Endgame – The End of the Debt Supercycle and How it Changes Everything

by John Mauldin

Introduction

The Great Recession that we are in is not a typical business cycle recession. It is the end of the debt supercycle that started more than 60 years ago. The recovery time in much of the developed world is going to be measured not in months but in years, perhaps decades for some. There is no magic wand that politicians can wave to make it all disappear.

Endgame is not written in stone. The actual outcomes are path dependent. By that we mean that the paths we choose will determine the outcome but there will be no easy paths to follow. All paths will be painful.

The End of the Debt Supercycle

What is ending? The decades-long growth of debt in many countries from small manageable levels to excessive levels of debt is coming to an end. Bond markets will eventually rebel and the debt will have to be restructured or reduced. A program of austerity must be undertaken to bring the debt back to acceptable levels.

In the United States, we are nowhere near the end, as the government is stepping in where private debtors are cutting back. Total government debt continues to grow.

But there is a limit to how much debt you can pile on. As the work of Reinhart and Rogoff points out in *This Time Is Different* (2009), there is not a fixed limit for debt or some certain percentage of GDP where it all breaks down. Rather, the limit is all about confidence. Everything goes along well, and then "bang!" it doesn't.

The Beginning of the End

In 1980, most developed countries suffered from high inflation, which was the result of excessive spending and borrowing, combined with a too loose money supply. This had been 15 years in the making. Then central bankers like Paul Volcker showed they were willing to hike rates until it hurt to crush inflation. Inflation fell, and interest rates fell as well from 16% in 1980 to 3% in 2010. When interest rates fall, so does the cost of borrowing. It also means you can borrow more money and buy a larger house if you choose which a lot of people did.

In the U.S. total debt levels as a percentage of GDP grew from 150% of GDP in 1970 to 350% of GDP in 2008. This borrowing trend happened all over the developed world.

It wasn't only falling interest rates that built up the pile of debt. Americans extracted $719 billion in cash from their houses in 2005 after $633 billion in 2004 and $439 billion in 2003. Homeowners looked on their houses as golden geese that never stop laying so they simply saved less and borrowed more on credit cards to bridge the gap between their robust spending growth and meager income gains.

Loose monetary policy also helped the borrowing binge, as well as deregulation of the financial sector. The final ingredient that capped it all off was securitization and the shadow banking system which lead to the collapse.

The shadow banking system describes a vast financial network of non-banks that acted like banks. They took liquid assets and invested them in illiquid assets like mortgages. The shadow banking system could only get away with this only with the help of the ratings agencies, who should have been watching out for the investor, but unfortunately were caught up in the greed that was prevalent at the time.

Private Deleveraging and Public Leveraging Up

The beginning of the financial crisis and the end of the shadow banking system happened on August 9, 2007 when Bank Paribas said it could not value the mortgage assets in three of its off-balance sheet vehicles and that therefore the liability holders, who thought they could get out at any time, were frozen. When that happened, it kicked off a run on the shadow banking system that finally culminated in the bankruptcy of Lehman Brothers.

All the assets that had been securitized and sat on the balance sheets of money market funds would eventually make their way back to the balance sheets of banks. In order to avoid bank failures the federal government provided loans to those deemed "too big to fail."

In the past three years, debts have not been extinguished, merely transferred. Debt is moving from consumer and household balance sheets to the government. While the debt supercycle was about the unsustainable rise of debt in the private sector, endgame is the crisis we will see in the public sector debt. Real endgame is when governments begin to run into the limits of their ability to borrow money at today's low rates.

When people have too much debt, they typically default. When countries have too much debt, they have one of three options:

1. They can default on it.
2. They can inflate away the debt.
3. They can devalue and hurt any foreigners who are holding the debt. (This is really just a variant of inflating it away.)

Although the world's governments have tried to cope through this crisis, the more difficult decisions are ahead of them, not behind them. It is global endgame. For some countries, the end will mean default, for others inflation, and yet for others devaluation. Each country will be different.

Let's Look at the Rules

The basic equation that summarizes a nation's gross domestic product is:

$$GDP = C + Inv + G + E - Imp$$

Gross domestic product of a country is equal to its total consumption (personal and business) plus investments plus government spending plus exports minus imports. It is true for all countries and all times. There are no exceptions.

What happens if C drops? That means absent something happening elsewhere in the equation, GDP is going to drop. That circumstance is typically called a recession.

Keynesian economists argue that the correct policy response is to boost the G through fiscal stimulus, allowing consumers and businesses time to adjust and recover, and to gradually remove the stimulus as the economy returns to its normal growth trajectory. As an added measure, it helps if the central bank will become more accommodative, with lower interest rates and an easy-money policy to give further stimulus to business and consumers. In most instances, these policies have worked to help bring an economy through a recession.

Delta Force

There are only two ways that you can grow your economy. You can either increase your working-age population or increase your productivity. There is no magic fairy dust you can sprinkle on an economy to make it grow. To increase GDP, you actually have to produce something.

The Greek letter delta (Δ) is the symbol for change. So if you want to change your GDP you write that as:

$$\Delta GDP = \Delta Population + \Delta Productivity$$

That is the change in GDP is equal to the change in population plus the change in productivity. A recession is basically a decrease in production (as normally, populations don't decrease).

In the U.S., business startups have produced nearly all the net new jobs over the last 20 years. So if you want your economy to grow, you must have an economic environment that encourages private business, especially start-ups.

Another important equation:

Savings = Investments

The savings of consumers and business equal that which is available to business investment, which in turn helps to grow the economy. But there is a rather large but.

Those savings are what finances government debt. Unless a central bank elects to print money, government debt must be financed by the private sector. That means if the fiscal deficit is too large, it will crowd out private investment. But as we have seen, private investment is what fuels productivity growth, so if you don't have enough savings to satisfy private investment needs, you are choking off productivity growth and the creation of new jobs.

Killing the Goose

There are only three sources of funds for our government's fiscal deficits: an increase in taxes, increased savings put into government bonds, or the Fed monetizing the debt, or some combination of all three.

Leaving aside the monetization of debt for later, using taxes or savings to handle a large fiscal deficit reduces the amount of money available to private investment and therefore curtails the creation of new businesses and limits much needed increases in productivity. We are killing the goose that lays the golden eggs if we don't deal with our deficits.

But it's More Than the Deficit

At some point, government spending becomes an anchor on the economy. The current policy of stimulus makes less and less sense. Charles Gave of GaveKal Research explains:

> This is the law of unintended consequences at work: if an individual receives $100 from the government, and at the same time the vaule of his stock portfolio/house falls by $500, what is the individual likely to do? Spend the $100 or save it to compensate for the loss he has just had to endure and perhaps reduce his consumption even further?
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> **The only way that one can expect Keynesian policies to break the "paradox of thrift" is to make the bet that people are foolish, and that they will disregard the deterioration in their balance sheets and simply look at the improvements in their income statements.**

> This seems unlikely. Worse yet, even if individuals are foolish enough to disregard their balance sheets, banks surely won't; policies that push asset prices lower are bound to lead to further contractions in bank lending. **This is why stimulating consumption in the middle of a balance sheet recession is worse than useless, it is detrimental to a recovery.**

Not Everyone Can Run a Surplus

Let's divide a country's economy into three sections: private, government, and exports. If you play with the variables a little, you get the following equation:

Domestic Private Sector Financial Balance + Government Fiscal Balance – Current Account Balance (or +Trade Deficit/-Trade Surplus) = 0

By domestic private sector balance, we mean the net balance of businesses and consumers. Are they borrowing money or paying down debt? Same for the government: Is the government borrowing or paying down debt?

The implications are simple. The three items have to add up to zero. That means you cannot have both surpluses in the private and government sectors and run a trade deficit. You have to have a trade surplus.

Let's say the private sector runs a $100 surplus (they pay down debt), as does the government. Now, we subtract the trade balance. To make the equation come to zero, it means that there must be a $200 trade surplus.

This has profound implications for those countries (the U.S. included) struggling to deal with large government deficits, large trade deficits, and a desire on the part of individuals and businesses to reduce their debt while wanting the government to curtail its spending. Something in that quest has to give.

The Burden of Lower Growth and More Frequent Recessions

There are three large structural changes that have happened slowly over time that we expect to continue going forward. The U.S. economy will have:

1. Higher volatility
2. Lower trend growth
3. Higher structural levels of unemployment

Going forward, higher economic volatility, combined with a downtrend in economic growth, will create more frequent recessions. The last three economic expansions were almost 10 years, but in previous decades, they averaged four or five years. From now on, we are apt to see recessions every three to five years.

We are also seeing a decline over the last four business cycles in trend growth across GDP, personal income, industrial production, and employment.

There are two main types of unemployment: structural and cyclical. In this downturn, we have seen fewer hours worked and lower pay; these are cyclical. More ominously has been the structural decline in the civilian participation rate. There has been an extreme rise in the number of long-term unemployed. Because the U.S. economy needs to shift from consumption, real estate, and finance toward manufacturing, many of the unemployed will not return to their old jobs. The structural problems with unemployment are also reflected in the very large gap between the official unemployment rate of 9% and the actual rate of people out of work estimated at around 17%, which includes underemployed and discouraged workers.

This Time Is Different

"Over the past eight centuries and in the data on them has led us to conclude that the most commonly repeated and most expensive investment advice ever given in the boom just before a financial crisis stems from the perception that "this time is different." That is that the old rules of valuation no longer apply." By Reinhart and Rogoff, *This Time is Different*

This time may seem different, but all too often a deeper looks shows it is not. History does point to warning signs that policy makers can look at to assess risk – if only they do not become too drunk with their credit bubble fueled success and say, as their predecessors have for centuries, "This time is different."

Just as an individual can go bankrupt no matter how rich she starts out, a financial system can collapse under the pressure of greed, politics, and profits no matter how well regulated it seems to be.

Perhaps more than anything else, failure to recognize the precariousness and fickleness of confidence – especially in cases in which large short term debts need to be rolled over continuously – is the key factor that gives rise to this-time-is-different syndrome. **Highly indebted governments, banks, or corporations can seem to be merrily rolling along for an extended period, when bang! – confidence collapses, lenders disappear, and a crisis hits.** But the exact timing can be very difficult to guess, and a crisis that seems imminent can sometimes take years to ignite.

The Future of Public Debt

Our argument in *Endgame* is that while the debt supercycle is still growing on the back of increasing government debt, there is an end to that process, and we are fast approaching it. It is a world where not only will expanding government spending have to be brought under control but also it will actually have to be reduced.

If public debt is unsustainable and the burden of government budgets is too great, what does this mean for government bonds? The inescapable conclusion is that government bonds currently are a Ponzi scheme.

Failure to get our fiscal problems in order will raise the chance of an unexpected and abrupt rise in government bond yields at medium and long maturities, which would put the emerging recovery at risk. It will also complicate the task of The Fed controlling inflation in the immediate future.

The risk that no one talks about is the level of foreign investment in some of these countries and the consequent rollover risk. By this we mean that when the bond comes due, you have to roll over that bond into another bond. If the party that bought the original bond doesn't want your bond risk anymore, you have to find someone to buy the new bond. It is not just the new debt; they have to find someone to the old debt too.

The Elements of Deflation

The classic definition of deflation is a period of actual decline in the general price level and an economic environment this is characterized by inadequate or deficient aggregate demand.

1. **Excess capacity and unemployment** – deflation can happen because the real economy has tremendous slack and there is excess production capacity. It's near impossible to raise prices when your competitors have plenty of capacity to increase productivity. The world is awash in excess capacity right now. We also see high and chronic unemployment which reduces demand as people simply don't have the money to buy things.

2. **Wealth effect in reverse** – deflation is also associated with massive wealth destruction. Loss in value of home prices, the abrupt decline in the world's stock markets, higher unemployment levels draining savings all have contributed. An increase in savings rates occurs as people try to repair their balance sheets.

3. **Collapsing home prices** – Falling home prices and a weak housing market are one more element of deflation. This is happening all over the developed world.

4. **Deleveraging** – massive deleveraging comes with a major credit crisis. Not only are consumers and businesses reducing their debt but also banks are reducing their lending. Deflation reduces the value of collateral for loans,

reducing creditworthiness of firms and forcing them to sell assets or in some cases to foreclose on properties worth less than their debt.

5. **Collapse of money and lending** – When the money supply is falling in tandem with a slowing velocity of money that brings up deflationary issues. Current global real money growth is close to zero.

6. **Government austerity** – In the short run, reducing government spending is deflationary. The danger that premature fiscal and monetary tightening will end up tipping the world economy back into recession is a real possibility.

The Velocity of Money

The velocity of money is the average frequency with which a unit of money is spent. The gross domestic product is a function of not just the money supply but how fast the money supply moves through the economy. Stated as an equation, it is P = MV, where P is the price of your gross domestic product (nominal, so not inflation-adjusted here), M is the money supply, and V is the velocity of money.

If velocity slows down by 10 percent, then the money supply (M) would have to rise by 10 percent just to maintain a static economy. But that assumes you don't have 1 percent population growth, 2 percent for productivity growth, and a target inflation of 2 percent, which means M (money supply) needs to grow about 5 percent a year even if V was constant. And that is not particularly stimulative, given that we are in a relatively slow growth economy.

A Slowdown in Velocity

Why is the velocity of money slowing down?

1. We no longer have all sorts of fancy financial vehicles like CDOs, and CMBSs making money move around the economy faster. The absence of these financial innovations is slowing things down. If the money supply had not risen significantly to offset that slowdown in velocity, the economy would already be in a much deeper recession.

2. Velocity falls when companies and individuals deleverage. Individuals and businesses are paying down their debts and taking fewer loans. Banks are reducing their lending and governments are stepping in to take up some of the slack on the debt side, but there is a limit to how much debt even large governments can follow.

Gold and the Velocity of Money

When gold bugs see a rise in the supply of money, they think that translates into a rise in the price of gold, as that should bring about inflation. And they would be right if monetary velocity remained constant. But if the velocity of money falls, you could have the supply of money rising, perhaps substantially, and prices paid for gold actually falling if the velocity of money is falling faster than the rise in the money supply. This drives gold bugs nuts.

Gold is not so much an inflation hedge as a currency hedge. Historically gold has not correlated all that well with inflation. Gold is a very useful instrument when people lose confidence in a currency or in the central bank that controls that currency to maintain a reasonable purchasing power. Gold of late has gone up against the U.S. dollar, but it has gone up much more percentage-wise against the euro and the pound sterling.

A Dose of Inflation

The world is drowning in too much debt, and it is unlikely that households and governments everywhere will be able to pay down that debt. Doing so in some cases is impossible, and in other cases it will condemn people to many hard years of labor to be debt-free. Inflation, by comparison, appears to be the easy way out for many policy makers.

Reinhart and Rogoff tell us that the typical pattern is for banking crises to lead to sovereign defaults and for sovereign defaults to lead to inflation.

BANKING CRISIS → SOVEREIGN DEFAULT → INFLATION

Banking crises unleash powerful deflationary forces of deleveraging and failing monetary velocity. In this environment, people, corporations and eventually governments are unable to pay their debts and default. Government defaults typically lead foreigners to sell the local currency, and you get a currency devaluation. A devaluation makes prices for imported goods more expensive and leads to inflation. At the same time, governments and central banks fight the downturn with more expansive monetary policies, which leads to higher inflation.

The Characteristics of Hyperinflation

Hyperinflation occurs when money grows greater than 50 percent from one month to the next. Hyperinflation only happens with paper currencies.

Professor Peter Bernholz, from the University of Basel *wrote Monetary Regimes and Inflation.* He concluded that deficits amounting to 40 percent or more of expenditures cannot be maintained and lead to high inflation or hyperinflation. Currently the U.S. deficit is over 30 percent of all government spending. Japan and the U.S. are not far from levels that have preceded hyperinflation. The reason these two countries are not experiencing hyperinflation is because their central banks are not monetizing most of the deficit. If they would do that we would likely be experiencing hyperinflation.

Hyperinflation is not caused by aggressive central banks. It is caused by irresponsible and profligate legislatures that spend far beyond their means. Monetizing debt is a two-fold process: 1) the government issues debt to finance its spending; and 2) the central bank purchases the debt from the public. The public is left with an increased supply of base money (sounds like Quantitative Easing to me, DGM).

The Problems of Inflation

There are two main problems with trying to use inflation to get rid of the value of real debt.

1. Investors would recognize even a stealth inflation policy and quickly push up yields.

2. Many governments have tied pensions and salaries to inflation so increases in government spending would rise with inflation. Nearly half of all U.S. federal outlays are linked to inflation, so higher inflation means higher deficits.

Just a one percent increase in inflation over what the CBO estimates for inflation over the next decade would increase budget deficits by $700 billion.

United States Outlook

As stated previously, if you increase government spending (the G in our equation), it will have a positive effect in the short run on GDP, but not in the long run. In essence, the increase in G must be made up by savings from consumers and businesses and foreigners.

But an increase in G does not enhance overall productivity. Government spending may be necessary, but it is not especially productive. You increase productivity when private businesses invest and create jobs and products. But if government soaks up the investment capital, there is less for private business.

You run large deficits, sucking the air out of the room, and you raise taxes, taking money from productive businesses and reducing the ability of consumers to save. Then you go for 20 years with little or no economic or job growth (a.k.a., the Japanese disease).

We will need 15 to 18 million new jobs in the next five years, just to get back to where we were only a few years ago. Without the creation of whole new industries, that is not going to happen. The jobs we need will not come from government transfer payments. It is business start-ups that are needed, as that is where the real growth in net new jobs are. And that means investment. But if we allocate our investment money to government bonds, if we tax the capital needed by the entrepreneurs who invest in and start businesses, we delay that return to growth.

The Glide Path Option

We need to establish a glide path to sustainable deficits or better yet to marginal surpluses. If Congress and the president decided to lay out a real plan to reduce the deficit over time, say five or six years, to where it was less than nominal GDP, the bond market would behave. Reducing deficits by $150 billion a year through a combination of cuts in growth and spending would get us there in five years. The problem is there is real temporary pain associated with this option.

$$GDP = C + I + G + (E - I)$$

Absent a growing private sector, if you reduce G (government spending), you also reduce GDP in the short run. You have to take some pain to do that. But you would avoid worse pain down the road: a bubble of massive federal debt that has to be serviced will be very painful.

The glide path option means that structural unemployment is going to be higher than we like. And the large tax increases that come with this option will be a drag on growth. If we cut corporate taxes enough it will make our corporations more competitive on a global basis, which will be a boost for jobs.

This is not a normal recession. We are going to have to deal with the pain of reduced returns on traditional stock market investments, eventually a lower dollar against most currencies (other than the euro, the pound and the yen), low returns on bonds, European-like unemployment, lower corporate profits over the long term, and a very slow growth environment. But if we choose this path, we will get through it.

Investing and Profiting from Endgame

How should we invest? In reality I believe we are in store for both: deflation followed by inflation.

If you believe in deflation, then you should seek investments that offer a higher chance of return of capital than return on capital. Investors will seek a low yield with a high degree of confidence they will get their money back. If you believe in deflation, U.S. Treasuries offer great value.

The best ways to invest if you believe that **deflation** will predominate:

- Buy treasury bonds.
- Buy income producing securities.
- Buy the dollar. Cash in king in a deflationary environment.

- Sell equities.
- Sell homebuilder and selected related stocks.
- Sell selected big-ticket consumer discretionary equities. Frugality will lead people to spend less.
- Sell banks. Demand for loans fall with deflation and interest rates fall. It is difficult for banks to be profitable in this environment
- Sell consumer lenders' stocks.
- Sell most commodities.

If you believe in inflation, then you should seek to buy things that the government cannot print or create at will. The following list highlights the best ways to invest if you believe **inflation** will predominate:

- Precious metals: gold, silver, platinum, palladium.
- TIPS (or real return bonds). Make sure that the yield you are paid is real, not nominal. High inflation erodes returns for bonds.
- Commodity currencies: Canadian loonie, New Zealand kiwi, Aussie dollar, Brazilian real and Norwegian krone.
- Basic material stocks and energy, as well as consumer staples.
- Income producing real estate with long-term fixed rate loans (my suggestion).

So what's the final message? Work hard, save, watch your spending, and think about whether your job is the right one if we have another recession. Pay attention to how profitable the company you work for is, and make yourself their most important worker. And know that things will get better once we shrug off the ending of the debt supercycle and hit the reset button.