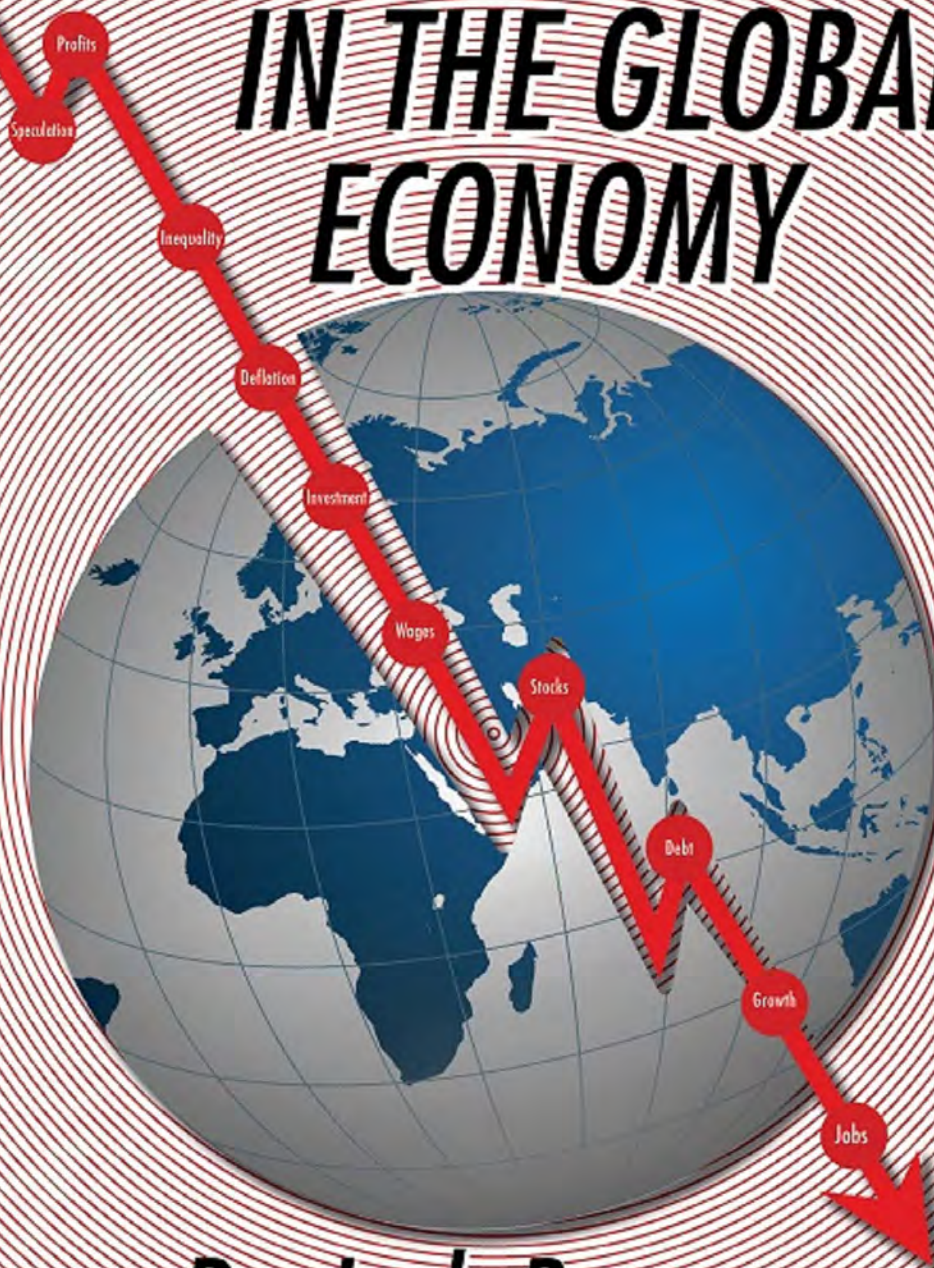


SYSTEMIC FRAGILITY IN THE GLOBAL ECONOMY



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SYNOPSIS

Just as contemporary economics failed to predict the 2008-09 crash, and over-estimated the subsequent brief recovery that followed, economists today are again failing to accurately forecast the slowing global economic growth, the growing fragility, and therefore rising instability in the global economy.

This book offers a new approach to explaining why mainstream economic analyses have repeatedly failed and why fiscal and monetary policies have been incapable of producing a sustained recovery.

Expanding upon the early contributions of Keynes, Minsky and others, it offers an alternative explanation why the global economy is slowing long term and becoming more unstable, why policies to date have largely failed, and why the next crisis may therefore prove even worse than that of 2008-09.

Systemic fragility is rooted in 9 key empirical trends: slowing real investment; a drift toward deflation; money, credit and liquidity explosion; rising levels of global debt; a shift to speculative financial investing; the restructuring of financial markets to reward capital incomes; the restricting of labor markets to lower wage incomes; the failure of Central Bank monetary policies; and the ineffectiveness of fiscal policies.

It results from financial, consumer, and government balance sheet fragilities exacerbating each other—creating a massive centripetal force disaggregating and tearing apart the whole, untamable by either fiscal or monetary means.

This book clarifies how the price system in general, and financial asset prices in particular, transform into fundamentally destabilizing forces under conditions of systemic fragility. It explains why the global system has in recent decades become dependent upon, and even addicted to, massive liquidity injections, and how fiscal policies have been counterproductive, exacerbating fragility and instability.

Policymakers' failure to come to grips with how fundamental changes in the structure of the 21st century global capitalist economy—in particular in financial and labor market structures—make the global economy more systemically fragile can only propel it toward deeper instability and crises.

An appendix describes three simultaneous equations that express in notational form the variables associated with the Theory of Systemic Fragility.

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INTRODUCTION

Half way through the second decade of the 21st century, evidence is growing that the global economy is becoming increasingly fragile. Not just in fact, but in potential as well. And not just in the financial sector but in the non-financial sector—i.e. in the ‘real’ economy.

The notion that the global crash of 2008-09 is over, and that the conditions that led to that severe bout of financial instability and epic contraction of the real economy are somehow behind us, is simply incorrect. The global economic crisis that erupted in 2008-09 is not over; it is merely morphing into new forms and shifting in terms of its primary locus. Initially centered in the USA-UK economies, it shifted to the weak links in the advanced economies between 2010-2014—the Eurozone and Japan. Beginning in 2014, it shifted again, a third time, to China and emerging markets where it has continued to deepen and evolve.

It is true that the main sources of instability today are not located in the real estate sector—the subprime mortgage market—or the credit and derivatives markets that were deeply integrated with that market. Nor is the real economy in a rapid economic contraction. The problem in the real economy is the drift toward economic stagnation, with global trade and real investment slowing, deflation emerging, and more economies slipping in and out of recession—from Japan to Brazil, to Russia, to South Asia and Europe’s periphery, even to Canada and beyond. On the financial side, it’s the continued rise of excess liquidity and debt—corporate, government, and household—that is fueling new financial bubbles—in stocks in China, corporate junk bonds, leveraged loans, and exchange traded funds in the US, government bonds in Europe, in currency exchange and financial derivatives everywhere.

Financial instability events and crashes, and the real economic devastation that is typically wrought in their wake, do not necessarily occur in repeat fashion like some video rerun. The particulars and details are always different from one crisis to another. At times it’s real estate and property markets (USA 1980s, Japan 1990s, global 2007). Other times, stock markets

(tech bust of 2000, China 2015). Or currency markets (Asian Meltdown 1997-98) or government bonds (Europe 2012). But the fundamentals are almost always the same.

What, then, are those fundamentals? How do they originate and develop, then interact and feed back on each other, creating the fragility in the global economic system that makes that system highly predisposed to the eruption of financial crises and subsequent contraction? What are the fundamentals that ensure, when some precipitating event occurs, that the financial instability and real contraction that follows occurs faster, descends deeper, and has a longer duration than some other more 'normal' financial event or recession? What are the transmission mechanisms that enable the feedbacks, intensify the instability, and exacerbate the crisis? And how do the fundamentals negate and limit the effectiveness of fiscal-monetary counter measures attempting to restore financial stability and real recovery? Indeed, what is meant by 'systemic fragility', why is it important, and why do most economists not address or consider it in their forecasts and analyses?

Fundamental Trends & Determinants

The book will argue there are 9 key fundamental trends underlying the growing fragility in the global economy:

- the decades-long massive infusion of liquidity by central banks worldwide, especially the US central bank, the Federal Reserve, along with the increasing availability of 'inside credit' from the private banking system;
- the corresponding increase in private sector debt as investors leverage that massive liquidity injection and credit for purposes of investment;
- the relative redirection of total investment from real investment to more profitable financial asset investment;
- a resultant slowing of investment into the real economy, as a shift to financial securities investment diverts and distorts normal investment flows;
- growing volatility in financial asset prices as excess liquidity, debt, and the shift to financial asset investing produces asset bubbles, asset inflation, and then deflation;
- a long run drift from inflation to disinflation of goods and services prices, and subsequently to deflation, as real investment flows are disrupted and real growth slows;

- a basic change in the structure of financial markets as new global financial institutions and new financial markets and securities are created, and an emerging new global finance capital elite arises, to accommodate the rising liquidity, debt, and shift to financial asset investment;
- parallel basic changes in labor markets resulting in stagnation and decline of wage incomes and rising household debt;
- growing ineffectiveness of fiscal and monetary policies as debt and incomes from financial assets rise, incomes from wages and salaries stagnate and household debt rises, and debt on government balance sheets increases while government income (taxes) slows—which together reduce the elasticities of response of investment and consumption to interest rates and multiplier effects from government fiscal policies.

Key Variables and Forms of Fragility

A main theme that emerges is that the preceding nine fundamental trends evolve and develop dynamically over time. Those nine trends also mutually determine each other, in the process contributing to a general condition of fragility in the economy. Systemic Fragility is therefore a dynamic condition that is first and foremost the consequence of the interaction of the above 9 key real factors or trends. In turn, those nine forces act upon three key variables to produce Systemic Fragility: debt, income required to service debt, and the ‘terms and conditions of debt’ (T&C).¹

Debt, income and T&C dynamically interact to raise fragility within the three main economic sectors—business financial, household consumption, and government balance sheet. However, systemic fragility is dynamic not only **within** a given form—i.e. financial, consumption, and government—but also **between** them. Not only may the level of fragility grow as real trends raise the magnitudes of debt, income and T&C within a sector or form, but the interactions between the three variables within a sector may exacerbate the level of fragility as well. Moreover, the feedback effects between the financial, consumption, and government balance sheet forms of fragility can further exacerbate the intensity of fragility on a systemic level.

Fragility is therefore not a linear process, proceeding from one level to the next higher as debt or income rise and/or fall, respectively, as some have described it. It is a very dynamic process, with multiple feedback effects within and between its primary sectors or forms. Systemic fragility is not a simple adding up of levels of fragility that develop within financial, household, and government sectors of the economy. How fragility between those sectors mutually determine each other and raise fragility at a systemic level is equally important.

This focus on dynamic interactions requires identifying and explaining the ‘transmission mechanisms’ within and between the three fragility forms. Some of the more important ‘transmission mechanisms’ include the price systems associated with both financial assets and real goods, government policy shifts and changes, as well as the psychological expectations of various agents—in particular the investor-finance capital elite, households as consumers, and government policy makers at central banks, legislatures, and executive agencies. Emphasis is placed on the price systems as especially important transmission mechanisms for the development of fragility.

The dynamic interactions—i.e. the feedback effects and the enabling transmission mechanisms—intensify the overall fragility effect. Moreover, the intensity due to interactions or ‘feedback effects’ varies with the phase and condition of the business cycle.

Fragility is therefore more than just the sum of its three parts. It is a dynamic process and that process has a historical trajectory based on real conditions as well as subjective, psychological expectations of real actor-agents. Because fragility is the product of internal trends and variables, it develops and grows endogenously, as economists say.

Another important characteristic is that rising systemic fragility renders the global economy more prone to eruptions of financial instability, on the one hand, and further contributes to accelerated contractions of the real economy in the wake of the instability events when they occur. That acceleration leads to a deeper and therefore often longer duration of real contractions.

Two important corollary themes follow from the general analysis of Systemic Fragility in this book. Both challenge prevailing economic orthodoxy. Both reject the notion that the global capitalist economy, in national or global form, tends to be long run stable and returns to equilibrium due to market forces and/or government policy intervention when unstable.

The first challenged orthodox assumption is that the capitalist price system will work its supply and demand ‘magic’ at the level of markets to restore equilibrium and stability. Contrary to contemporary economic analysis, the analysis of Systemic Fragility that follows maintains the price system is not a force for stabilization. Rather, in the 21st century it has increasingly become a force for destabilizing the system. That is particularly true of the role played by financial asset prices. Not all price systems are the same. There is no ‘one price system’ that fits all, where supply and demand together work to moderate instability, which is a major tenet of mainstream economic analysis. There are instead several price systems. More volatile financial asset prices behave differently and appear increasingly to drive the prices of goods (products), factors (wage or labor) and even money (interest rates) in the 21st century as financial asset investing becomes increasingly dominant within global capitalism and real asset investment in turn declines.

A second challenged orthodox assumption is that government fiscal-monetary policies can stabilize the system when such policy action is used to complement pure market forces and the one-price system. However, as the analysis of Systemic Fragility will argue, this is increasingly less the case as fragility builds within the global system. Systemic fragility blunts and reduces fiscal-monetary policies aimed at generating a recovery by negating in part the effects of elasticities of monetary policy and interest rate changes and multiplier effects on government spending and tax policies. Weaker and unsustainable recoveries are the result of the growing ineffectiveness of fiscal-monetary policies in attempts to stabilize the system, whether financially or in real terms. The failure of such policies is manifested in economic growth 'relapses' (sharp slowing or negative growth for single quarters) or short and shallow repeated descents into recessions. Those subpar recoveries may also, under certain conditions, descend into bona fide economic depressions.

Instability in the Real Economy

As chapters 1 and 2 that follow will address in more detail, the real side of the global economy is slowing. That slowdown was temporarily masked by the brief surge in China and emerging market economies' (EMEs) growth that occurred between 2010-13 for specific, but temporary, reasons. Initial signs that regional growth in China-EMEs was beginning to dissipate emerged in late 2013. Since then the forces underpinning that growth have weakened further, and now in 2015 growth is slowing in that region more rapidly.

The real goods producing economy is likely already in a global recession. Industrial production is falling, durable goods and factory output is slowing or declining in many countries. Investment in real assets is down sharply, incomes associated with production are stagnating or declining, productivity is almost stagnant, and a general drift toward disinflation and deflation has been underway for some time.

Perhaps the best indicators of this real slowdown is the collapse of world commodity and oil prices. Key industrial commodity prices for iron ore, copper and other key metals have collapsed by more than half, and crude oil by two-thirds from levels just a few years ago. Non-metal commodity prices have fared little better. Country economies highly dependent on such production and export—Brazil, Russia, Venezuela, Nigeria, South Africa, and even Australia and Canada—are nearly all in recession, or quickly approaching it. China's economy is undoubtedly growing at no more than 5% annually, much less than the officially reported 7%, and well below the 10%-12% of just a few years ago. And as China slows, so too do various South Asian economies, highly integrated and dependent upon China's economic performance.

Europe has been oscillating at an historical, sub-par rate of growth between -1% to 1%, after having experienced a double-dip recession in 2011-13, and an historic weak recovery in some of its strongest economies thereafter—including France, Italy and even Germany. Today those same economies continue to struggle to fully recover. Meanwhile Europe's periphery languishes in continued recession, not just the southern but now the northern, Scandinavian and Baltic regions as well.

At the same time, in the world's fourth largest geographic unit, Japan lapses in and out of recessions—four since the 2008-09 crash—despite having introduced a multi-trillion dollar quantitative easing central bank monetary injection since 2013. That injection produced a brief stock market surge but no substantial effect on its real economy or growth, which is slipping into recession yet again.

The much-hyped 'healthy recovery' of the US economy is, moreover, mostly media and politician spin. The US economy has experienced four 'relapses' in its real growth since 2010, where growth collapses for a quarter or turns negative. To the extent that real growth has occurred it has been in the shale-oil patch and associated transport and industrial production activity. That has been coming rapidly to an end, however, as global oil prices in 2015 have collapsed a second time, and may fall to as low as \$30 a barrel by some estimates. US real unemployment is still around 12%, masked by gains in low pay, part time and temp jobs in the service sector. US exports and manufacturing are slowing, as the dollar rises from long term interest rate upward drift, and soon may rise further due to short term rate increases by central bank action expected in late 2015. Construction remains stagnant at levels well below 2006-07's previous peak, as only high end income households can afford housing purchases. Household consumption remains mostly debt-financed as median incomes decline and wage growth seven years after the 2008 crash still fails to appear. Meanwhile, government agencies redefine what constitutes US GDP and growth as a means of boosting growth figures.

After the weakest recovery in more than a half century itself disappears, growing desperation with the slowing real economy has led government policy makers to try to obtain for their corporations a slightly higher share of the slowing world trade and production pie. In Europe and Japan, the response has been to de facto devalue their currencies by means of QE and massive money injections in order to lower production costs and stimulate exports. An accompanying hope is that the currency devaluation will also stimulate stock and bond investments that might in turn raise domestic real investment. But neither has succeeded in either economy. So Europe has already begun, and Japan plans, to press for more cost reduction through 'labor market reforms' that reduce wage costs—the alternative option.

Dueling QEs and de facto currency devaluations have only set off currency wars. European and Japanese efforts to in effect 'export' their slow growth have

only resulted in China, Asia, and EMEs also devaluing their currencies to boost their exports, setting in motion a 'race to the bottom'—with Europe and Japan almost certain to introduce yet more rounds of QE in 2016 in response.

Unlike in 2010-12 there is no China-EME growth surge mitigating the failed recoveries in Europe, the US, and Japan. Now the former are leading the global real economic slowdown. And there is no evidence the advanced economies of the US, Europe and Japan will assume the bolstering role previously played by China-EME in turn. In fact, as the China-EME slowdown accelerates, Europe and Japan will be further affected. And US manufacturing and industrial production will slow further as well, as long term interest rates and the value of the US dollar continue to drift upward regardless of what the Federal Reserve does with short term rates in 2015 and beyond.

Financial Instability in the Global Economy

No less evident is a growing financial instability in the global economy at mid-year 2015. At the top of that list are the events unfolding in China's equity markets, and behind that, continuing instability in financing for local government infrastructure, residential and commercial housing, in asset management financial products, and in the financing of old line industrial companies, many of which are now technically bankrupt.

A classic bubble in China's major stock markets began in 2014, resulting in a 120% increase in stock values in just one year. Implementing government policies intended to redirect excess liquidity and financial speculation away from out of control shadow bank financing in local government infrastructure and housing, China in effect redirected excess liquidity and capital into its equity markets. The strategy also sought to find a way to stimulate real investment from private sources by means of engineering an escalation in financial equity assets. It was hoped the wealth effect from equities inflation would also stimulate private consumption. The increased reliance on private investment and consumption would in turn reduce the need for the Chinese government to generate economic growth by means of the prior strategy: increased government direct investment, with massive central bank and foreign capital money inflows in support, and manufacturing exports growth as well. That prior strategy had run its course by 2012-13 and China began to shift to the new private sector driven strategy. But Chinese central bank money injection, foreign money inflows, and redirection of money capital from China's bubbles in real estate to China's equity markets did not produce real economy investment any more than money injection via QEs did in Europe, Japan or the US-UK. Instead, it set off a financial bubble in China stocks.

The Chinese stock bubble then began to unwind in June 2015 with a loss of more than \$4 trillion, the consequences of which are still unfolding in global financial markets. One such consequence has been the intensification of

competitive devaluations and a ratcheting up of currency wars in the \$5.7 trillion global currency exchange markets. Already festering with the introduction of \$1.7 trillion and \$1.3 trillion in dueling QEs by Japan in 2014 and the Eurozone in 2015, currency wars have clearly accelerated further with yet unclear consequences for both financial and real instability in the global economy. With its stock markets unwinding, China subsequently returned in part to an export-driven strategy to boost its already rapidly slowing real economy. That has taken the form of initially a 2%-4% decline in its currency, the Renminbi-Yuan. Currencies quickly responded in Asia and beyond to the Chinese stock decline, currency devaluation, and the likelihood of more of the same as China's real economy slows.

Chinese events have accelerated the already sharp declines in currency exchange rates, with the Euro and Japanese Yen already down by 30% since 2014, and now major Asian currencies rapidly declining as well from Indonesia to Thailand to Singapore, Taiwan, and even Australia and South Korea.

The obvious spillover and contagion underway by late summer 2015 has been increasing volatility and contraction in stock market prices globally. Collapsing currencies and stock markets mean accelerating capital flight from EMEs and even China. To try to slow the outflow, EMEs raise their domestic interest rates, which slows their domestic real economies further, producing more stock price collapse. Growing financial instability in stock and currency markets will begin to feed off of each other at some point, a condition which the global economy may have already entered.

Financial instability may be reflected in escalating financial asset price bubbles, or the unwinding and collapse of those bubbles. The collapse of world oil and commodity prices that has been underway since 2013-14, and now appears to be accelerating once again in summer 2015, is another strong indicator of growing financial instability in the global economy.

Continuing economic stagnation in Europe, Japan, and to a lesser extent in the US economies has resulted in world commodity and oil price weakness. China's real economic retreat since 2014 has exacerbated that weakness. And in crude oil markets, the intensifying competition between capitalist energy producers in the US shale-oil fields and the Saudi-Gulf led producers has driven the oil price decline still further. Collapsing in 2014 from \$120 a barrel to \$50 in early 2015, crude prices have again begun to descend further and could go as low as \$30 a barrel according to some estimates. The collapse of world oil prices—a financial asset as well as a natural resource—will have further negative effects on financial markets no doubt, especially when combined with general commodity price deflation that continues without relief.

Thus at the top of the list of financial instability today are fragile and collapsing equity markets, extreme volatility in currency markets, and the continued collapse of global commodity prices and oil.

But other financial assets are also in bubble 'range' in 2015, as a result of the massive excess liquidity injected into the world economy since 2008 and the resulting escalation of debt, especially on the corporate and banking side of total debt.

Record low central bank engineered rates since 2008, virtually zero for bank borrowers, has injected at minimum \$15 trillion into the global economy. That's in addition to the nearly \$10 trillion in central bank QE injections. Moreover, both forms of liquidity creation are still continuing. Liquidity has generated record financial asset prices—from stocks, corporate bonds, and sovereign bonds to derivatives, and other forms of financial assets—as well as exchange rate speculation.

Bubbles in corporate bonds are also at a peak, though not yet as obvious a problem as stock prices, commodity prices, or currency exchange rates. But they will be. At high risk are corporate junk bonds, which may yet be impacted by collapsing oil prices and corporate defaults in the US shale-oil sector spilling over to other corporations. Less unstable, but no less a 'bubble', are corporate investment grade bonds. Global issuance averaged less than \$1.5 trillion a year in the half decade leading up to the 2008 crash. In the past five years since 2010, that annual average issuance is more than \$2.5 trillion—i.e. more than \$5 trillion additional issued compared to historical averages.

Government bonds have entered unknown territory as well, especially in Europe, where they increasingly sell at negative rates. That is, buyers pay governments interest to buy their sovereign bonds, instead of vice-versa, in order to find a temporary safe haven for their excess liquidity. The bond world is turned on its head, with yet unknown consequences for future financial instability, witness the bond 'flash crash' of a few years ago, the causes of which are still unknown. There is a growing problem of disappearing liquidity in the bond trader market, as banks exit and more risk taking shadow banks assume their role, amid warnings of the possibility of an even faster collapse of bond prices due to lack of liquidity in the bond trading sector. It is unlikely that a new financial instability event will involve subprime mortgages. A classic stock market crash may prove the precipitating event. Or perhaps a bond market crash. Should the latter happen in the much larger bond sectors of the global economy, it will make a subprime mortgage or even stock market crash appear mild in comparison.

Behind the more obvious stock, bond, commodity, oil, and currency instability—all of which are now rising as of late 2015, there are numerous smaller but perhaps even potentially more unstable financial asset markets globally.

There are leveraged loans and debt markets now helping to fuel a record mergers and acquisition boom. There are exchange traded funds (ETFs) in which retail investors are over-exposed as they desperately search for 'yield' (higher returns) on increasingly risky investments. There are localized real estate

bubbles in London, the US, Scandinavia, Paris, and Australia as wealthy investors flee with their capital from China and emerging markets to invest in preferred high end properties in the advanced economies. There are bank to bank 'repo' markets in the US where liquidity appears insufficient and shadow bankers are allowed to play a larger role. And then there are the various unknown conditions in global derivatives trading, where much of the pure 'betting' and speculating on financial securities remains still very opaque seven years after the 2008 crash when derivatives played a strategic role in the rapid spread of financial contagion from the subprime bust.

In short, there are any number of growing sources of financial instability in the global economy today. And nearly all appear to be in a continuing drift toward more fragility and instability, not less.

In the book that follows, fragility is viewed as a key condition that leads to financial instability and may itself even precipitate a financial instability event—banking crashes, stock market collapses, credit crises, widespread liquidity and even solvency crises across sectors or major institutions, plunging currency exchange rates, money capital flight, a collapse of financial asset values, and/or defaults and bankruptcies—to name the most obvious. Depending on the scope and severity of the financial instability events, the real economic downturn that follows a financial crisis-precipitated contraction is qualitatively and quantitatively different from what might be called a 'normal' recession. Some economists have called this a 'great recession'. Having taken issue with that term, this writer has referred to it as an 'epic' recession—i.e. a kind of muted depression. Whichever the term chosen, it appears a drift toward another more serious instability event is underway in the global economy. Fragility is growing system-wide, and fragility leads to, and indeed may precipitate, financial instability on a scale sufficient to generate another contraction in the real economy. And while fragility leads to financial instability, which may precipitate and then exacerbate a subsequent contraction in the real economy, the latter contraction in turn tends to exacerbate systemic fragility as well. A self-sustaining negative cycle of financial and real instability can occur. And policy makers today are far less prepared or able to deal with it than previously.

Outline of the Book

Following a brief overview addressing the consistently over-optimistic forecasts of global growth by business and international economic bodies in chapters 1-2, recent key global developments are highlighted in chapters 3-6 that reveal the global economy in 2015 is experiencing greater potential for financial instability than ever since 2007-08.

Chapters 3-6 provide selected cases reflecting today's growing instability in global oil and commodity markets; the steadily intensifying commodity price

deflation; Emerging Market Economies' collapsing currencies, capital flight, growing local financial market instability, rising import inflation, and declining export income necessary to finance dangerously accelerating external debt; the growing desperation of policy makers and central bankers in Europe and Japan to jump start their economies, as they introduce 'dueling QEs' and 'internal devaluations' designed to reduce labor costs in an effort to drive down their currencies in order to capture a larger share of exports amidst a slowing of total world trade; and the growing financial asset bubbles in China which policy makers there have been unable to contain or reduce. Whether China, Europe-Japan, Emerging Markets, or Global Oil-Commodities—all reflect financial instabilities in the global economy at a time when a growing number of real economies continue to weaken as well. These developments and events serve, one might argue, as the 'canaries in the global financial coal mine'.

In Part Two of the book, chapters 7 through 15, the discussion moves from selected case narratives highlighting the most obvious contemporary evidence of global instability—in emerging markets, Europe and Japan, and China—to a deeper level discussion focusing on 9 key variables behind the next financial crisis now developing endogenously within the global financial system today. Here discussion focuses on the real, material conditions and forces that underlie the appearances of the crisis.

Part Two provides a transition to the all-important need for theory to understand where the global economy has been, is now, and, most important, where it may be going in the coming years. Without the projections enabled by theory, only empirical narratives remain. Without coming to grips with the most important information of the past, descriptions of the present can provide no accurate forecast of the future. Unfortunately, this is the state of much of contemporary economic analysis today.

So what are the limitations of contemporary economic analysis on the subjects of financial instability, investment, and the relationships between financial cycles and real cycles? That is the subject of Part Three and chapters 16-18 of this book. Chapter 16 critiques in detail the two major wings of contemporary mainstream economic analysts—what this writer has termed 'Hybrid Keynesians' and 'Retro-Classicalists'. It is argued that neither wing sufficiently understands the relationships between financial asset investment, real asset investment, and what this book views as the accelerating 'speculative investment shift' that is the consequence of those new relationships. Nor does either sufficiently understand how debt and incomes have grown increasingly mutually interdependent in a negative way, instead of functioning individually as positive sources of economic growth. Both misunderstand how financial asset prices destabilize the system. And both have an overly optimistic assessment of the role of traditional policies—the one monetary and the other fiscal. Their largely shared conceptual apparatus thus serves as an obstacle to

understanding the new characteristics of the 21st century capitalist economy.

Chapter 17 challenges the dominant wing of Marxist economic analysis today that argues the falling rate of profit from production of real goods (by what Marxists define as productive labor) is the key (and virtually only) driver of the slowing of the global economy and in turn is responsible for the shift to financialization of the economy. This book will argue that this is a kind of ‘mechanical’ application of Marxism that ignores and misunderstands the exchange side of the circuit of capital that Marx himself never fully developed. The falling rate of profit (FROP) approach represents a ‘glass half filled’ theory. It views all instability as determined by the production of real goods by only productive labor—i.e. those workers who produce real goods and related support services. Causation between the real and financial sides of the economy is viewed as a ‘one way street’ only, from production to financial, instead of a more likely mutual interaction between the two sectors. What the falling rate of profit theorists fundamentally fail to understand, it will be argued, is that it is investment that drives the economy—not a particular form of financing—i.e. profits—that drive investment.

Like the two wings of mainstream economists, the FROP wing of Marxist economic analysis thus lacks an adequate conceptual apparatus for properly understanding the relationships between financial asset and real asset investing in the 21st century global economy. In important ways, none of the three wings accurately reflect the richer views and ideas of those economists with whom they are associated. The ‘Hybrid’ Keynesians distort Keynes; the ‘Retro-Classicalists’ also misrepresent Keynes and others in their effort to restore classical economic analysis of the 18th-19th century; and the ‘Mechanical Marxists’ fail to understand Marx’s own method and to recognize where Marx was going in his final thoughts on banking, finance, and new forms of exploitation only beginning to emerge in late 19th century capitalism.

Chapter 18 addresses the major contributions by the economist, Hyman Minsky, whose work is most associated with the idea of what he called financial fragility. Writing mostly in the 1980s and 1990s, Minsky broke new ground in a number of ways on the subject of how financial cycles and real cycles mutually impact. His key contributions are noted. However, much was left unsaid by Minsky, who did not get to see the 21st century’s full manifestation of his initial observations. While noting his contributions, this chapter describes in detail the limits of his theory as of the mid-1990s, suggesting where it might have had to go in order to more fully explain how fragility in general is a major determinant of both financial and real instability of the global economy in the 21st century.

Part Four of this book provides this writer’s own analysis and theory of where the global economic crisis has been, and where it may be headed. That analysis is subsumed under the conceptual notion of ‘Systemic Fragility’ that has been referenced and raised in part in the preceding chapters, and which is

summarized in more detail in this final chapter 19, 'A Theory of Systemic Fragility'. Accompanying this summary chapter is an addendum, consisting of equations that represent the main arguments of chapter 19.

The concluding chapter's preliminary statement of a theory of Systemic Fragility is envisioned as an effort to begin to develop a new conceptual framework for the analysis of financial and real cycle interactions that represent the dominant characteristics of the capitalist global economy in the 21st century. It is viewed as merely a first step.

SHIFT TO FINANCIAL ASSET INVESTMENT

A key question is whether the shift to financial asset investment is the consequence of slowing real asset investment (i.e. equipment, structures, etc.) or whether the shift to financial asset investing is itself the driver of the slowdown in real investment. While a correlation clearly exists between the two forms of investment—real asset investment slowing and financial asset investment growing—the important question is which drives the other? Furthermore, is causality in the relationship mutual? And if so, how?¹

The slowing of real investment in recent decades has major consequences for the real economy—for the creation of decent paying jobs, household income stagnation and decline, weak recovery of household consumption, and therefore below historical average economic growth rates. The jobs-income-consumption decline may be temporarily offset by more credit availability to households to maintain consumption. But rising credit means more household debt in the present period, which means more household real income must be diverted to make interest payments in the future. In other words, in the short term, household debt may offset real income decline and help maintain consumption, but in the longer run it reduces household disposable income and slows consumption. And in the longer run, both the added debt and lower disposable real income add to household consumption fragility.

But slowing real investment is also associated with rising financial debt and therefore fragility in the business sector as well.

Origins of the Financial Asset Investment Shift

There are several fundamental forces behind the shift to financial asset investing. They include:

- Faster rate of increase in financial asset prices, and therefore profits, relative to real goods prices and goods profits over the course of a normal business cycle;
- Acceleration of the rate of increase of financial asset prices relative to goods prices in recent decades, beyond that occurring in a normal business cycle, due to the explosion of liquidity, credit, and the rise in leveraged debt to finance financial assets;
- Lower cost of production, and therefore higher profit, of financial securities compared to production of real goods—producing greater profits for the former compared to the latter;
- The absence of supply constraints to slow financial asset inflation over the cycle, in contrast to supply constraints in the case of goods prices;
- Less risk and uncertainty for financial asset investment due to the highly liquid nature of financial markets, providing rapid ease of entry and exit from markets in which financial assets are sold;
- New global institutional and agent structures that implement the investment in financial securities in highly liquid markets;
- Far lower incidence of taxation on financial securities compared to real goods.

These forces collectively enable financial asset prices to rise—and they do—much faster than goods prices over even a normal business cycle, thus providing potential greater excess profits from price-driven capital gains compared to goods prices and profits. The excess liquidity, credit, and debt leverage of recent decades accelerates prices and profits still further as well. Other characteristics—apart from price—associated specifically with financial assets, securities, and financial markets add to the greater relative profitability. The gap between prices, and therefore profits, that emerges between the two forms of investment is therefore accelerating in today's world of global financialization.

The greater relative profitability between financial and real asset investing draws money capital increasingly into financial asset investment, and over time does so at the expense of capital available for real asset investing. Greater financial asset profitability thus 'crowds out' real asset investment. Or, a more accurate metaphor perhaps might be, 'sucks money capital out' of real investment that otherwise might have been committed to real asset investment.

Enabling Causes of the Shift

At the most fundamental level, the shift from investing in real assets to financial asset investing occurs because the structure of the global economy today incentivizes financial asset investment more than real asset investment. Financial markets are more liquid and offer a greater potential return. Investors can move their capital in and out of more liquid financial markets more quickly—thus avoiding losses and taking quick advantage of capital gains.

Financial markets are more prone to price escalation due to the tendency toward excess demand in relation to supply: more demand results in higher prices and therefore more opportunities to sell for quick capital gains. Investors can invest and disinvest more quickly. Financial asset and securities markets are fundamentally price-driven markets, not markets where goods must be sold in large volume in order to realize profits or where price increases are constrained by supply forces over the course of a business cycle.

Because markets for financial securities are highly liquid, long run risk and uncertainty is less compared to real asset investment. That too makes financial asset investing potentially more profitable. As investors are always trying to reduce risk, uncertainty, and the potential for loss, reducing the time period during which an investment rests in an asset is one way to do so. Reducing the time period involved in investing in physical goods or assets is less viable than reducing the time period when investing in financial securities and assets.

The creation or production of financial securities eliminates the need for raw materials, almost all labor, and semi-finished good inputs—all of which have a cost. Physical goods have a ‘cost of goods’ associated with their production. But financial securities typically have little, if any, cost of production that may reduce profitability or raise risks and uncertainty that may be involved in obtaining and ensuring availability of inputs for production. Supply costs as well as supply constraints are thus minimized for financial assets. Prices of financial asset securities are determined instead in large part by demand for those assets, not by supply. The greater role of demand, and the minimal role of supply, may make financial asset prices more volatile. However, being largely demand driven, financial assets are also therefore potentially more profitable—especially in the short run and so long as prices continue to rise. Conversely, that same volatility may result in greater losses. But that only means financial asset prices may fall as rapidly as they rose, and in some cases even faster. Profits may be made from deflating financial assets as well as from their rising prices—a condition not shared by goods price deflation.

Another important enabler for the financial investment shift is the creation of an institutional structure that directs the excess liquidity, credit and debt increasingly toward financial asset investment. That institutional structure is composed of financial institutions called ‘shadow banks’.² A closely related

structure which has newly arisen is the global finance capital elite, consisting of ‘inside agents’ who manage shadow banking operations and investing, as well as their client investors who function as ‘outside agents’. Agents may assume both roles; hedge fund managers, for example, manage the investing while also providing their own capital for investment. Without this institutional structure of shadow banks and agents, the excess liquidity, credit and debt would not be redirected in as great a volume to financial asset markets. In many cases, the structure creates not just the markets but also the financial ‘engineering’ and the financial securities that are invested.

Financial asset profits tend to be greater since financial profits are taxed as capital gains, often at a much lower rate than profits from sale of goods or services. That also raises their relative profitability compared to real goods. There are virtually no ‘financial securities’ taxes of any consequence in any economy today. Because financial securities are moveable globally in an instant, their profits can also be diverted instantaneously in order to avoid taxation. Tax avoidance and fraud is thus immensely easier. Capital gains from financial investing may also be realized from deflating financial asset prices, just as from rising prices. Real investment and goods profits cannot similarly be realized from falling goods prices.

In other words, financial asset investing is simply more profitable than real asset investing in most cases—due to greater upside volatility of prices, less relative risk and uncertainty due to easier and faster access and exit from markets that are highly liquid, lower cost of production involving financial assets, less mitigation of price escalation due to supply constraints over the cycle, and more favorable taxation.

While the preceding market characteristics of financial asset inflation serve as the key enabling forces for the greater relative profitability of financial asset investing, it is the introduction of excess liquidity, credit and debt leveraging that is further accelerating the tendency of financial asset prices and profitability to outstrip real asset investment and goods prices. That accelerated tendency then feeds an abnormal shift from real to financial asset investing that is characteristic and increasingly dominant in the 21st century.

Expanding Price-Profit Gaps

The enabling causes above are reflected in a new characteristic process defining capitalist business cycles that develops over the course of the cycle ‘boom’ phase in recent decades: a growing gap between the two price systems—financial asset and real goods. That price gap in turn creates a corresponding gap in relative profits as well between financial assets and goods.

That process works something like this: as money capital is increasingly diverted to financial investment over the course of a business cycle, it stimulates the demand for financial securities which leads to a rise in financial asset prices.

And as financial asset inflation occurs, the continual growth in liquidity (as noted in the preceding chapter) permits investors to leverage still more financial asset investing with more and more debt—in turn, leading to still more financial asset demand and more financial asset inflation. Liquidity, excess credit, and debt leveraging thus feeds and accelerates the growth of financial asset investing—driven by, and in turn driving, further financial asset inflation. The upward spiral in financial asset investing and inflation continues, until financial bubble dimensions are reached and the process abruptly breaks.

A widening gap between financial asset inflation and goods price inflation thus emerges, well beyond that which normally occurs in the course of a business cycle between real goods and financial assets. The growing relative price gap means a similar gap in relative profits from goods investment and production compared to investing in financial securities. This widening price-profit gap leads to a further shift to financial assets, from less profitable real investment to increasingly profitable (price and capital gains driven) financial asset investing. In this scenario, clearly financial asset investing initially drives the processes and keeps them going and expanding.

All the foregoing basic determinants of the shift to financial asset investing have been put in place over the past three to four decades: the explosion in liquidity, the debt and leveraging practices, the proliferation of financial instruments, the highly liquid markets, the institutional network of financial brokers called shadow banks, the finance capital elite of agents who focus primarily on financial asset investing, and the digital technology (internet, digital storage, fast processing of trades, etc.) that supports the globalized financial investing markets.

How Big Is the Shift?

What is the evidence for a shift to financial asset investing? There are basically three ways to estimate, all three of which are related and approach the question from different perspectives.

1. Identify the shift to financial securities that have the characteristics of short term, price driven, capital gains-oriented investment. For example, one might identify stock-equity investment growth that is less than one year, i.e. short term capital gain-oriented, as ‘speculative’. So might equity (stock) investing that is associated with short selling, options trading, that occurs in ‘dark pools’, computerized ‘fast-trading’, hedge fund arbitraging, overnight foreign exchange currency trading, corporate high yield or junk bond investments that are associated with high risk companies or industries, as leveraged loans used for corporate acquisitions by private equity firms, and corporate debt borrowed from banks called ‘repurchase agreements’ (repos)—to name just a few of the more obvious ‘speculative’ sources and practices.

2. Identify the financial institutions that are the main sources of such investing, and their magnitude—the ‘shadow banks’ and the global shadow banking system, which predominantly moves money capital around globally to exploit short term price change opportunities for profitable capital gains among the many, proliferating, and highly liquid global financial asset markets today.³

It is important to note that the shadow banks, despite their rapid growth, are not the only institutional source of financial assets, or even speculative financial assets. The traditional, commercial (regulated) banks and financial institutions engage in financial and speculative financial investing indirectly, by providing funding for the shadow banks in not insignificant sums. So the two main forms of financial institutions—shadow and traditional—are integrated in many ways, and the lines between them increasingly blur. In fact, the regulated, commercial banking system also participates directly in financial and speculative financial investing, even though those practices have been circumscribed somewhat (not much) by efforts of government banking regulators and governments in the USA, Europe, and to a lesser extent globally, as well as by central banks responsible for commercial banks’ regulation and supervision.

However, the trend is clear: the direct speculative financial investing activity of commercial banks is being reduced in the longer term—for reasons that include government regulation of the commercial banks but also economic and market forces. What are called ‘capital markets’ are clearly eclipsing the role of traditional bank lending to non-financial business. Conversely, the financial-speculative activities of shadow banks are clearly rising and expanding as the excess liquidity in the global system continues to rise, as forms of financial securities proliferate to attract that liquidity, as highly liquid financial markets multiply worldwide, and as the wealth of the new global finance capital elite accelerates.

3. Apart from estimating the growth of financial securities or the magnitude of total assets or transactions by shadow banking, a third way to measure the growth of the shift to financial investing is to track the growth of wealth and assets owned by and associated with the new financial capital elite itself, on whose behalf the shadow banks invest and who themselves are owners and shareholders in the shadow banks.⁴

The growth of the professional investor elites is reflected in the growing wealth and investable assets held by ‘very high net worth’ (VHNWIs) and ‘ultra high net worth’ (UHNWIs) individual investors. Both groups may include in their ranks senior level corporate managers and bankers—i.e. that segment which still engages in directly managing capital through their corporations. But the largest segment is composed of individuals who are professional investors (directly or indirectly associated with their shadow banks or just independent investors, who may invest in financial assets through the shadow banks or even directly in financial markets without the intermediary of the shadow bankers).

The explosive growth of shadow banks, and the rising numbers and asset wealth growth of the new finance capital elite (VHNWIs and UHNWIs), represent a major structural change in the nature of global finance capital in the 21st century. This change did not occur overnight. It is the consequence of decades of increments of quantitative structural change in the structure of global finance in the 21st century.

The Unstable Financial Asset Markets

The shift to financial asset investing leads to price bubbles, subsequent financial asset deflation when the bubbles burst, and in turn to instability, first financial and then transmitted to the real economy. As the total changes in asset values for the selected markets below suggest, the growth in financial investing could not have been possible without the massive increase in liquidity, credit, and leveraged debt that enabled it. Behind the asset inflation lies the debt—and therefore growing fragility—that has made it possible. Should asset prices and income for servicing the debt subsequently decline—a process that has already begun in a number of the markets—then the debt enabled fragility will be intensified by the negative income effects as well.

The following is a short list of select financial asset markets that now exhibit elements of a bubble or, because of their strategic position in the overall credit system and potential for contagion to other credit markets, pose a growing risk capable of precipitating, or serving as a contagion-transmission source, for another major financial instability event before the current decade ends:

At-Risk Unstable Financial Asset Markets

Financial Asset	\$ Asset Value 2007	\$ Asset Value 2014
<i>STOCK MARKETS</i>		
Equity Markets (US)	\$14.4 trillion	\$26.1 trillion
Equity Markets (China)	6090 (index high 10/07)	3050 (low 8/15)
<i>BOND MARKETS</i>		
Corporate Bonds (global)	\$5.4 trillion	\$7.8 trillion
Hi Yield Junk Bonds (US)	\$1.0 trillion	\$1.3 trillion
Hi Yield Junk Bonds (Europe)	\$20 billion	\$600 billion
US Treasury Bonds	\$4.5 trillion	\$12.8 trillion
Municipal Bonds (US)	\$2.6 trillion	\$3.7 trillion
<i>EMERGING MARKETS</i>		
Emerging Markets Corporate Debt	\$5.5 trillion	\$18 trillion
Emerging Markets \$ Dollar Bond Debt	\$135 billion	\$1.0 trillion

Financial Asset	\$ Asset Value 2007	\$ Asset Value 2014
Emerging Markets Total \$ Dollar Debt	\$900 billion	\$2.6 trillion
<i>CHINA MARKETS</i>		
Local Govt. Finance Vehicles (China)	\$550 billion	\$3.8 trillion
Private Corporate Debt (China)	\$2 trillion	\$11.8 trillion
Wealth Management Products (China)	\$350 billion	\$2.9 trillion
Entrusted Loans (China)	\$272 billion	\$2.9 trillion
China Corporate \$ Dollar Debt	\$45 billion	\$367 billion
<i>US & EUROPE MARKETS</i>		
Defined Benefit Pension Funds (US)	\$9.1 trillion	\$11.1 trillion
Municipal Bonds (US)	\$2.6 trillion	\$3.7 trillion
Student Loans (US)	\$548 billion	\$1.3 trillion
Repurchase Agreements (US)	\$3.1 trillion	\$3.7 trillion
Mutual Funds (US)	\$6.9 trillion	\$12.6 trillion
Exchange Traded Funds (US)	\$700 billion	\$2 trillion
Leveraged Loans (US)	\$100 billion	\$628 billion
CoCo Bonds (Europe)	\$0	\$288 billion
Government Debt (Europe)	\$7.4 trillion	\$12.3 trillion
<i>SELECT GLOBAL MARKETS</i>		
Forex Trading (total)	\$3.2 trillion/day	\$5.3 trillion/day
Forex Trading (Retail)	\$45 billion/day	\$400 billion/day
Pension Funds (global)	\$20 trillion	\$36 trillion
OTC Derivatives (global-gross value)	\$15 trillion	\$21 trillion
CDS Indices Options ('swaptions')	\$40 billion	\$3.1 trillion
Repurchase Agreements (global)	\$7 trillion	\$4.3 trillion
Securitized Assets (US & Europe)	\$1.45 trillion	\$1.85 trillion
Securitization New Issues (US)	\$1.0 trillion	\$1.2 trillion
Securitization New Issues (Europe)	\$912 billion	\$243 billion

Where Is the Next Financial Fault Line?

Global Equity Markets

In the past year the stock markets in China erupted, contracting by nearly 50% in just three months, after having risen in the preceding year by 130%—truly a 'bubble event'. That collapse, commencing in June 2015, continues despite efforts to stabilize it. Chinese bankers then injected directly \$400 billion to stem the decline. Including other government and private sources, estimates are that no less than \$1.3 trillion was committed to prop up stock values. So far it has

produced little success, with more than \$4 trillion in equity values having been wiped out in less than four months.

Another \$500 billion in foreign currency reserves were committed by China to prop up the currency, the Yuan, which has declined in tandem with its stock markets. To finance its efforts to support its currency, China then began to sell its large pile of US Treasury bonds. Nevertheless, capital continues in 2015 to flee China in large volumes in the wake of the stock contraction, expectations of more currency disinflation, an initial devaluation by China of the Yuan, and a general expectation of more of the same.

Both Chinese stocks and foreign exchange effects spilled over to other equity and currency markets throughout Asia, as well to stock markets in the US, Europe and other EMEs. In the case of the US and Europe markets, the contagion effect has not been that severe. Other countervailing forces, estimated around \$150 billion, also exist in US-Europe-Japan—i.e. the potential of more QE and suspension of US interest rate hikes—that have offset the initial China contagion effects. Not so, however, in the EMEs where financial assets in stocks and currencies followed the Chinese trajectory more closely.

The stock and currency declines in China and the accelerating pace of capital flight from China will likely more than negate any future efforts by China to stimulate its real economy, already slowing noticeably. Money capital flows out of China perhaps faster than China's central bank and state banks will try to pump it in. Should China's stock markets decline another 10% to 20%, the financial markets in and out of China will experience even greater contagion effects and become potentially severely unstable.

Meanwhile, European, Japanese and US stock markets remain largely driven by the prospect of continuing QE, delays in US interest rate hikes, historic levels of corporate buybacks of stock, and record merger and acquisition activity—all of which provided a floor under artificially maintained stock levels. However, these forces may eventually be overwhelmed by China-EME market contractions. Contagion effects from the latter may eventually play a larger role in the 2015 US-European-Japanese stock financial asset deflation.

Except in the case of China, however, instability in global equity markets is not the potentially most severe source of financial instability in today's global economy. That dubious distinction will likely reside with the bond markets. Globally stock markets represent about \$40 trillion in value. Global bond markets, in contrast, equal at least two and a half times that with more than \$100 trillion in assets. A bond market crash, even in one of its segments, could easily spread quickly to other bond segments and in turn other financial assets quickly as well, resulting in a crisis far worse than 2008-09.

Global Bond Markets

Several segments of global bond markets are prime candidates for

precipitating a financial instability event of major dimensions. One is the high yield or 'junk' bond market in the US and Europe. Another is the excessive corporate bond debt escalation in Emerging Markets, especially that increasingly growing sub-segment of EME bonds issued in dollars. Massive issuance of corporate bond debt in China and what are called 'CoCo' bonds in Europe should be added to the list. Sovereign bonds is another area of bond instability, especially in Latin America, Africa, and in the Eurozone southern periphery (especially Greece, Italy, Portugal-Spain) and even in that region of the Eurozone referred to as 'Emerging East Europe', including Ukraine. Longer term, the US Treasury bonds market might be added to the bond list of prime candidates for instability, given the emerging issues of growing Treasury bond volatility and concern over liquidity should T-bond transactions accelerate in a crisis.

Hi Yield junk bonds in the US, and to a lesser extent Europe where they are growing especially fast, are perhaps the most unstable—along with EME and China corporate bonds. The junk bond segment represents bonds issued at high interest rates by the more financially strapped companies who cannot raise money through investment grade bonds or obtain bank loans. The bonds are typically short term borrowing earmarked for long term investing, a dangerous combination should bond prices begin to fall rapidly in a crisis.

Within the junk sector in the US, a large proportion of the bonds have been issued to fund expansion of the shale-gas fracking industry which is now in severe contraction. Junk defaults have doubled in the US compared with the past year, and the default rate is forecast to double in 2015, according to bank research projections. As companies default and go bankrupt in oil and energy, the instability will result in price instability transmitted to other US junk bond segments. And as the US junk bond market contracts in general, it can easily spill over to Europe and to EME markets that have a similar 'high cost, short term' bond composition. While Europe has previously not been a big market for issuing high yield corporate bonds in the past, the market has there has accelerated especially fast since 2008 in terms of growth, from a mere \$20 billion that year to \$600 billion in the past year, as the traditional bank lending has declined and weak companies desperate for financing have turned to junk bond issues.

The escalation of corporate bond debt in EMEs has been even more unprecedented. In the case of Latin American EMEs in particular, a large (and growing) proportion of that debt is also issued in US dollars (unlike in China, where the majority of corporate bond debt is in its local currency). The special problem this presents is, since the debt is in dollars, that debt must be repaid in dollars to investors. But if EME economies are in recession or slowing rapidly and global trade is stagnating—both of which are now the case—it means EMEs can't earn from increasing export sales to the US or other countries requiring payment in dollars, the necessary income with which to make the dollar denominated payments on their bonds as they come due.

Government bond debt in the EMEs is yet another potential severe point of instability. This is true in particular of those EMEs that have been heavily dependent on ‘servicing’ or paying their sovereign debt from income earned from oil and other commodity sales. As prices for both have deflated dangerously and as demand for their oil and commodities have collapsed simultaneously, many of the EMEs are now approaching default conditions. Latin American EMEs—Venezuela, Brazil, Argentina, Ecuador—and African EMEs like Nigeria and others in Asia will soon experience growing instability in their sovereign bond markets.

As for European sovereign bonds, especially in the Euro periphery, their level of debt has not been significantly reduced since 2009, while in Greece, Italy, and elsewhere Eurozone government bond debt still continues to rise. Ukraine government bonds represent a special ‘black hole’ for Europe, with thus far no end in sight of the need for financial support to keep Ukraine’s bond markets, government and private, from further collapse near term.

In the case of US Treasury bonds, it may seem counter-intuitive that this traditional safest haven for bond investing is a candidate for instability, even longer term. But it is. It is not just that the US Treasury market has exploded from \$4.5 to nearly \$13 trillion in assets since the 2008 crisis. The problem is that structural changes in the US financial system in recent years have created increasingly volatile liquid markets for US government bonds, often marketed by high risk-taking shadow bankers. A potential crisis point is reflected in the increasing use of these bonds by corporations to borrow short term in US repurchase agreements, or Repos, market to fund longer term investments.

With Repos, a company puts up its government bonds as collateral to borrow cash short term from investors, often shadow bankers. Should short term investments collapse in price, liquidity for selling the bonds could prove significantly insufficient, thereby driving down the price of Treasuries to excess levels and causing bond rates to rise. The Repo market (see below) is thus a serious weak point in the US financial system and US bonds. US Treasury markets are thus subject to potential instability should the Repo market crack—as it did in 2008 in the case of Bear Stearns and Lehman Brothers investment banks, which had borrowed heavily and become dependent on Repo financing. They went under when the Repo market shut down for them. The vast increase in the Treasury markets of nearly \$9 trillion, much at low interest rates, will pose a related problem as the US government needs to refinance them in coming years, almost certainly at much higher rates of interest. Short period, massive escalations of multi-trillion dollars in asset values almost never end well—as China’s stock market crash, the subprime housing bond market before 2007 and the tech dot.com bust of 2001 all have illustrated.

As will be noted in more detail below, corporate bond debt has exploded to unsustainable levels in China as well—just as China’s stock markets had. While

not yet dollar denominated to a great extent, the rise in volumes of Chinese corporate bond debt since 2008 is so huge that the money capital that will be needed to refinance it all in the near time raises serious questions whether Chinese private corporate debt can ever be successfully refinanced. In 2018 alone, 5 trillion Yuan (about \$800 billion) will need to be refinanced, or rolled over, according to Chinese government banking reports; hundreds of billions of dollars more as well, before and after 2018.

Given the especially large volumes involved and questionable repayment problems on the horizon—EME corporate bonds, Chinese corporate debt, bonds associated with Repo markets, government bonds in commodity-dependent EMEs, and Euro periphery government bonds all reflect serious and growing ‘cracks’ in global bond markets that are expanding.

Emerging Markets Corporate Debt

EME corporate debt represents a problem not only of excessive issuance of corporate bond debt, both in domestic currencies as well as in dollars, but non-bond debt—i.e. corporate loans—as well. In Latin America, dollar debt composition is especially a problem. In some countries, like Mexico, the majority of the debt is issued in dollars. Even after subtracting China from the escalation of corporate debt from \$5.5 to \$18 trillion in EMEs since 2007, EME debt issued in dollars has risen by almost \$2 trillion in the non-China EME sector. In China, corporate debt in general has risen from \$2 trillion to about \$12 trillion. So non-China EME corporate debt has nearly doubled, from \$3.5 to \$6 trillion while China’s has risen six-fold. Such magnitudes of corporate debt escalation cannot but end poorly.

The same risks apply with regard to making payments on this debt for EMEs, whether involving bond debt or loan debt. Loan debt is of even greater volume and thus a problem and potential source of financial instability, as repayments become more difficult as EME economies falter and slip into recessions.

Chinese Financial Markets

Compared to other EME financial markets, China’s financial markets are potentially even more unstable, and because of the sheer size of China’s economy and markets, are even more capable of precipitating a generalized global financial crisis. China’s equity and corporate bond markets have been noted above, but there are additionally three big financial markets that are particularly unstable in China today—Local Government Financial Vehicles (LGFVs), Wealth Management Products (WMPs), and debt associated with what are called ‘Entrusted Loans’. In all three markets, Chinese shadow banks are deeply involved in providing the credit and therefore excessively leveraged debt that makes these three especially unstable.

LGFVs are the way in which local governments in China have financed infrastructure and commercial and residential construction spending beyond the financing provided by Chinese government-operated banks. Much of the LGFV financing has been arranged through shadow banks. Local governments have then sold real estate thus obtained through forced sales from private owners to make payments on the debt. The problem is that land sales have been largely used up but the debt remains. In the process of debt escalation, real estate prices became a bubble. Now they are deflating, raising the real debt previously incurred while reducing the income source (real estate land acquisitions) for making debt payments. The LGFV debt was roughly 20% of China GDP in 2007, or \$550 billion; it rose to 40% and \$3.8 trillion by 2014.

It is estimated that 30% of the more than \$3 trillion in all 'nonperforming' debt in China today from all sources is non-performing LGFV debt. That means debt payments are not being made and more than \$1 trillion in LGFV debt is in technical default. The government solution has been to rollover the debt at lower interest rates. Whether it can continue to do so, as more than \$7 trillion in such debt must be refinanced during 2016-2018, remains to be seen. The potential contagion effects of LGFV defaults starting in 2016 may prove significant, both within China and throughout the rest of the global economy.

A second major financial asset of great potential instability are the Wealth Asset Products or WMPs. These are also provided in significant degree through shadow banks. They represent bundled asset products sold to wealthy investors—comprised of roughly one third of stocks, one third local government debt, and one third industrial loans of small and medium businesses and state enterprises that are financially in need of private funding. The debt is opaque and held 'off balance sheet', not on the books of banks or other institutions. Like LGFVs, the escalation in such financial assets has been from just several hundred billion in 2007 to \$2.9 trillion in 2014. Tied to stocks and local real estate which have deflated in 2015, the WMPs have no doubt lost massive valuation as well, making them highly unstable.

A third severe problem area in Chinese financial markets involved 'Entrusted Loans', or ELs. These are associated with the major shadow bank sector in China called 'Trusts', as well as the Chinese banking system. Entrusted loans provide a kind of 'junk loan' to industrial companies in particular, especially government enterprises in coal, steel, and other commodities production, that have been in severe distress as Chinese growth has slowed and global demand for Chinese steel, etc., has declined sharply. These loans are highly leveraged and thus subject to great volatility should financial asset deflation spread between markets in China as stock markets implode, real estate values continue to decline, and LGFV and WMPs values fall further. Like LGFVs and WMPs, Entrusted Loans have surged from \$272 billion in 2007 to nearly \$3 trillion.

The three financial asset markets—LGFVs, WMPs, and ELs—combined

represent more than \$10 trillion private sector debt that is potentially highly unstable. When considered in relation to Chinese equity and general corporate debt instability, the potential for a general financial crisis in China is not insignificant. Granted, China's economy has great reserves in terms of foreign currency and assets available, and its government is capable of rapid response to major crises. However, the combined effects of all of the above may prove overwhelming in the short term, and government responses may not be able to offset the panic by investors in the short term that could lead to a major financial contraction, followed quickly by a subsequent real economic contraction by an economy already slowing in those terms.

US Financial Markets

US financial markets today are not the primary locus of instability. The massive injections by the Federal Reserve has offset the financial asset losses of most large banks and shadow banks, as well as big private investors, that occurred in 2008-09—in the process taking the losses onto its own Fed balance sheet. That private debt was not eliminated; it was only moved. Notwithstanding, there are several financial markets in the US that are candidates for financial instability.

The junk bond market was previously noted, as was the Repo market and its strategic relationship to US Treasuries and the issue of bond liquidity. Mutual funds' total assets have accelerated tremendously since the crisis as well, reflecting the extraordinary growth of financial wealth in the wake of the Fed liquidity injections and subsequent exploding values in US stocks and bonds. Mutual funds are also connected to the Repo situation, however. And should the Repo market experience significant liquidity problems, mutual funds will be exposed as well as bonds. The US government and Fed therefore are desperately trying to reform and shield the Repo and Mutual Funds markets from future instability, although they have succeeded poorly thus far in doing so.

Other growing unstable markets include those for Leveraged Loans and Exchange Traded Funds, or ETFs. The former have surged again as banks and shadow banks have been providing highly leveraged debt to companies and investors involved in historic high merger and acquisition (M&A) activity (up 179%)—which, along with corporate stock buybacks (up 287%), has been driving much of US speculative stock gains in the past year. One shadow bank alone, Blackrock, controls more than a third, over \$1 trillion, of the assets in this market. Since 2013 global M&A investing has risen to \$4.6 trillion in 2015, compared to \$2.2 trillion in 2009, according to the global research firm, Dealogic. These loans represent short term borrowing to finance long term investing, a classic condition for financial instability. ETFs are a new financial innovation that allow investors to bundle stocks, bonds, mutual funds, and other assets and 'trade' them instantaneously as if they were stocks. Because they 'link' market securities for stocks, bonds, etc. into one financial asset, they represent a kind of

securitized asset product. And because their price can change by the minute and second, ETF asset values are highly volatile and can collapse precipitously as any of the bundled asset market securities in them collapses, as they did by 30%, for example, on August 24, 2015 in the case of Blackrock.

US-defined benefit pension funds and municipal, state and local bonds are also potentially unstable. Neither have fully recovered from the last crisis. Pension funds depend upon general interest rates remaining sufficiently high to ensure returns on investment to pay for retirement benefits. But a decade of central bank zero interest rates has played havoc with pension fund returns, forcing them to search desperately for more 'yield' (returns) by undertaking risky asset investments. Public sector pension funds are further at risk due to the still largely unrecovered financial losses experienced by many states, and especially cities, school districts, and other local government entities since the 2008 crash. Some states and many cities still today remain in the red financially from financial investment losses associated with the 2008-2009 crash. The picture remains highly uneven throughout the US for US defined benefit pension funds. Some states and cities are recovering, but many still are not. Should another financial crisis erupt, municipal bond rates will no doubt rise even further, resulting in a state and local government fiscal crisis far worse than in 2008-09.

Another area of consumer finance and debt in the US is the student loan market. In recent years it has escalated from several hundred billion to more than \$1.3 trillion. While not a source of major financial instability, student debt functions already as a major drag on the real economy, and consumption in particular. In a strange arrangement, the federal government profits significantly from this asset, much but not all of which it has legislatively redirected away from the private banks.

European Financial Markets

Government sovereign loans and debt remain a major problem in the Eurozone in particular. The debt is unevenly distributed, making it politically explosive, moreover, where it is focused in particular in the Euro periphery. Eurozone monetary and fiscal policies continue to exacerbate the debt, causing government bond rates to remain excessively high in the affected economies and, conversely, driving bond rates in Germany and elsewhere into negative territory with further as yet unknown consequences for instability.

One proposed solution has been the issuance of a new security called a Convertible Bond, or CoCo bond. This new bond is designed to convert from a bond to equity in the event of a financial crisis. Because it may convert, and result in almost a near total loss as is potentially the case of equities compared to bonds, the CoCo bond pays a higher interest rate to investors. It is riskier in other words. It is a kind of government analog to junk bonds. In the desperate search for yield by many investors, they have piled into the security. However,

should a severe instability event erupt in Europe, CoCos could quickly lose much of their value.

The general government debt problem, which now after 8 years in Europe has not abated but actually continued, combined with Europe's stagnant economic real growth, has resulted in a high level of non-performing debt remaining on Euro bank balance sheets. Non-performing loan and bond debt in the Eurozone is estimated by some to be as high as \$1 trillion. As in China's case, and increasingly for EMEs in general, companies with a high level of current non-performing corporate debt typically become companies that default in a subsequent crisis.

Other Global Financial Markets

Two remaining financial markets of general global relevance are foreign exchange currency trading (FX) and derivatives speculation.

As the data table above illustrates, FX has exploded in terms of its size since 2009, which reveals the contribution of the massive liquidity injections by central banks, a good part of which has found its way to global currency trades and speculation. The daily trading volumes have almost doubled to \$5.3 trillion in purchases of currencies daily. Much of that is done by central banks, banks, and global corporations, but a significant segment, 10% of the trading, is now 'retail'; that is, done by speculators large and small, hedge funds and even small investors who, until recently, had been financing this trade by use of credit cards. As governments continue to inject liquidity via QE they in effect create excess liquidity that fuels currency wars and volatility. And as countries attempt to devalue their currencies to gain a temporary advantage for exports, the volatility increases, drawing in more shadow bankers and speculators who feed off the volatility, making currency markets more subject to financial speculation and causing havoc to economies and economic policies.

Not least, another problem globally is the role played by derivatives—interest rate swaps, credit default swaps, and other innovative financial products—that continue to proliferate and grow and, in the process, add to potential contagion effects and further asset price volatility. Sometimes reference is made to what is called the notional value of derivatives, now in excess of \$700 trillion. The more important figure, however, is not the notational but the potential loss values measured in what is called the 'gross value' of derivatives. While not \$700 trillion, gross value and potential loss represents a massive \$21 trillion, up from \$15 trillion in 2008. In other words, derivatives and their potentially extreme financial destabilizing effects—which were clearly revealed in the 2008-09 crisis, have not been reduced. In fact, they have grown continually. And new forms of financial speculation involving derivatives have been created as well. An example is the 'swaptions' market for credit default swaps, or CDSs. It represents betting on the movements of CDS. The latter are a kind of a 'bet' that financial assets will deflate significantly, in which case a 'payoff' for the CDS is made. But swaptions

take it one step further: betting on the broad index of CDSs as a financial security itself.

Derivatives trading is growing rapidly, having reached record levels in 2014. Previously largely concentrated in the USA and UK, it has begun to grow as well in Southern Asia—in particular in Thailand, Singapore, Malaysia. Japan has begun significant volumes of derivatives trading. Europe is attempting to promote it. And China will open a trading section in Shanghai in 2015.

Securitized Financial Asset Markets

Derivatives are a form of securitization of assets, where securitization means bundling other discrete assets into a new financial asset that is then ‘marked up’ and resold independently as its own financial security. Securitized financial assets were central to the financial crash of 2008. However, as the data in the table above reveal, despite their key role in the last financial crisis and their contribution to risk and cross-market contagion, securitized financial assets have been staging a comeback, both in the USA and Europe in the past couple of years. This is especially the case for what are called ‘Collateralized Loan Obligations’, or CLOs, now the second largest segment of the syndicated corporate loan market and central to the unstable role involved with leveraged loans. In addition, ‘subprime-like’ securitization has returned to the consumer market—not in the form of subprime residential mortgages but in the fast growing subprime auto loan market in the USA. Meanwhile, in Europe a major effort is underway, under the direction of a cross-country ‘Capital Markets Project,’ to resurrect and expand securitized loans and debt markets in the Eurozone. A major securitization market program was launched in China in 2012 as well. While securitized assets, excluding derivatives, do not pose the same potential for instability as they did in 2008, nevertheless today they have been allowed to assume an increasing role once again in financial markets.

The Shift, Financial Fragility, and Instability

The preceding data show that financial asset markets have expanded rapidly, from less than \$100 trillion in 2007 to more than \$200 trillion in just the past 8 years. That expansion could not have been possible without the explosion in liquidity, credit and the extreme leveraging of debt over the course of preceding decades that has enabled financial asset price values to escalate to such phenomenal levels. That liquidity and credit-debt eventually translated into a shift to financial investing on the historic scale we are witnessing today, with all the fragility and financial instability that has accompanied it. The crash of 2008-09 has not slowed or tamed the shift and the speculation in financial asset prices that has accompanied the liquidity-debt explosion. If anything, the aftermath of conditions and policies since 2008 has in fact accelerated it.

But all the enablers of the shift and instability is only part of the story. Liquidity, credit, debt, leveraging, speculation and the super profits they have produced for the very few did not happen in a vacuum. There is a social context, an institutional framework, and profound shifts in social and class structure that have accompanied it. The liquidity had to be managed, the credit extended by some source, and the debt incurred by some borrowers for the shift to occur. A financial structure had to enable it all. The creation and proliferation of countless new highly liquid financial asset markets globally, as well the transformation and expansion of financial institutions already on hand, has created that structure. The shift additionally required the creation of divers new financial securities, with the buying and selling managed by these new institutions in these liquid markets. And, even more fundamentally, it has meant the ascendance of a new strata of finance capital elite to purchase and sell these new financial securities through that restructured global financial institutional network.

The chapter that follows addresses the restructuring of global finance in the decades since the 1970s that has created those markets, institutions, financial products, and new human agents—all of which together have enabled the shift to financial asset investing and all its consequences.

Endnotes

- 1 As will be addressed in detail in Chapters 16-18 subsequently, there is great confusion as to the relationships between real and financial asset investing among mainstream economists, which explains in large part their inability to understand how financial and real cycles interact. Mechanical Marxist economists, on the other hand, maintain the causal determinations between the two forms of investment are from real investment to financial, with the latter caused by the former.
- 2 As explained in the following Chapter 12, 'shadow banks' are not discrete entities. They are composed of unregulated financial institutions, internal divisions of regulated commercial banks dedicated to selling speculative financial securities, and are also 'shadow-shadow' institutions embedded in non-financial corporations. A better term might therefore be 'shadow banking' as an activity rather than 'banks' inferring a discrete institution.
- 3 See Chapter 12 for definitions and examples of 'shadow banks'.
- 4 See following Chapter 12 for this as well.