users of an external currency. As we said above, they were more like a US state. On the one hand, they could run much bigger deficits than US states (all but two of which are constrained by constitutions to balance their budgets), in part due to the expectation that if things went bad, the ECB would probably help their state central banks. But on the other hand, US states have Washington to provide fiscal relief—something EMU members did not have. At best, they could borrow euros from European institutions or from the International Monetary Fund (IMF). But borrowing would just increase interest rates, so they could get into a vicious debt trap. To some extent America avoids this trap, as markets force balanced budgets on states and Washington eases the pain with fiscal transfers. As a result, a larger percentage of EMU national deficits went to interest payments, which may not be the best stimulus as much leaks out to foreign holders of the debt.

Once the EMU weakness is understood, it is not hard to see the solutions. They include ramping up the fiscal policy space of the EU parliament—for instance, by increasing its budget to 15 percent of GDP, with a capacity to issue debt. Whether the spending decisions should be centralized is a political matter. Funds could simply be transferred to individual states on a per capita basis.

It can also be done by the ECB: change the rules so that the ECB can buy, say, an amount equal to a maximum of 6 percent of Euroland GDP each year in the form of government debt issued by EMU members. As a buyer, it can set the interest rate; it might be best to mandate that at the ECB's overnight interest rate target or some markup above the target. Again, the allocation would be on a per capita basis across the member states. Note that this is similar to the blue bond, red bond proposal discussed above. Individual members could continue to also issue bonds to markets, so they could exceed the debt issue that is bought by the ECB, much as US states issue bonds.

One can conceive of variations on this theme, such as creation of some EMU-wide funding authority backed by the ECB that issues debt to buy government debt from individual nations—again, along the lines of the blue bond proposal. What is essential, however, is that the backing comes from the center—the ECB or the EU stands behind the debt. That will keep interest rates low, removing “market discipline” and vicious debt cycles due to exploding interest rates. With lending spread across nations on some formula (e.g. per capita) every member should get the same interest rate.

All of these are technically simple and economically sound proposals. They are politically difficult. The longer the EU waits, the more difficult they become. Crises only increase the forces of disunion or dissolution, increasing the likelihood of eventual divorce and increasing hostility. That in turn forestalls a real solution, which makes the possibility of a Great Depression “2.0”—a combination of a downturn plus Fisher debt deflation dynamics—ever more probable.

All that means that money manager capitalism is doomed. We only need to decide on the endgame we prefer.

CONCLUSION: A Greek Endgame for the Euro?

The grand experiment of a unified Europe with a shared common currency has entered its endgame. If the current trajectory continues, the disintegration of the euro is inevitable. Athens is, of course, at the center of the vortex. The newest “rescue” plan accepted by Greece certainly will not save the system, and it will not save Greece from a sovereign default. The bailout

conditions demanded by the troika that holds the purse strings—the International Monetary Fund, the European Central Bank, and the European Union—include a review, now delayed, before it will release the next payment. But the review will reveal that Greece has no hope of meeting its targets.

Olli Rehn, Economic and Monetary Affairs Commissioner for the EU, has announced that the Greek government's latest measures "will go a long way" toward resolution, and the European Commission is sending a team to Athens to work on another rescue package. The ECB is keeping the show on the road by making even more austerity demands. Despite this climate of denial, the tottering Greek government is going to fall, and—presto!—a complete default will follow. As the results cascade across the continent, credit ratings, interest rates, and the political fallout will quickly become unworkable for both stronger nations and weaker ones.

Recently, US Treasury Secretary Timothy Geithner went to Europe to provide advice. However, the message was muddled, with Geithner attempting to be an agent of change in the thinking of European leaders (read Merkel and Sarkozy, primarily), who continue their vacuous announcements that Greece needs to be saved and should not be allowed to default, but stop short of delineating a strategy to which they can agree. And of course, the pep talks from Lagarde (IMF) and Zoelick (World Bank) were mostly didactic, and to some extent pedantic; destined for public consumption with no effect on the minds of the financial markets, as we have witnessed thus far.

Our view is that even though they know very well that Greece's sovereign debt problem is a solvency issue and not a liquidity problem, they pretend and forcibly argue that it can be solved with the rescue packages, and only if Greece can carry out its promised reforms. But they are cognizant of the fact that, irrespective of the success or failure of the harsh austerity measures, the country's debt level is increasing, while the European financial system remains at risk and will, in all likelihood, see the unraveling of the euro project. The consequences will undoubtedly be catastrophic for the eurozone member states that are highly indebted (Italy, Greece, Spain, Ireland, Belgium, and Portugal), but also for the surplus-producing states, most especially Germany, France, the Netherlands, and the Nordic states that are highly dependent on their export-directed economies enjoying an exchange rate stability the euro provides. And then there is the contagion effect once Greece's insolvency is "officially" recognized, spilling over to

Italy, Spain, Portugal, and Ireland, and possibly to the global economy. This is a huge responsibility to take on, especially for the inept leadership. So, better to kick the can as far down the road as you can and hope the problem will somehow go away.

To be sure, Greece is also constrained by internal politics and has not played its cards particularly well. It is hard to explain the actions of Greek Prime Minister George Papandreou. Our suspicion is that, in his eagerness to be respected all over Europe and beyond as the bold agent of change of Greek society, he miscalculated what was possible and relied mostly on advice emanating from the neoliberal prescriptions used by the IMF and adopted by the EU, which have, over time, proven to deliver characteristically abysmal results. For a society like Greece with flagrant tax avoidance and evasion together with a high degree of transactions opacity, the ongoing harsh measures and reforms that are being implemented have proven to be ineffective, exacerbating tax evasion, increasing the shadow economy, and slowly but steadily causing the disappearance of the middle-class; pushing the vulnerable segments of the population to deeper poverty and despair while the privileged benefit disproportionately, all resulting in making Greece one of the most unequal countries in Europe.

Given the unprecedented and extraordinarily high levels of Greek bond yields, markets and investors have concluded that Greece will sooner or later default on its debt, whether in an orderly or disorderly fashion. It is no surprise, then, that they would want a clearly worked out plan that isolates Greece from the rest of the eurozone. But this is not possible, as the latest troubles of the Franco-Belgian lender Dexia have shown. Greece's sovereign debt problem is not limited to Greek lenders, but affects the entire eurozone, requiring a eurozone-wide solution. The immediate problem of Greece can be resolved along the lines of the US TARP program, with the ECB announcing that it is ready and willing to purchase all outstanding Greek bonds at market prices. The result will be a dramatic drop in yields and increases in Greek bond prices. The ECB's message will quickly calm the financial turbulence and solve the eurozone markets' volatility problem until a permanent solution is crafted. But such a bold approach will be forthcoming neither from a lackluster Trichet leadership—especially now that he is about to depart, passing the Greek “hot potato” to his successor—nor from the continuing uninspired leadership of Germany and France.

That opens the possibility of an orderly default with a substantial bond “haircut” of no less than 60 percent, together with special bank recapitalization funds for all eurozone banks to avert a financial system failure. Greece will most likely continue to receive structural funds support from the EU for development purposes, but will be required to continue the implementation of even harsher austerity measures and reforms. The structural deficit will eventually be brought under control at the expense of a high unemployment rate of 20–25 percent. The EU/ECB/IMF-imposed measures will achieve the goal of deficit reduction with unprecedented numbers of unemployed, severe maldistribution of income and wealth, and a country highly dependent on the European powers and with restrictions to its sovereignty.

But that is not the only possible endgame. When the signals from the institutions charged with running the European Union inspire a lack of confidence, it becomes imperative to consider alternative strategies. Greece’s exit from the euro has been presented as another option for dealing with the country’s insolvency. Economists, commentators, and politicians have suggested various (temporary or permanent) exit strategies; Nouriel Roubini is one among many advocating them. Greek exit from the euro entails significant risks that are difficult to ascertain. This strategy will cause market upheaval to reverberate through the global economy, at least for some period of time, pushing other eurozone countries to follow suit, and with serious consequences for Greece. We should expect an immediate devaluation of the national currency, a default on the country’s debt, inflationary pressures, runs on Greek banks (and their nationalization), together with perilous economic and societal trends characteristic of a dysfunctional economy. It is possible, however, that after a period of dramatic hardship, the country may reestablish itself as a viable economy highly dependent on a spectacular leader showing the way.

In sum, the collapse of the euro project will break in one of two ways. Looking increasingly likely, and least desirable, is that nations will leave the euro in a coordinated dissolution, which might ideally resemble an amicable divorce. As with most divorces, it would leave all the participants financially worse off. Wealthier countries would be back to the kinds of tariffs, transaction costs, and immobile labor and capital that inspired the euro in the first place. Poorer nations could kiss their subsidies, explicit and implicit, good-bye.

Less likely, but more desirable, would be a major economic restructuring leading toward increased European consolidation. The EFSF, which is the rescue fund of the European Central Bank, now has access to 440 billion euros. Thus far, the real beneficiaries of the EU bailouts have been the banks that hold all the debt. But with some restructuring and alteration of regulations, that would not need to be the case. The doomed rescue plans we are seeing do not address the central problem: countries with very different economies are yoked to the same currency. Nations like Greece are not positioned to compete with countries that are more productive, like Germany, or that have lower production costs, like Latvia. Any workable plan to save the euro has to address those differences.

The best structural changes would even out trade imbalances by "refluxing" the surpluses of countries such as Germany, France, and the Netherlands into deficit countries by, for example, investing euros in them. Germany did this with the former East Germany following reunification. This kind of mechanism could be set up very quickly under the EFSF if it had a deeper well to draw from, probably one trillion euros.

The European Parliament, led by its premier leaders, Angela Merkel and Nicolas Sarkozy, could authorize the EFSF to take over the entire sovereign debt of the expanding periphery, which, in addition to Greece, would include Ireland, Portugal, Spain, and possibly Italy.

It is possible that the EU will eventually take this path, or a similar one, in recognition of the value of the eurozone. The current approach is unsustainable, with French and German taxpayers furious about footing the bill, and residents in the peripheral nations angrily resisting cutbacks. And it is remarkable that Merkel has not already recognized that, as the EU's largest net exporter, Germany's insistence on fiscal austerity for its many troubled neighbors is a losing proposition.

Ideally, the EFSF would ultimately be responsible to the elected European Parliament. The arrangement would replicate, in some ways, the US Treasury's relationship with the states, but with more control by Europe's nations. Yes, the European Parliament has long engaged in payments to poorer nations, but its total budget has remained below 1 percent of GDP, which is clearly too small.

The founding of the EU was a political venture that emerged from the ambitious heads of the two leading continental powers, Germany and France. Their creation grew into a promising economic laboratory. It is ironic that it is the absence of a true political union—an entity with a unified fiscal policy as well as a unified currency—that might be the cause of its death.

The fallout from a European crash will be significant. Indeed, we believe that due to the interconnectedness of global finance, a financial crash in any region is likely to set off a second installment of the GFC. The spark could come in Europe, America, or even in Asia or the BRICS. While we do believe there are benefits to unification in Europe and to greater integration of all economies around the globe, there is also the danger that over-leveraged global financial capitalism causes a crisis in one area to quickly degenerate into a global financial crisis.

What we have today is, in Minsky's terms, money manager capitalism. We will not repeat other analyses done at the Levy Institute, beginning with Minsky's own contributions. Suffice it to say that what we need is a different form of what Minsky called the "57 varieties of capitalism." This one is simply too fragile to be sustained. While the problems in Euroland are somewhat idiosyncratic—a unified currency without unified fiscal policy—Europe also shares with the Anglo economies the common money manager characteristics: too much debt, too much layering and leveraging, and too much power in the hands of money managers. The greatest barrier to a resolution in Europe is the fear among leaders that reform will harm the biggest banks. Both Europe and the Anglo nations, as well as Iceland, need debt relief and downsizing of the role played by finance. But the very power that finance has managed to assume makes real solutions politically infeasible.

It may take a total collapse of money manager capitalism before a real solution can be brought forward.

REFERENCES

- Ablan, J. and M. Goldstein. 2011. "Special Report: The great haircut, a radical plan to jumpstart the US economy may have to involve massive write-downs of US consumer debt." Thomson Reuters, October 3. <http://www.reuters.com/article/2011/10/03/us-haircut-idUSTRE79125J20111003>
- Credit Suisse. 2011. "Global Equity Strategy." Global Equity Research, September 23.
- Delpla, J. and J. von Weizsäcker. 2011. "Eurobonds: The Blue Bond Concept and its Implications." Bruegel.org, March 21. <http://www.bruegel.org/publications/publication-detail/publication/509-eurobonds-the-blue-bond-concept-and-its-implications/>
- Evans-Pritchard, A. 2011. "Frau Merkel, It Really Is a Euro Crisis." London Telegraph Blog, September, 27. <http://blogs.telegraph.co.uk/finance/ambroseevans-pritchard/100012223/frau-merkel-it-really-is-a-euro-crisis/>
- Giles, C. 2011. "Dark humour and hard talk at IMF meetings." Financial Times, September 25. <http://www.ft.com/intl/cms/s/0/630bdfce-e76c-11e0-da300144feab49a.html#axzz1afcxZMj1>
- Hennessy, P. 2011. "£1.75 trillion deal to save the euro." London Telegraph, September 24. <http://www.telegraph.co.uk/news/worldnews/europe/eu/8786945/1.75-trillion-deal-to-save-the-euro.html>
- Kennedy, S. 2011. "Europe Meltdown seen converging with recession in survey." Bloomberg, September 29. <http://www.bloomberg.com/news/2011-09-29/world-recession-seen-triggered-by-europe-breakdown-in-global-investor-poll.html>
- Liu, H. C.K. 2011. "The Eurozone Sovereign Debt Crisis: Part I: A currency union not backed by political union." Henry Liu: Independent Critical Analysis and Commentary, September 29. <http://henryckliu.com/page250.html>
- Peel, Q. 2011. "Merkel warns Athens of threat to rescue deal." FT.com, September 28. <http://www.ft.com/cms/s/0/f03d449c-e9f2-11e0-b997-00144feab49a.html#axzz1abFyjsth>
- Reich, R. 2011. "Follow the Money: Behind Europe's debt crisis lurks another giant bailout of Wall Street?" Robert Reich, October 4. <http://robertreich.org/post/11033625495>
- Stearns, J. 2011. "EU Stiffens deficit, debt rules to prevent further crises." Bloomberg, September 28. <http://www.bloomberg.com/news/2011-09-28/eu-approves-first-of-six-new-laws-to-toughen-deficit-rules.html>
- Taibbi, M. 2011. "Attorneys General Settlement: The next big bank bailout?" Rolling Stone, October 6.

- Tara LaCapra, L. 2011. "Morgan Stanley gives subdued outlook for brokerage." Reuters Global Wealth Management Summit News, October 4. www.reuters.com/summit/wealthmanagement11?pid=500
- Thomson Reuters. 2011. "Trichet's letter to Rome published, urged cuts, reform." Reuters, September 29. <http://www.reuters.com/article/2011/09/29/italy-ecb-idUSL5E7KT06020110929>
- Torres , Craig and C. S. Gage. 2011. "Euro Crisis Makes Fed Lender of Only Resort as Funding Ebbs." Bloomberg, September 28. <http://mobile.bloomberg.com/news/2011-09-28/euro-crisis-makes-fed-lender-of-only-resort-as-banks-chase-dollar-funding>
- Wray, L. R. 2011. "Waiting for the Next Crash: The Minskyan Lessons We Failed to Learn." Public Policy Brief No. 120. Annandale-on-Hudson, NY: Levy Economics Institute of Bard College. October. http://www.levyinstitute.org/pubs/ppb_120.pdf