A VERY NORTH ATLANTIC CREDIT CRUNCH: GEOPOLITICAL IMPLICATIONS OF THE GLOBAL LIQUIDITY CRISIS

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This paper explores some of the geopolitical implications of the continuing global credit crunch. In its methods and subject matter, geopolitics is a field alien to financial economics. While financial economics seeks to derive a theory of market and economic trends from past experiences, geopolitics is speculative, intuitive and aimed at anticipating the future. If financial economics treats the financial market as an external category, with no home or address, geopolitics is all about location, interests and power.

This does not mean that economists are unable to explore the latter.[1] Willem Buiter, for instance, persistently alludes to the broader geopolitical implications of the continuing financial turmoil. Recently, he has suggested that the meltdown may spell the end of the supremacy of London and New York as financial centers.[2] John Plender, a *Financial Times* columnist and chairman of Quintain, agrees in part. He believes that from 2002 to 2007, the United States and the United Kingdom were able to maintain significant balance of payment deficits because both economies generated positive investment income by borrowing short in safe liabilities to invest long in riskier assets.[3] Both observers believe that the two economies will be unable to pull this trick in the future and that the financial sector will provide a much lesser contribution to the balance of payments of the two states. Therefore—although neither says so openly—the Anglo-Saxon model founded on deregulated credit markets may become unsustainable in the future.

We have considerable sympathy with Buiter's and Plender's lines of thinking. We note, however, that when economists discuss geopolitical issues, the link to financial crisis theory remains somewhat obscure. The question we ask in this article is whether a firmer theoretical connection can be developed between theories of financial fragility and crisis on one hand, and geopolitical analysis on the other.

We suggest that such a connection can be forged through an important yet, so far, missing aspect in the theoretical analyses of the nature of the current financial

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crisis. Until now, the key issue for financial economists has been the supply of new assets and credit facilities. Indeed, the analytical and policy discussion of the origins of the current crisis has centered on the supply side of liquidity—on the quality, provision and regulation of new financial instruments and on the process of financial innovation as a whole. The underlying assumption is that demand will follow suit. In reality, however, newly invented esoteric financial instruments do not and could not find their customers by themselves. As we show in the first section of this article, even during the boom years, markets for these products needed to be created, and liquidity relied critically on demand being whipped up. Thus when economists step outside the frame of finance theory and speculate on the geopolitical implications of the crisis, they are confronted with the messier world that makes up the demand side for the products of financial innovation.

The current credit crisis is, in one sense, the last big throe of a declining U.S. hegemony.

In the world of economic theory, change occurs through innovation and competition. In a geopolitical analysis, markets are institutions operating in a political and regulatory environment which may or may not allow them to innovate. Their room for maneuvering is critically linked to politico-economic interests. Therefore, the link between theory and practice is most clearly reflected in the demand side of financial innovation. The demand side is shaped by the real-life combination of historical, political, social and economic factors in a specific context. Demand-side explorations draw upon and yet transcend the theoretical boundaries of financial economics.

In this article, we focus on one intriguing aspect of the demand side for the complex financial products that are at the heart of the credit crunch. Although the "subprime" was an American invention and the securitization boom was crucially tied to the developments in U.S. housing finance, it is not the American financial institutions that are bearing the brunt of losses from the subprime fiasco. Instead, it appears that the European banks, which from 2002 to 2007 had been keen to join their shrewd U.S. competitors, have suffered more from the fallout of the credit crunch. Indeed, as we demonstrate in the second section, the process of the liquidity build-up and its subsequent meltdown, as well the policy response to the crisis on both sides of the Atlantic, appears to have distinct geopolitical dimensions.

A simple geographical analysis of data for the crisis relating losses to date suggests that it is not simply an American, Anglo-Saxon or even global event. In a sense, it is a crisis of a notion the academe have long considered somewhat archaic: that of the North Atlantic economy, and more accurately, of the Atlantic banking community. According to the Institute of International Finance, so far European banks have borne slightly over 50 percent of the total losses from the crisis, while

American banks account for "only" 36 percent. Similarly, on 9 August 2007, the European Central Bank (ECB) injected 95 billion euros into the markets. The next day, the U.S. Federal Reserve felt compelled to auction a total of $38 billion, or nearly one-fourth of that amount.[4]

It appears, therefore, that while the supply side of the crisis was American, its demand side was distinctly North Atlantic. The specific geographic nature of the demand side was shaped, it appears, by the different regulatory regimes the banks and other financial institutions operate. Within Europe, for instance, the Spanish authorities required a high degree of transparency from Spanish banks, which as a result had little exposure to the complex synthetic vehicles, and have escaped the crisis relatively unscathed. Due to similar accounting rules and regulations, the Japanese, Chinese and Middle Eastern banks did not play a major part in expanding the trade in esoteric financial products.

Critical for our argument, however, is that while the core area of the crisis is distinctly North Atlantic, the political and regulatory regimes in which this banking community operates are comprised of three important actors: the United States, the European Union (EU) and the United Kingdom. Significantly, as we explain in the fourth section of this paper, there are signs that each of the three is reacting very differently to the credit crunch, with crucial differences emerging between the United States and the UK on one hand and the EU on the other. We believe that the diverging paths of regulatory responses are likely to have a longer impact and thus reshape the future development of financial innovation and, possibly, future financial crises. Our analysis of the diverging regulatory responses presented below leads us to a somewhat controversial conclusion. In contrast to many of the experts with whom we share the analysis of the crisis causes, we cautiously suggest that there may be reasons to believe that in the foreseeable future, the United States will be unable to produce another meltdown of such magnitude. The current credit crisis is, in one sense, the last big throe of a declining U.S. hegemony.

The Three Pillars of Liquidity Illusion

Liquidity, or rather the lack of it, has been at the epicenter of the continuing financial turmoil since its start in August 2007. Variously described as the fallout from the American subprime mortgage fiasco, a global credit crunch or a crisis of securitization, the financial crisis that began in 2007 has been underpinned by the rapid evaporation of liquidity. Liquidity has vanished, in particular, from the markets for complex financial derivatives, which had thrived during the securitization boom. Liquidity also evaporated from the interbank markets, signaling banks' reluctance to lend to one another. Liquidity strains have been cited as the key trigger of major casualties of the credit crunch, such as Northern Rock in the UK and Bear Stearns,

IndyMac and Fannie Mae and Freddie Mac in the United States.

One of the disturbing aspects of liquidity is that its meanings and functions as a financial category vary according to the context and level of economic activity, as well as to the phase of the business cycle.[5] Liquidity of the market or a portfolio of assets during purported good times is not the same as liquidity during an economic downturn or a financial crisis. Assets that are easy to sell when economic agents share a sense of optimism about their profitability, liquidity and safety often turn out to be unwanted and expensive bundles of illiquid debt when the sense of optimism evaporates. Hence, liquidity can evaporate overnight.

This is exactly what happened to hundreds of billions of dollars worth of securitized loans, mortgage-backed securities (MBS), asset-backed securities (ABS), collateralized debt obligations (CDOs) and a plethora of other obscure financial instruments over the past two years. During the liquidity boom from 2002 to 2007, financial strategists could confidently sell highly complex instruments such as synthetic derivatives or CDOs in large quantities to clients across the world. Few buyers, it turns out, bothered to inquire what the obscure labels actually meant. The market for these products appeared highly liquid and profitable. Indeed, only weeks before the crisis erupted, leading policy makers were concerned with what they saw as a structural liquidity glut.[6] In the matter of days in August 2007, these worries turned into the fear of a global liquidity meltdown. When the boom came to a halt, synthetic financial products became unwanted parcels of debt, and their markets lost their liquidity.

In this respect, scholars and market analysts aiming to understand the relationship between liquidity and financial fragility have used several relevant concepts. John Maynard Keynes wrote about the "fetish" of liquidity in 1936—a false sense of security an investor develops about the liquidity of the market as opposed to the liquidity of his own portfolio. Peter Warburton referred to "debt delusion" as an inherent problem which arises from confusing the large volumes, ease of trade and the popularity of financial instruments with greater liquidity.[7] More recently, Claudio Borio of the Bank for International Settlements (BIS) used the concept of "artificial liquidity" to describe a fragile pre-crisis condition of the market, typically at the very peak of an investment boom like the ones that occurred in 2000 and 2004. Avinash Persaud used the term "liquidity black holes" to describe "episodes in which the liquidity faced by a buyer or seller of a financial instrument virtually vanishes, reappearing again a few days or weeks later."[8]

From these and other studies of the relationship between liquidity and financial fragility, we have teased out three core elements that we believe sustain the liquidity illusion during the boom period, thereby creating a state of artificial liquidity of the market or of an economy as a whole.[9] These elements are: Ponzi finance, which

develops in a climate of deregulated credit and thriving financial innovation; the market's underlying faith that the financial innovation will be rewarded—by political means if necessary; and, finally, a structure of authority that legitimizes the products of financial innovation in the market and hence ensures their liquidity, such as credit rating agencies, in the case of the current crisis. As we shall see below, each of the three elements requires a distinct regulatory condition that allows the liquidity illusion to flourish. When combined, the three pillars set up the workings of artificial liquidity (the boom phase) which inevitably ends in a meltdown (the crisis phase). In what follows, we show that the three pillars of the liquidity illusion, or artificial liquidity, have been at the epicenter of the ongoing crisis.

Ponzi Finance

In his financial instability hypothesis, Hyman P. Minsky used the notion of Ponzi finance to describe a situation of financial fragility, in which an economic agent can pay his debts only through new borrowings. For Minsky, a "Ponzi scheme" is a method of financing old debt with new debt. In essence, it is a pyramid scheme, typically—as the allusion to fraudster Charles Ponzi implies—containing an element of deception or fraud. Many believe that the epicenter of the continuing credit crunch and the subprime mortgage crisis in the United States—was a giant Ponzi scheme.[10]

The subprime industry was, in part, a Ponzi scheme for several reasons. First, the practice of providing people with uncertain credit histories, no prospects of higher incomes and often no jobs with 100 percent (or sometimes higher) mortgages could be viewed as a deception. From the very start, it was clear that many subprime borrowers would be unable to pay their mortgages if, or rather when, the interest rates on their loans rose. Any Ponzi scheme can thrive only as long as it attracts new participants. In the United States, subprime lending was justified by the belief that the rising values of property would suffice to repay the loans and, like in any Ponzi scheme, this belief proved to be self-fulfilling. According to Jan Kregel, once the bottom layer of properties was inflated through the creation of massive demand, the entire U.S. housing market entered a bubble phase. Housing markets, however, are notoriously cyclical. It was this fact, along with the actual terms of the subprime loans, that the scores of financial advisers who sold the products forgot to mention to their clients.

Second, the terms of borrowing and the conditions for repayment appear in retrospect to be the key block in the Ponzi pyramid of subprime loans. Ponzi-type methods employed by lending institutions included large pre-payment penalties, low "teaser" rates that reset at much higher rates, knowingly inducing a borrower to loan terms that he would not be able to meet.[11]

The reasons why subprime industry flourished for a prolonged period go beyond economics. On one hand, subprime lending mushroomed in the United States (and to a lesser extent in other Anglo-Saxon countries such as the UK, Australia and New Zealand) due to historically low interest rates in the 1990s and 2000s that presented ample opportunities for borrowers. On the other hand, low interest rates were available in many other regions—notably in continental Europe and Japan—that have avoided the spread of similar Ponzi schemes on the back of their own subprime sector. To us, this suggests that the Ponzi pyramid of subprime finance, as well as the related securitization boom, was shaped by the political climate in the Anglo-Saxon economies and, correspondingly, by the benign and ill-informed view of financial and monetary authorities on the risks posed by the expanding bubble of artificial liquidity. In fact, the boom of housing finance and related securitization markets was celebrated by many officials on both sides of the Atlantic, since the political benefits of making housing more affordable to those who could never afford to own their own home were high.

Financial Innovation

Subprime lending was a time bomb waiting to explode. Nevertheless, in a wider context it would have played an important, yet still relatively minor, role in sustaining the boom of 2002 to 2007 had there not been a second pillar to the liquidity illusion. That pillar consists of a series of financial innovations that created a sense of the unprecedented and infinite liquidity of the subprime-related financial markets—a financial technique that transformed tranches of fundamentally illiquid debts into easily tradable, liquid securities.

The two went hand in hand. The CDO market grew in parallel to the subprime boom in the United States and fed upon it.[12] In 2004, the monthly issuance volume of cash and synthetic CDOs stood at just over $20 billion. During the following years, it expanded rapidly, with the synthetic CDOs growing at a higher rate than that of cash CDOs. By the first quarter of 2007, monthly issuance of CDOs stood at more than $90 billion.[13] By mid 2007, just before the start of the credit crunch, the outstanding value of CDOs in the U.S. market stood at $900 billion. Of this, about 17 percent has been created out of subprime mortgages, with an average credit quality rating of BBB. Another 30 percent has been created out of leveraged loans in the form of CLOs.[14]

According to Kregel, at the center of this process lay a transformation of the U.S. banking system. Institutionally, the spread of securitization is related to the way risk has been modeled, valued and traded by banks and financial houses since the liberalization reforms were introduced in the 1980s in the United States and in other countries.[15] These reforms gave rise to a new type of banking now known as the

Originate and Distribute (ORD) model. Under the new principle, the bank is no longer an institution focused on taking deposits and giving out loans. Instead, it is a competitive financier seeking to maximize fee and commission income from originating assets, managing those assets in off-balance sheet affiliate structures (SIVs), underwriting the primary distribution of securities collateralized with those assets and servicing them. Crucially in the discussion of financial fragility, the banker today pays less attention to credit evaluation since the interest and principal on the loans originated will be repaid not to the bank itself, but to the final buyers of the collateralized assets.

The adoption of the ORD model of risk trading has underpinned a phenomenal rise in commission fees and income from capital market related activities for banks. According to one estimate, between 2004 and 2006, earnings from derivatives trading and capital market related activities at the top ten global investment banks have risen by almost two-thirds, from $55 billion in 2004 to $90 billion in 2006.[16] As a reflection of these changes, the profits from the sales and trading operations had not only been growing, but also assuming a greater share of the investment banks' revenues: over 90 percent for the Americas, over 80 percent for Europe, Middle East and Africa, and just over 40 percent for Asia Pacific.[17]

Subprime lending was a time bomb waiting to explode.

In this spiral of financial innovation, driven by the aggressive search for profits and desire to outperform competitors, the usual trend of a Ponzi scheme prevailed: Supposed old-style prudent banking was derided as boring and conservative, while the risk takers were considered sophisticated, innovative and shrewd. As long as this market atmosphere was supported by the belief in robust economic fundamentals, the undervaluation of risks, especially the liquidity risk, the aggressive expansion of new borrowings and, in many cases, the use of quasi-legal investment techniques and outright swindling, flourished.

Herding, Moral Hazard and Liquidity Illusion as a State of Mind

The broadening of securitization to include new markets and increasingly esoteric financial products meant that origination standards in the newly securitized assets were driven by the requirements of investors as much as by the credit views of the firms that originated the credits.[18] Here, the illusion of infinite market liquidity became self-fulfilling. As one former risk manager recalled recently, "The possibility that liquidity could suddenly dry up was always a topic high on our list but we could only see more liquidity coming into the market—not going out of it."[19] Therefore, it was the continually growing demand for, and turnover of, the newly minted securities—as much as the efforts of brainy financial engineers—that created

and sustained the illusion of liquidity from 2002 to 2007. At the same time, artificial liquidity of such magnitude was built not only on the desire and ability of financial institutions to make debts liquid (to innovate and trade), but also on their underlying confidence in the quality of liquidity they have supplied.

Confidence in these new instruments was generated, in part, by the notorious moral hazard factor. That is, the belief on the part of financial institutions that they will be bailed out in the event of a crisis, since their individual collapse could trigger a contagion of defaults by other institutions. They had good reason to believe so. Recent history of American finance provides abundant examples of such cases of moral hazard—which goes some way in explaining the willingness of U.S. banks to take on inordinate risks. In all major systemic crises of the past twenty years—the fallout from the Tequila crisis of 1994 to 1995, the Asian crisis of 1997 to 1998, the Long-Term Capital Management fiasco of 1998 and even the dot-com collapse of 2000 to 2001—western financial institutions were, directly or indirectly, saved from bankruptcy by the Fed's injections of credit and commitment to stand by Wall Street.[20]

The fallout from the subprime crisis validated and further propagated the moral hazard phenomenon: the nationalization of Northern Rock in the UK, the takeover of Bear Stearns in the United States, the Fed-orchestrated support for Fannie Mae and Freddie Mac, as well as the sheer scale of liquidity injections by the world's major central banks since August 2007, only confirm the fact that moral hazard has been a major factor contributing to excesses and exuberance of today's financiers.

Making Bad Debts Liquid: The Role of the Credit Rating Agencies

Yet no matter how exuberant, canny or short-sighted financial strategists might be, illusions of prosperity, including the liquidity illusion, can only be sustained over periods of time if there is some credibility to new instruments. In other words, something or someone was needed to sustain the collective belief in the liquidity of bundles of bad debts and to make the complex structures of IOUs worth—or seem to be worth—more than the sum of its parts. That something, Roger Lowenstein writes, was the credit rating.[21]

As he explains, the escalation of securitization has given the credit rating agencies unprecedented power. The tradability (synonymous for many with "liquidity") of mortgage-based securities fundamentally depended on the ratings they acquired. Here, two complex processes have been at work: first, vehicle finance, driven by regulatory avoidance, manipulation of legal ownership of assets and "creative accounting;" and second, the technique of layering securitization structures. Credit ratings agencies have been pivotal to both.

From the very beginning of the securitization boom, a central objective in ensur-

ing the marketability of securitized debt has been to enable the rating agencies to grade the credit risk of the assets in isolation from the credit risk of the entity that originated the assets. Rating agencies demanded legal opinions that the securitized assets represented a so-called true sale and were outside the estate of the originator in the event the originator went bankrupt.[22] Such separation was absolutely essential for the approval stamp that the risk was redistributed and taken away from the originator's books. This role was played by scores of offshore Special Purpose Vehicles (SPVs) set up specifically as sham operations to isolate the originator from the product they sold. Once the assets had been isolated from the insolvency risk of the originator, there was no additional credit risk analysis required on the purchaser.[23]

Risk analysis, however, was required by credit rating agencies, and it is in this task that they have failed most miserably. As Lowenstein explains, in the euphoric climate of 2006, the Moody's analyst had, on average, one day to process the credit data from the bank. The analyst was not evaluating the mortgages but, rather, the bonds issued by the SPV. The SPV would purchase the mortgages, and then receive monthly payments from the homeowners. At the same time, the SPV would finance itself by selling bonds. The question for Moody's was whether the inflow of mortgage checks would cover the outgoing payments to bondholders. For the bank, the key to the deal was obtaining an AAA rating—without which the deal would not be profitable. The secret to making subprime into a AAA asset lay in the innovative technique of layering various types of assets according to their seniority. The highest rated bonds would have priority on the cash received from mortgage holders until they were fully paid, then the next tier of bonds, then the next and so on. The bonds at the bottom of the pile—the equity tranche—got the highest interest rate but would absorb the first losses in case of defaults.[24] Amid the global meltdown, we have not yet heard of any AAA defaults. However, these tiers of super-senior debt may hide more risks, and thus prove to be as illusory as the liquidity boom that was based on them.[25]

Sustaining the Liquidity Illusion: The Demand Side

In this way, the shift in the U.S. banking system to the ORD model underpinned the massive expansion of the Ponzi mode of financing. No longer accountable for the quality and creditworthiness of loans they were assuming, banks and other financial houses eagerly took on bundles of bad debts on the assumption that they were writing the risk off to other parties. Yet, this risk-dispersing capacity of the new markets for credit risk transfer (CRT) proved to be illusory. Much of the debt was, in fact, recycled through the banking system. In the end, the banks ended up not only selling off bad debt, but also buying bad debt from others. In addition, they

recycled the bad debt to other institutions such as hedge funds. But when the crisis erupted, they ended up taking some of the bad debt back on their books in attempts to avoid a complete meltdown of the system.

Here a crucial—yet at the time unnoticed—development took place. The expansion of the subprime industry was financed not only by the U.S. domestic market, but also by markets in Europe. It appears that American financial institutions managed to convince their European counterparts of the value of sophisticated debt instruments and of the risk-dispersing capacity of securitization. Although the key players of the rapidly growing CRT markets included many non-bank institutions, banks on both sides of the Atlantic began to actively trade in highly complex instruments of credit risk transfer.

The thriving securitization process, and the wider process known as the financialization of the economy, gave politicians and many other observers an impression of abundant global liquidity. While the financial services industry accounted for only about 16 percent of corporate output in 2007, it racked up more than 40 percent of corporate profits. From 2000 to mid-2007, the American stock market value grew at about 6 percent per year, while the value of financial services stocks increased by 78 percent. Though total corporate profits roughly doubled, business investment was almost flat—a clear sign of troubles to come.[26] The U.S. banking system, cheered on by the Fed and the government, has played a key role in (a) propagating the liquidity illusion internationally, and (b) expanding the subprime market beyond the considerable capacity of the U.S. banking system.

Long considered to be the most innovative and competitive, the U.S. banks led the way in securitization techniques, experimenting and financing new customers for debt-based securities. Operating primarily through their London subsidiaries, Wall Street banks eyed the large European market. Since 2000, the revenues of the biggest American banks generated from trading in Europe have doubled. Not surprisingly, European banks and financial institutions, particularly the so-called universal banks, were keen to emulate the success of their American brethren, and since about 2002, have adopted U.S. financing strategies wherever they could.[27]

Indeed, European banks have not only caught up with the trend, but excelled in it. Since 2002, the pace of debt and share issuance in Europe has outstripped that in the United States. Of this group, the best known is probably the Swiss company UBS, which traditionally had gained most of its profits from private banking services and selling tax avoidance schemes worldwide, before it discovered the charms of the new opportunities offered by MBS and ABS trade.[28] It is likely that in its search for new lines of business, UBS was reacting to the growing pressure on tax havens from the EU, the Organisation for Economic Co-operation and Development (OECD) and the Financial Action Task Force (FATF). By 2006, UBS became one of

the top share underwriters in the United States.[29]

By the first half of 2006, securities markets overseas overtook the U.S. domestic market. In early 2007, they were expanding three times faster than the American markets.[30] The debt boom attracted some financial institutions in Asia and other emerging markets, yet fundamentally it was a North Atlantic phenomenon. This observation stands at odds with today's characterizations of the crisis as a global credit crunch, yet we believe that the buildup of the artificial liquidity bubble, as well as the fallout from the crisis, centers critically on the dynamics of the North Atlantic political economy. In this regard, regulatory differentials and local and regional circumstances played a key role in determining whether the banking system would participate heavily in trading in the new esoteric securities.

According to the IMF, within Europe itself, the securitization boom was most pronounced in the UK. The UK securitization volume accounted for the bulk of the total European level (EU-15: the number of countries in the EU prior to the accesion of ten new members in 2004), having reached its peak in late 2006 to early 2007. From early 2007 onwards, this trend reversed itself, and the securitization volume in EU-15 far exceeded that of the UK market.[31] Here, instructively, we should note that Spanish banks, which had been prohibited from taking risky assets off their books and hiding them in SPV structures, have escaped the crisis relatively unscathed.

Key buyers of CDOs were hedge funds, banks, asset managers and insurance companies. Of these categories, CDOs assumed greater weight in hedge funds (comprising around 47 percent of their portfolios), while for banks the figure stood at about 23 percent. Interestingly, as far as quality of these securities is concerned, it appears that banks got the worst deal: their share of AAA tranches of assets was smaller than that of the hedge funds, while the bottom layer of these tranches (the so-called equity layer, the riskiest) was proportionately much higher than that of other types of buyers. In terms of a regional distribution, U.S. financial institutions purchased the bulk of ABS CDOs (around 75 percent, Europeans around 15 percent and Australians and Asians no more than 10 percent).[32]

Therefore the CDO trade was critically tied to the U.S. mortgage market, but it was internationalized as the North Atlantic boom of securitization. From 2002 to 2007, various types of CDOs became Ponzi parcels that tied the two regions in a web of bad, highly overpriced debt.

And Now To The Losses

The statistics of the eventual fallout from the crisis reflect the very North Atlantic character of the preceding boom. As of 2008, of the $387 billion in credit losses that global banks have reported since the start of 2007, $200 billion was

suffered by European banking groups and $166 billion by U.S. banks. There were, of course, significant banking write-offs in other regions, but Asian and Middle Eastern banks appear to have been less caught up in the frenzy. In fact, liquidity as such has not disappeared completely; it seems to remain elsewhere in the financial system, primarily in the holdings of the sovereign wealth funds of Asia and the Middle East. The data also show that European institutions have raised only US$125.5 billion of capital to compensate for the losses, compared with nearly US$141 billion raised by their U.S. rivals.[33]

Analyzing the risks of financial innovation, Charles P. Kindleberger argued that typically, it is the institutions who are the latest to join in the innovation-led boom that suffer the most from the inevitable bust. The fate of the Swiss bank UBS, amid the current turmoil, is a case in point. The latest arrival to investment banking, UBS became the largest European casualty of the crisis. As of 12 August 2008, UBS's total write-downs of bad debts for the April to June period totaled US$42.5 million.[34] The bank also said it would post US$19 billion of fresh write-downs in the quarter. Deutsche Bank warned of a 2.5 billion euro markdown, while Credit Suisse, UBS's Swiss rival, announced it is likely to take a loss as well. As of August 2008, only two European banks, HSBC and Santander, still had a market cap of more than US$100 billion, compared with five in January 2007.[35]

Admittedly, the concepts of European or American institutions and of European or American losses is difficult to ascertain. Today the largest banks and financial institutions operate internationally. Irrespective of their nationality, many conduct a good portion of their wholesale banking activities through centers such as London, as well as offshore financial centers such as the Cayman Islands, which are considered among the largest financial centers in the world.[36] Existing nationality-based statistics are not sensitive enough to these developments. Nevertheless, even if the statistics must be considered rough, they are indicative of certain trends.

This analysis raises two issues. The first, and oddly largely missing in current discussions, is the clear sign that the magnitude of the artificial liquidity bubble was made possible by the combined efforts of American and European banks and financial institutions and, to a far lesser degree, by the Asian financial institutions. This observation is highly significant in the context of the debate about the future of the so-called Anglo-Saxon capitalism we referred to above. There had been a long-running debate about Asian savers subsidizing the American consumer through massive purchase of U.S. treasuries. What is less known, yet no less important, is that one-tenth of all U.S. mortgages are in the hands of institutions and governments outside the country. At the end of March 2008, one-fifth of the securities issued by Fannie Mae and Freddie Mac and a handful of smaller quasi-government agencies, worth around $1.5 trillion, were held by foreign investors.[37] Between them,

China and Japan hold more than US$600 billion of these bonds. As our analysis shows, an additional third tranche of the massive subsidy to American consumers was provided by European savers purchasing CDOs through their banking system. Therefore, the American consumer-led boom of 2002 to 2007 relied not on one, or even on two foreign subsidies, but on three massive subsidies from overseas. Considering these figures—which remain underestimated in most discussions of the crisis—the sustainability of the so-called Anglo-Saxon capitalism, heavily dependent on foreign subsidies, comes into question.

One emerging post-crisis trend is of relevance here. Several Asian and Middle Eastern funds—derided by the West for political reasons—became investors of last resort for the victims of the securitization experiments. For instance, according to the British Broadcasting Corporation, "The Government of Singapore Investment Corporation invested US$6.8 billion in Citigroup shares and bought a 9 percent stake in UBS, while fellow Singaporean fund Temasek acquired a 10 percent stake in Merrill Lynch. The Abu Dhabi Investment Authority invested US$7.5 billion in a stake in Citigroup while the Kuwait Investment Authority snapped up US$6.6 billion holding in Merrill Lynch. The Gulf state of Qatar, via its Qatar Investment Authority, took a £1.7 billion stake in Barclays."[38] The China Investment Corporation paid US$5.5 billion to acquire a near 10 percent stake in Morgan Stanley.[39] Against these signs of growing Eastern appetite for corporate business, there are doubts whether Asian and Middle Eastern governments will continue investing in U.S. treasuries. The debate on this issue is well known and needs no rehearsal here.

Here, we are concerned with a related and equally exasperating question of whether Europeans will be prepared to continue providing an indirect form of subsidy to American consumers by joining into the bout of financial innovation. As we saw above, the Europeans have ended up subsidizing a good portion of the Ponzi pyramid of U.S. finance while bearing, as it transpires, a higher burden of losses from the crisis. Would there be any political response from Europe? The answers to these questions are speculative by their very nature, not least because they are based on projections of current trends and attempts to predict a political response in a complex and highly fluid situation. However, we address three important developments unfolding at the moment.

A New Transatlantic Regime of Financial Regulation?

Despite the fallout from the crisis, the ECB has offered more than 1 trillion euros to the financial markets without raising much of a political issue in Europe.[40] As of 1 August 2008, the ECB had approximately US$300 billion outstanding in three-month loans to banks.[41] Some banks, such as the stricken UBS, are now recon-

sidering their attitudes toward investment banking and financial innovation. Yet despite the considerable costs to European taxpayers and the likelihood of the Eurozone entering a period of recession, so far there has been little, if any, public discussion in Europe about the causes of the crisis. This is strange, considering that eight years of the Bush administration have left lingering anti-American feelings in Europe, which could easily be whipped up by disenchanted political interests. We cannot say definitively why that is the case, yet it may well be due to the ongoing, if often underplayed, debate in Europe about the role of London in the global financial system.

Digging deeper reveals an important split between the United States and Europe. Although monetary and financial authorities on both sides of the Atlantic call for a coordinated international approach to governing risks in the financial system, there are signs that European regulators are taking a far more radical stance on the lessons from the 2007 to 2008 meltdown. Importantly, they are focusing specifically on two of the three pillars discussed above that had produced the bout of artificial liquidity in the first place.

The U.S. conceptual response to the financial meltdown of 2007 to 2008, as well as the Fed's bailouts of ailing institutions and markets with massive offerings of liquidity (over 1 trillion dollars in gross terms since August 2007), suggests that the architects of the Anglo-Saxon financial system do not recognize any fundamental flaws in the existing models of financial innovation and risk trading.[42] On the contrary, American regulatory response, as articulated by the U.S. Treasury secretary in March 2008, emphasizes that innovation and market competition remain the priority for the U.S. financial system.[43] The chief aim of U.S. regulators throughout the crisis has been to restore confidence (synonymous in their minds with liquidity) in the markets and to install the conditions for a renewed period of economic growth. Specifically, the so-called objectives-based plan for a new regulatory framework, the American Blueprint, is designed to address specific market failures, rather than question the very principles of the functioning of the financial system.[44]

On the face of it, the EU's regulatory response echoes the themes of the American Blueprint.[45] The EU joins the United States in acknowledging the need for international policy coordination in financial reform, because the risk of a cross-border banking crisis is high. However, there are significant divisions, both conceptual and policy-related, between the United States and Europe (UK excluded) on this issue.

There are important differences between American and European officials on the risks and benefits of financial innovation and liberalization. The European road map for a new regulatory structure is built around four conceptual areas: qualitative improvement and transparency for investors, upgrading valuation standards,

strengthening prudential frameworks and risk management in financial institutions and reviewing the role and use of credit rating agencies in the financial markets.[46] Leaving aside the Ponzi dimension of the subprime crisis about which the Europeans can do little—the proposed regulation touches upon every aspect of the transmission mechanism of the artificial liquidity boom into Europe.

Specific regulatory norms, suggested by the EU, include higher and tighter capital and liquidity requirements for all banks operating in Europe, including European units of American banks. These regulations would make it more expensive to package and sell products like MBS in Europe, and thus put a hurdle on the further evolution of securitization. In the United States, banks as a rule do not face capital charges related to assets they securitize; instead they must set aside capital for assets that remain on their books. There are no proposals, of which we are aware, to change this state of affairs.[47]

Another crucial issue for Europe's roadmap to better financial governance is the regulation of credit-ratings agencies. According to Charlie McCreevy, EU commissioner for internal market and services, it is doubtful that strengthening the voluntary framework established by the International Organization of Securities Commissions code is actually an appropriate response to the crisis of the magnitude of the ongoing turmoil. McCreevy sought to propose a registration and external oversight regime for the rating agencies, whereby European regulators will supervise the policies and procedures related to the work of credit-rating agencies, and critically, aim to make the ratings market more open. Reforms to the corporate and internal governance of rating agencies will also form a part.[48]

Condemning the regulators for what he felt was their ignorance about the nature of financial innovation, McCreevy called for the European authorities to ensure that financial supervisors have at their disposal sufficient resources and expertise to keep up with financial innovation as well as the ability to challenge the CRAs in the right areas, on the right issues and at the right time.[49] Overall, McCreevy reiterated the need for Europe to take the lead in designing a regulatory response to the crisis.

The Rise of the Euro

McCreevy is not alone. In December 2007, Italy's finance minister, Tommaso Padoa-Schioppa, argued that the turmoil showed the need for a European rule book for banking.[50] The idea of Europe taking the lead in setting up a new regime of financial governance may raise a few eyebrows. Europe is riddled with its own problems: high costs associated with enlargement, the risks of higher inflation and unemployment in many states, a stronger euro and thus weaker exports, housing bubbles in countries like the UK and Spain and, according to recent prognoses, negative growth from 2008 to 2009 (as opposed to the recovery in the United States).

In addition, the European financial architecture is highly fragmented. Europe does not speak in one voice on financial and monetary regulations. It is divided between the highly regulated continental states and their so-called offshore finance brethren operating chiefly through London, Luxembourg, Switzerland and Ireland. Indeed, the large European banks tend to buy and sell complex derivatives through subsidiaries in London and through satellite offshore locations that have developed in British dependencies such as the Channel Islands, the Cayman Islands and Bermuda. The UK has always maintained much looser financial regulation and shows no sign of changing its stance. The Irish "no" to the proposed European constitution, ostensibly a vote of no confidence in the European super-state project, ensured the continuing development of Dublin's International Financial Services Centre, an offshore entity currently home to financial assets in the value of about ten times the Irish GDP.[51]

There are other important issues to be considered. As Europe tightens its rules, a more lenient capital regime of the U.S. financial system (if sustained) may divert a share of European financial operations to the U.S. market, just like the Tax Equalization Act drove U.S. banks away from the U.S. regulatory terrain into European offshore markets in the 1960s.[52] In addition, achieving a coordinated transatlantic regulatory response in the matters of finance is a tall challenge, as the problematic implementation of the Basel 2 Accord had shown before the crisis and as more divergences of the regulatory response to the financial crises between the Anglo-Saxon and European systems emerge.[53]

The combination of these factors suggests that the European Commission's ambition to take the lead in guiding the new transatlantic regime of financial governance may bear little fruit. Historically, the EU, while economically powerful, has been politically feeble—unable or unwilling to stand up to the Americans. In this particular case, the Europeans have done exactly that. While bearing a disproportionate degree of the costs of the U.S.-led Ponzi scheme and its real economic consequences, Europe seems to focus almost exclusively on dealing with the crisis consequences. Facing an imminent recession and inflation—or in the worst case scenario, stagflation—the ECB has maintained its traditional monetary stance, taking the lead in raising interest rates, to the displeasure of some key member states such as France.

In light of our analysis above, the response seems almost pathetic, ensuring that European taxpayers bear a significant amount of the burden brought on by the crisis. Not only do they shoulder a disproportionate share of the costs, they also are likely to end up in deeper recession. Paradoxically and perhaps unwittingly, in the long run this position may have considerable geopolitical implications since the actions of the ECB will undoubtedly strengthen the position of the euro as a world reserve currency. Indeed, recent currency trends, though downplayed by the ECB, suggest

that this is happening already.[54]

According to a recent ECB report, the global use of euro banknotes has been on the rise. The cumulative net total shipped by banks beyond the Eurozone has expanded noticeably—taking the total to more than 70 billion euros (US$110 billion, £56 billion) at the end of 2007. The actual total, counting other ways of shifting cash, was probably significantly higher.[55] Officially, the ECB does not seek to promote the euro's international use, regarding its growing global acceptance as a vote of confidence in Europe's monetary union. Attempting to downplay the significance of this trend, therefore, the ECB argued that recent rises in the share of euro holdings were almost entirely due to the rising value of the currency.[56] In the meantime, the policy position of the Federal Reserve Bank, true to tradition, has been to deal with the crisis by injecting more dollars into the system. This has caused sharp swings in the dollar value, which, combined with the crisis within the Fed itself, may further weaken the dollar as a global reserve currency.[57]

Conclusion

The trends discussed in this paper are relative, rather than absolute. If our observations are correct, then one likely impact of the current developments stands out: The relative rise of the euro in importance, combined with a likely outcome of stricter regulatory regime in Europe, brings us to a somewhat unexpected conclusion. It suggests that one pillar of the hidden subsidies to American consumers, such as the one that was channeled from Europe to the United States through the European and American private banking systems during the recent boom years, may—if not dry out entirely—at the very least slow down considerably. To us, this suggests that the next bout of artificial liquidity generated in the United States—which is bound to happen if the United States continues its current course—may not be able to harness such massive, if hidden, European subsidies. This, in turn, suggests that the next U.S.-generated financial boom may not be as big as the last one, in proportion to the overall size of the North Atlantic economies. Therefore the eventual and inevitable meltdown may not be as dangerous as this one.

This observation goes against some grim predictions of skeptics who believe that the solution to this crisis is already sowing the seeds of an even bigger crisis in the next seven to ten years.[58] They may turn out to be right, of course, but our view is that the current meltdown is the last big throw of a declining American hegemony. We believe the next—most likely, bigger—crisis will be generated by someone else.

Postscript: This article was written before the events surrounding the $700 billion bailout plan for the U.S. financial system. As this article goes to press, the situation proves extremely volatile; yet so far, the events of late September and early October

2008, both in the United States and in Europe, appear to reaffirm our observations on the geopolitics of the crisis. Indeed, the way the financial crisis developed and was handled by the authorities is likely to further weaken the U.S. dollar and with it, the ability of the U.S. banking system to draw other regions of the world into a whirlpool of artificial liquidity (as a percentage of GDP) in the future. Hence we stand by our conclusion—which is a minority view among critics of the highly liberalized Anglo-Saxon finance—and argue that the next U.S.-centered financial crisis will not be as devastating as the current one.

NOTES

1 George Soros, *The New Paradigm for Financial Markets: The Credit Crisis of 2008 and What it Means* (New York: Public Affairs, 2008); John Kay, "Same old folly, new spiral of risk," *Financial Times*, 13 August 2007; Philip Stephens,"Uncomfortable truths for a new world of them and us," *Financial Times*, 29 May 2008.

2 Willem Buiter, "Lessons from the North Atlantic Financial Crisis," (working paper, National Bureau of Economic Research, 28 May 2008).

3 John Plender, "Insight: Painful lesson for UK banks," *Financial Times*, 26 August 2008.

4 Claudio Borio, "The Financial Turmoil of 2007?: A Preliminary Assessment and Some Policy Considerations" (working paper no. 251, Bank for International Settlements, Basel, 2008); Altogether, between 9-10 August 2007, the European Central Bank, the Bank of Japan, the Federal Reserve Bank, the central banks of Australia, Norway, Switzerland and other countries injected around $325 billion into the ailing financial markets of the world.

5 Anastasia Nesvetailova, "Liquidity Illusions and Global Financial Architecture," (working paper 35, Institue for Political and Economic Governance, University of Manchester, Manchester, 2008).

6 Bank for International Settlements, 76th Annual Report, 2006; Robin Blackburn, "Finance and the Fourth Dimension," *New Left Review* 39 (2006), 39-70; Raghuram Rajan, "Investment Restraint, The Liquidity Glut, and Global Imbalances" (lecture, Conference on Global Imbalances organized by the Bank of Indonesia, Bali: 16 November 2006).

7 Peter Warburton, *Debt and Delusion* (London: 2000), 91.

8 Marco Lagana et al., "Implications for liquidity from innovation and transparency in the European Corporate Bond Market" (ECB Occasional Paper Series no. 57, European Central Bank, Germany, 2006).

9 Michel Aglietta, "Financial Market Failures and Systemic Risk," (working paper, CEPII Research Center, France, 1996-01); R. Bookstaber, "Understating and Monitoring the Liquidity Crisis Cycle," *Financial Analysts Journal* (September-October 2000); Hyman Minsky, "A Theory of Systemic Fragility," in *Financial Crises: Institutions and Markets in a Fragile Environment*, ed. E. Altman and A. Sametz (New York: John Wiley and Sons, 2007); Hyman Minsky, *Can 'It' Happen Again?* (New York: M.E. Sharpe, 1982); Hyman Minsky, *Stabilizing an Unstable Economy* (New Haven: Yale University Press, 1986); Anastasia Nesvetailova, *Fragile Finance. Debt, Speculation and Crisis in the Age of Global Credit* (Basingstoke, New York: Palgrave McMillan, 2007); M. O'Hara, "Liquidly and Financial markets stability," (working paper no. 55, National Bank of Belgium, 2004); Michael Pettis, *The Volatility Machine: Emerging Economies and the Threat of Financial Collapse* (Oxford: Oxford University Press, 2001).

10 Mark Fisch and Benn Steil, "Root out Bad Debt or More Pain will Follow," *Financial Times*, 21

December 2007; Nicholas Dorn, "Just Where Does the Locus of Corruption Lie?" *Financial Times*, 28 July 2008; Khor Hoe Ee and Kee Rui Xiong, "Asia: A Perspective on the Subprime Crisis," *Finance and Development International Monetary Fund* 45 no. 2 (2008); Jan Kregel, "Minsky's Cushions of Safety. Systemic Risk and the Crisis in the U.S. Subprime Mortgage Market," (Public Policy Brief no. 93, Levy Institute of Bard College, 2008); Randall Wray, "Lessons from the Subprime Meltdown," *Challenge* 51, no. 2 (March-April 2008).

[11] Randall Wray, "Lessons from the Subprime Meltdown," *Challenge* 51, no. 2 (March-April 2008), 51; Often borrowers were lured into taking a mortgage on their new home without being told that they would be unable to pre-pay it, to change the terms of the mortgage and that their interest repayments after the initial teaser periods would be up to 6 percent higher than the market average: in other words, they were simply trapped into the subprime net; Kregel (2008).

[12] Also collateralized loan obligations, CLOs.

[13] Basel Committee on Banking Supervision (BCBS), Credit Risk Transfer Developments from 2005 to 2007 (Basel: Bank for International Settlements, 2008), 32.

[14] Randall Dodd, "Subprime: Tentacles of a Crisis," *Finance and Development International Monetary Fund* 44 no. 4 (December 2007); John Lipsky, "The Global Economy and Financial Markets: Where Next?" (speech, Lowy Institute, Sydney, Australia: 31 July 2007).

[15] In this element, Kregel notes, the ongoing financial crisis does differ from the context originally identified by Minsky, yet the consequences will still be severe: it may still lead to a process of debt deflation and recession (Kregel, 2008); see also Jan Kregel, "The Natural Instability of Financial Markets," (Levy Institute Working Paper no. 523, Levy Economics Institute of Bard College, 2007).

[16] "The alchemists of finance," *Economist*, 17 May 2007a.

[17] "Here, there and everywhere," *Economist,* 17 May 2007b; "Black Boxes," *Economist*, 17 May 2007c; Fundhouse, comment on "Investment Banks Post Record 2006 Profit," Fundhouse Blog posted on 14 December 2006, http://fundhouses.blogspot.com/2006/12/investment-banks-post-record-2006.html; Emblematic of the securitization era, in the fourth quarter of 2006 Bear Stearns' revenue from its institutional equities business rose 7 percent to $397 million, while its money management and wealth management revenue jumped 33 percent to $245 million. Lehman Brothers' revenue from equity sales and trading rose 22 percent to $900 million in the fourth quarter of 2006, compared with $2.14 billion in revenue from bond trading. Its money management and wealth management revenue grew 26 percent to a record $640 million.

[18] Basel Committee on Banking Supervision (BCBS), Credit Risk Transfer Developments from 2005 to 2007 (Basel: Bank for International Settlements, 2008), 7

[19] "Confessions of a Risk Manager," *Economist,* 9 August 2008.

[20] Gary Dymski, "Is Financial Governance Feasible in the Neoliberal Era? Reflections on the Post-War Evolution of Financial Risk" (paper, Conference on the Crisis of Financialization, London: SOAS, May 27 2008).

[21] Neil Baron, "The Role of rating agencies in the securitization Process," ed. Leon Kendall and Michael Fishman, A Primer on Securitization (London and Cambridge, MA: MIT Press, 1996), 87.

[22] "Securing the Future," *Credit Magazine,* May 2008.

[23] Roger Lowenstein, "Triple A Failure," *New York Times*, 26 April 2008; "Financial Market Turbulence: Causes, Consequences and Policies," (IMF Global Financial Stability Report, International Monetary Fund, Washington, DC, 2007).

[24] Ibid.

[25] Neil Kochen, "Securitization from the investor view: meeting investor needs with products and price," in *A Primer on Securitization*, ed. Leon Kendall and Michael Fishman (London and Cambridge, Mass.: MIT Press, 2000).

[26] Ben Bernanke, testimony to the U.S House of Representatives, Committee on Financial Services, Semiannual Monetary Policy Report to the Congress, 15 February 2006; Joe Studwell, "Liquidity glut bars market pricing of capital," *Financial Times*, 13 March 2006; Charles Morris, "Imploding Credit Bubble to Hit $1 Trillion," *Washington Independent*, 12 February 2008; Key literature on the subject: Michel Aglietta and Regis Breton, "Financial Systems, Corporate Control and Capital Accumulation," *Economy and Society* 30 (2001), 433-466; Blackburn (2006); Tony Cutler and Barbara Waine, "Social Insecurity and the Retreat from Social Democracy: Occupational Welfare in the Long Boom and Financialization," *Review of International Political Economy* 8 (2001), 96-118; Shaun French and Andrew Leyshon, "The New, New financial system? Towards a Conceptualization of Financial Reintermediation," *Review of International Political Economy* 11 (2004), 263-288; Julie Froud, Johal Sukhdev and Karel Williams, "Financialisation and the Coupon Pool," *Capital and Class* 78 (2002), 119-151.

[27] In many cases this also meant using their London subsidiaries.

[28] Ronen Palan, Richard Murphy and Christian Chavagneux, *Tax Havens: At The Heart of Globalization* (Ithaca: Cornell University Press, forthcoming); At press time, an important case of UBS involvement in tax fraud is being heard by a U.S. jury.

[29] *Economist* (2007a).

[30] *Economist* (2007b).

[31] IMF, World Economic Outlook, April 2008 (Washington, DC: International Monetary Fund, 2008), 19.

[32] IMF, World Economic Outlook, September 2007 (Washington, DC: International Monetary Fund, 2007), 15.

[33] Gillian Tett, "European Banks Hit Harder by the Credit Crunch," *Financial Times*, 5 June 2008; Mark Scott, "Europe hit harder than US by Credit Crunch," *BusinessWeek*, 6 June 2008; These figures are accurate as of press time.

[34] *International Herald Tribune*, 12 August 2008.

[35] "European Banks Report," *Financial Times*, 10 August 2008.

[36] Palan et al. (forthcoming).

[37] Heather Timmons and Julia Werdigier, "U.S. bonds facing global test of faith," *International Herald Tribune*, 21 July 2008.

[38] Gain Stamp, "Credit Crunch a Year On: The Winners," *BBC News*, 5 August 2008.

[39] Ibid.

[40] This is a gross figure of the total amount of liquidity facilities organized by the ECB since August 2007. An estimate of the emergency measures by the ECB puts the value of the liquidity injections at £63 billion as of 8 August 2008 (*Manchester Business News*, 8 August 2008).

[41] "ECB Plots Clampdown," *Wall Street Journal*, 1 September 2008.

[42] According to the Federal Reserve Bank, the amount of loans outstanding through various lending facilities has increased from $76 billion in mid-December 2007, to $440 billion at the end of May 2008. John Hoefle, "The Banking Crisis Is Back in the Headlines," *European Intelligence Review*, 13 June 2008.

[43] U.S. Department of the Treasury, http://www.ustreas.gov/press/releases/hp872.htm.

[44] As opposed to the "functional" approach that has existed so far.

[45] Katinka Barysch, "A Joint Response to the Credit Crunch," Centre for European Reform, 19 March 2008, http://centreforeuropeanreform.blogspot.com/2008/03/joint-response-to-credit-crunch.html.

[46] Including, crucially, accounting rules, which have been cited as a major factor behind the under-valuation of risks; Charlie McCreevy, "Regulation and Supervision After the Credit Crunch" (speech, Public Affairs Ireland Conference, Dublin: 4 July 2008), 4-5.

[47] Predictably, banking groups and associations, led by the British Bankers' Association, are objecting to the proposed requirements. Among their complaints: the rules would prevent the securitization market from recovering and would stymie lending. Comment on "EU's Proposed Bank Rules Reflect Credit-Crisis Lessens," Work Blog, comment posted on 10 July 2008, http://remington-work.blogspot.com/2008/07/eus-proposed-bank-rules-reflect-credit.html.

[48] McCreevy (2008), 5. He noted that the IOSCO Code of Conduct to which the rating agencies agreed, had not produced the desired effects.

[49] Ibid.

[50] He also pointed out the lack of an EU crisis management mechanism: "Even with signs of a clear risk of contagion, no common analysis of the situation, no sharing of confidential information, no coordinated communication and no emergency meetings appear to have taken place among EU supervisors."

[51] Jim Steward, "Fiscal Incentives, Corporate Structure and Financial Aspects of Treasury Management," *Accounting Forum* 29, no. 27 (2005), 1-288.

[52] Ronen Palan, *The Offshore World* (Ithaca: Cornell University Press, 2004).

[53] For an excellent analysis of the history and current agenda of transatlantic approaches to financial regulation, see chapter 5 of David Andrew Singer, *Regulating Capital. Setting Standards for the International Financial System* (Ithaca and London: Cornell University Press, 2007).

[54] The euro has been trading at high levels against the dollar throughout 2008, reaching the record value of US$1.6038 to 1 euro in mid-July 2008. In December 2007, the euro's share in global official foreign reserves (the currency composition of which is known) reached around 25 percent. This was considerably higher than the corresponding share of the sum of all legacy currencies at the end of 1998, which accounted for about 18 percent (Papademos, 2008).

[55] Ralph Atkins, "ECB Plays Down Rise in Euro's Global Status," *Financial Times*, 10 July 2008. Monitoring the use of the euro in official reserves is hard because many countries do not reveal details of their holdings. The ECB's study was based on International Monetary Fund data, which cover only about two-thirds of total foreign exchange reserves, excluding China (Atkins, 2008).

[56] According to the ECB, at constant exchange rates, the share of the euro in global foreign reserves fell by one percentage point between December 2006 and December 2007.

[57] Our view is consistent with the analysis of the longer-term structural implications of the current crisis by George Soros, although he is more optimistic about the prospects of European recovery. See Soros (2008), 124-128.

[58] See for instance, "Two Fed Bank Presidents Warn About Lending to Securities Firms," *New York Times*, 6 June 2008.