Green shoots or yellow weeds?

A trifecta of risks to the early bottoming out of the recession and short-term economic recovery and to the medium-term actual and potential growth prospects of the global economy

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Recent data suggest that the rate of economic contraction in the global economy is slowing down and we are closer than six months ago to the trough of the recent severe global recession. But while the rate of economic contraction is now lower than the free fall and near-depression experienced by many economies in Q4 of 2008 and Q1 of 2009 the recent optimism that "green shoots" of recovery will lead to the recession to bottom out by the middle of this year and that recovery to potential growth will rapidly occur in 2010 appears to be grossly misplaced. A careful assessment of the data suggests that rather than green shoots there are plenty of yellow weeds both in the short term and in the medium term. Here there are three important ways that our views differ from the current optimistic consensus.

First, the current deep and protracted U-shaped recession recession in the US and other advanced economies will continue through all of 2009 rather than reaching a trough in the middle of this year as expected by the current optimistic consensus.

Second, rather than a rapid V-shaped recovery of growth to a rate close to potential US and global economic growth will remain sluggish, sub-par and well below trend growth for at least two years into all of 2010 and 2011; a couple of quarters of more rapid growth cannot be ruled out as we get out of this recession towards the end of the year and/or early next year as firms rebuild inventories and the effects of the monetary and fiscal stimulus reach a delayed peak. But at least ten structural weaknesses of the US and the global economy will cause both a below trend growth and even the risk of a reduction of potential growth itself.

Third, we cannot rule out a double dip W-shaped recession with the wings of a tentative recovery of growth in 2010 at risk of being clipped towards the end of that year or in 2011 by a perfect storm of rising oil prices, rising taxes and rising nominal and real interest rates on the public debt of many advanced economies as concerns about medium term fiscal sustainability and about the risk that monetization of fiscal deficits will lead to inflationary pressures after two years of deflationary pressures.

Let me explain next in detail these three serious risks to the US and global economic outlook.

Note first that, after the collapse of Lehman in the fall of 2008, the global financial system went into a near meltdown – literally a cardiac arrest of the global financial system - and the global economy went into a free fall: the rate of economic contraction in Q4 of 2008 and Q1 of 2009 was at near-depression rates in most advanced economies and even in many vulnerable emerging market economies.

Peering into the abyss of a near depression finally global policy makers that had been behind the curve for most of 2007-08 – having misunderstood the severity of this financial crisis and its real effects - got religion and started to use almost of the weapons in the policy arsenal – guns, rockets, missiles, artillery – to prevent a severe stag-deflation (a combination of a severe stagnation/recession and deflation): significant fiscal policy easing; conventional and unconventional (zero interest rates, quantitative and credit easing, purchase of private and public debts) monetary policy easing; backstop of the financial system (liquidity support, recapitalization, guarantees, insurance) in the trillions of dollars (the US alone committed $12 trillion to the financial system and already provided $3 trillion out of it) to reduce the liquidity and credit crunch; provision of massive support to emerging market economies – some of which were the accidental victims of the financial tsunami and some of which has significant policy, financial and macro weaknesses - via new swap facilities and tripling of IMF resources; policies of forbearance of the banking system to restore credit growth. In the last two months alone one can count over 150 different policy easing actions/programs around the world.

The combination of this policy equivalent of a Powell doctrine of overwhelming force together with the sharp contraction of output and production below final demand for goods and services that led to a sharp contraction of inventories of unsold goods has now led to a slowdown in the rate of economic contraction that sets the stage for a bottoming out of most economies towards the end of 2009 or early 2010.

Short-term yellow weeds – rather than green shoots – imply that economies will bottom out much later than the consensus predicts. Thus, macro news will surprise on the negative before the recessions will be over

Even so the optimists that in 2009 spoke of a soft landing for the US economy (and decoupling of the rest of the world) or a mild V-shaped 8 months recession (like the U.S. ones in 1990-91 and 2001) were proven utterly wrong while those who argued that this would be a longer and more severe U-shaped 24-month recession were correct. In the US we are already in the 18th month of a U-shaped recession; so the V is literally out of the window. If the recession were over by Q4 it will be – at 24 months - three times as long and at least six times as deep – in terms of output contraction – than the previous two. Even if it were over by Q3 it would still be – at 21 months - the most severe US recession in the last 60 years.

Since the consensus was wrong last year about a short and shallow V-shaped recession the new variant of the optimistic view is another variant of the V-shaped recession: according to the consensus the recession will be over by the middle of 2009 (i.e. in a month or, according to some, it is already over by May), positive growth will return by

Q3 and be as high as 2% by Q4 and the recovery of growth in 2010 and beyond will be rapid, sustained and close to potential growth with no risk of another economic downturn. All three elements of the new optimistic consensus are flawed.

Let us start with the talk about "green shoots" of recovery and the argument that the recession will be over by mid-year with return to positive growth by Q3. In addition to the talk about green shoots you hear similar bullish variants under the terms of "glimmers of hope", "positive second derivatives" and "signs of bottoming out, stabilization and recovery". What is the basis for the argument that the US and global recession will be over soon? Goldman Sachs – a firm that was more bearish than the consensus in 2008 – is the most sophisticated exponent of the "green shoots" hypothesis. In a paper written in mid march the research group of Goldman pointed out to four economic variables/factors/green shoots that were signaling the recession to be bottoming out: initial claims for unemployment benefits (and employment trends), retail sales, industrial production and housing conditions. Out of the four they recognized that initial claims were still high and ugly hoping that they would stabilize and contract soon while they argued that the other three were already signaling green light. Unfortunately the latest US data from the last month have dashed the hope of green shoots and showed them to be yellow weeds.

First, initial unemployment claims (specifically their important four-week average) around 650k and fell towards 610K; Goldman and Robert Gordon (a member of the NBER Business Cycle Dating Committee) even argued that historically the peak of the initial claims is always associated with the end of a recession, thus hinting that the recession was over by May or, at the latest, June. But too bad this is not an ordinary recession and too bad that bankruptcy/production cut-backs by Chrysler and GM over the summer are now likely to lead initial claims to another peak of 700K some time this summer on top of adding another 300K job losses to the already mounting ones. Even the bullishness that job losses will rapidly shrink is altogether misplaced: yes in April "only" 540K jobs were lost as opposed to the 650K of March; but if you exclude 70K temporary government worked hired by the Census private sector job losses were still a whopping 611k in April, a figure as ugly as ever. Also note that in the 2001 recession job losses averaged 150K per month (not 650K as in recent months) and that while the recession was technically over in November of 2001 job losses – being like the unemployment rate a lagging indicator - continued all the way through August of 2003 (20 months after the end of the recession) in a massive job-loss recovery (ditto in the 1990-91 recession). So while one could expect that job losses in the private sector may soon fall the near-depression levels of 600-700k per month even a fall of such job losses to a rate of 300-400k per month some time later in H2 would be still massive and much larger than in the 2001 recession. Even that slowdown in job losses implies that, most likely the unemployment rate will be 10 by the end of the summer and well above 10.5% by the end of the year and peaking around or above 11% some time in 2011. So on the unemployment front there are no green shoots, either in the present or in the likely near future; you can see only yellow or brown weeds.

Second, the optimistic view on retail sales and consumption was based on the January and February retail sales that came positive and better than expected; but after the free fall in the holiday season and given heavy discount a temporary rebound was not unlikely. Again, too bad that all the talk about green shoots in consumption and retail sales was soon smashed by a ugly March retail sales report – showing a sharp contraction – and a similarly ugly April report that showed falling sales and consumption. The green-shooters forgot about the fundamental forces dragging down the US consumer that is shopped-out, saving-less, debt-burdened (debt being 135% of disposable income), with rising debt servicing ratios (up from 10% in 2000 to 15% today), who lost 50% of its equity wealth from the 2007 peak, who has lost 25% of the value of its home (and will lose 40-45% of that value at the peak as home prices are still free falling), who cannot use its home as an ATM machine as home equity withdrawal has fallen from $700 billion in 2005 to 0 today, whose income is challenged and whose jobs are disappearing at the rate of 600-700k per month. It is true that in Q2 there may be some relief for disposable income – and a three month boost to retail sales like in 2008 - via tax cuts ($100 billion coming up), refinancing of mortgages ($20 billion savings in 2009) and the lagged effects of the fall in oil prices. But last year the $100 billion of tax cuts was mostly saved (70 cents of the dollar of it) rather than spent as consumers were worried about jobs, incomes, wealth and running down credit cards and mortgage balances. This year those worries are increased by a power of two and, like last year, at most 30 cents on the dollar will be spent. Add to this dismal outlook the fact that $20 billion of refinancing savings is spare change as household disposable income is well over $10 trillion and that gasoline prices are rising again (25 cents in the last month alone or 10% increase). So retail sales may recover temporarily in the May-July period – like they did in 2008 after the spring tax rebates; but that effect – like last year – will fizzle out by Q3. More importantly for 2010-11 the contraction of consumption and its weak recovery over the medium term and the need to rebuild depleted savings will remain a drag on households for a number of years. So expect yellow weeds for consumers both in the short term and medium term.

Third, the argument that industrial production would soon bottom out in the US and other advanced economies was based on the historical relations between the manufacturing ISM or PMIs (Purchasing Managers Index) and industrial production. In previous business cycles ISM/PMI led industrial production by about a month: so when the ISM bottoms out industrial production starts to bottom out a month later. Thus, since in all advanced economies the PMIs started to bottom out – at near depression levels – around March-April the optimistic consensus predicted a near bottom for industrial production followed by a rapid recovery as the sharp destocking on unsold inventories of Q4-Q1 would be followed by rapid restocking. But, for whatever reasons we don't fully understand yet (possibly the severity of this recession caused by massive over-leverage), the historical link between PMIs and industrial production has broken down: industrial production in the US and other advanced economies is still sharply falling – but not as fast as the near depression rates of the previous six months – in spite of the PMIs having bottomed out and started to recover. And while the ISM is now well above its near-depression level of 32 it is still well below 50 that signals a continued contraction of the manufacturing sector. So, so far the PMI have provided a "fake head" – a misleading indicator rather than a leading indicator – and industrial production is still contracting at painful – but now no longer depression - rates in most advanced economies.

Finally note that the bullish argument that industrial production will rapidly snap back to rebuild inventories once the recession has bottomed out is predicated on the assumption that final sales of domestic output will rapidly recover once they bottom out. But so far most components of final sales are still falling and have not bottomed out and once they bottom out they are unlikely to grow fast enough to require a surge in production: consumption is still falling, residential investment is still free falling, capex spending by the corporate sector is still free falling, and exports are still sharply falling. The only component of final sales that is modestly rising is government consumption. Thus, the recovery of final sales that would herald a rapid recovery of production is still more in the minds and hopes of the green shooters than in the reality of the recent data. In summary, there are ugly yellow weeds so far rather than green shoots as far as industrial production is concerned.

Fourth, the green-shooters pointed out to the sign of stabilization of the housing recession. Let us leave aside that the optimists – including Bernanke, Greenspan and 80% of sell side research – has been repeating the refrain that the housing slump will bottom out soon since early 2007 (while totally missing its bust that started in mid-2006) and have been proven wrong quarter after quarters for all of 2007, all of 2008 and all of the current 2009. The reality is that, in spite of all the talk of green shoots in housing there is very little evidence for it so far and home prices need to fall at least another 15 to 20% before they bottom out.

This author was the biggest bear on housing in the middle of 2006 when he predicted the worst housing recession since the Great Depression, a fall in housing starts and sales of 50% and a fall in home prices of 20%. But even the biggest bear on housing turned out to be too optimistic: housing starts did not fall 50% (from 2 million to 1 million annual) but to 500K – or 75% from peak - and they are still falling (as well as building permits); new home sales fell even more than starts and are now hovering – for single family homes – around depression levels of 350k. Home prices have fallen –based on Case and Shiller – by 25% from the peak and they are still falling at an annual rate of 20%.

Of course, after three years of the most severe housing depression ever quantities in the housing markets are so low (75 to 80% from peak) that they may soon bottom out: both starts and new home sales are now well below long term averages. But even quantities may not bottom out until the end of the year for two reasons. One, residential investment was still falling at an annual rate above 30% in Q1 and both starts and building permits are still falling. Building permit and starts need to stabilize and start growing again for a while before home completions – the measure of supply of new homes – bottom out a few months later and then start to recover. So, residential investment will be a negative drag on GDP at least until Q4 of 2009 if not later. Two, some measure of price affordability are better now but many others are not: real home prices and price-rental ratios suggest the need for another 15-20% fall in home prices and actual prices are still falling – at an accelerated, not decelerated, rate of 20%. That is important because today

0% down-payment mortgages of the housing craze/bubble are out. Anyone who wants to buy a home needs to put down a 20% of equity. But why would anyone want to buy today a home – even one that he/she could afford – if home prices will fall another 15-20% before they bottom out and thus this home equity will be totally wiped out by 2010? It is rather rational and better to wait until home prices have bottomed out before buying, a behavior that will keep new and existing home sales low even if prices are now more affordable. Note also that 50% of existing home sales are now distressed sales: either short sales or foreclosed properties; thus both new and existing home sales are still showing sharp decreases in prices.

In summary, the existent inventory of new and existing home sales is so large – even if marginally smaller than a year ago – that massive downward pressure on home prices will continue through most of 2010: you could stop producing new homes today and it would take almost a year to clear the inventory of unsold homes. So no wonder that the Case and Shiller index is still showing home prices falling at a 20% annual rate and showing no sign of deceleration of this home price rate of fall; if anything the rate of price deflation has accelerated since 2008 from 17% to 18% to 19% and to the current 20%. And even if new home sales, existing home sales, housing starts and building permits were to bottom out in the next few months – as they should as they are close to 80% down from their bubble peak – their recovery would remain so sluggish and the downward pressure on prices so large – given the inventory of unsold homes – that home prices will have to fall – over the next 18 through the end of 2010 – by another 15-20% - for a cumulative fall of 40-45% - before they bottom out in 2011. So beware of the nonsense about green shoots in housing: the worst housing recession since the Great Depression is still in full swing and the yellow weeds have taken over millions of empty housing lots for the last three years and still going. And any recovery of housing quantities will be weak even after such quantities (supply and demand) will bottom out in H2 while prices will fall through most of 2010 if not longer.

In summary, a careful and detailed analysis of the four green shoots of recovery (employment trends, retail sales/consumption, industrial production and housing) that Goldman Sachs and other proponents of the "green shoots" hypothesis have been branding for 3 months now suggests that all four green shoots are still yellow weeds. Data may improve in the next few months – as aggressive policy stimulus makes a difference – and the economy will bottom out by year end or early 2010; but the widespread view that the bottom of the US recession was now (or next month in June) has been clearly dashed by the most recent macroeconomic data.

For the sake of conciseness we will not discuss in detail the evidence for green shoots for Europe and Japan and other advanced economies. But a recent careful analysis of the data - done by RGE analysts - suggests that the US green shoots are mostly yellow weeds in Europe and Japan and other advanced economies the weeds are even yellower and browner than in the US. Of course the second derivative of most economic indicators is now positive in the US and other advanced economies; if it had remained negative a free falling acceleration of the economic contraction would have implied a depression or near depression. But basing strong optimism on positive second derivatives is totally farfetched: first derivatives need to become positive for a recession to be over; and if second derivatives are positive a recession can continue for another decade unless those second derivatives become so positive that that the bottom is reached in finite time rather than farther out over the horizon; i.e. second derivatives need to be so large that first derivatives become positive (i.e. expansion rather than slower rate of contraction of economic activity) sooner rather than later.

While the recent debate on the green shoot has concentrated on whether the US and other economies will bottom out mid-year or later that is not a crucial issue. After all even sensible bears (or realists) about the economy see this 24 months deep and severe recession being over by year end or in early 2010; so the gap between the bulls and the bears on when the recession will be technically over is about 6 to 9 months. And bears also recognize that a brief snapback of production and GDP may occur once the US and other economies bottom out: production well below final sales will lead to a recovery of output to rebuild inventories; and the effects of the monetary and fiscal stimulus – by some measure equal to 20% of GDP for the US alone – should give some temporary boost to demand and output.

Medium term risks and vulnerabilities imply that yellow weeds – rather than green shoots – will lead to a mediocre, sub-par, weak and well below potential growth recovery in 2010-2011

But the crucial issue is not whether the global economy will bottom out in Q3 as opposed to Q4 or Q1 of 2010 as the gap between those who are more optimists or more pessimists on the timing of the bottom is only a couple of quarters. The more important issue is, once the bottom is reached, whether the global growth recovery will be robust or weaker over the medium term, say over the 2010-2011 horizon. As argued above one cannot certainly rule out a couple of quarters of sharp snapback of GDP as the inventory cycle and the massive policy boost lead to a short term growth revival. However, a detailed analysis suggests that there are many yellow weeds that may lead to a weak global growth recovery over 2010-2011 horizon. Of course a mediocre global economic recovery would have significant effects on risky asset prices – equities and others – as it would imply a mediocre and sub-par recovery of profits and corporate earnings after their sharp fall during the current recession.

Again the current optimistic consensus sees US economic growth going back in 2010 to a level close to potential (a growth rate above 2% that is close to the 2.75% potential growth rate) and returning to potential by 2011. And many optimists go even further arguing that the snapback of demand and production after the depressed levels of the current recession will lead growth to be well above trend (rather in the 3.5%-4% for a while) for a couple of years as most previous US recessions have been followed by a period of above trend growth once the recovery gets going. Compared to this optimistic consensus a detailed analysis suggests that growth in both advanced economies (US, Europe, Japan and other advanced economies) and emerging markets will remain well below potential for at least two years – if not longer – as the severe vulnerabilities and excesses of the last decade will take many years to mend and resolve. Also, the weak growth of the G3 (US, Europe, Japan) will imply a drag on the medium term growth rate of emerging market economies at rates well below potential as such economies still significantly depend on G3 growth – via trade, commodity prices, credit and financial links, and international investors' risk sentiment – for their own growth.

Let us discuss in detail the many structural factors and vulnerabilities that will cause mediocre – below potential - economic growth over the medium term even once this severe global recession is over. We will also discuss the factors that may actually lead to a fall in the potential growth rate of many economies and thus further depress economic growth over the longer term. We can identify at least ten such risks and vulnerabilities to medium term global growth.

First, and more importantly, an incorrect interpretation of the causes of this crisis has led to a partially mistaken policy response to it that does not resolve the fundamental causes of this crisis. The right way to think of this crisis is as being caused by excessive over-borrowing and over-spending by households, excessive and risky borrowing and lending by financial institutions and excessive leverage of even a fat tail of the corporate sector in a global economy where housing, asset and credit bubbles got out of hand and eventually went bust. So this is a crisis of debt, credit and solvency, not just illiquidity. The alternative interpretation is that this is a crisis of confidence (an animal spirits driven self-fulfilling recession) that has led to a collapse of liquidity – as counterparties don't trust each other – and a collapse of aggregate demand as concerned households and firm cut consumption and investment in ways that can turn a regular business cycle recession into a near depression. Note that even those who believe that this a crisis of over-leverage and over-spending do agree that a severe recession triggered by the bust of asset and credit bubbles can turn into a near depression if the collapse of liquidity and credit in financial markets and concerns about survival by households and firms lead them to cut spending even more than justified by those weak financial fundamentals. Thus, even those who believe in an excessive debt & spending view agree that aggressive monetary and fiscal easing is necessary to prevent a severe and unavoidable recession triggered by such excesses from turning into a near depression. I.e. animal spirits, self-fulfilling expectations, coordination failure that lead agent to focalize on bad equilibria, and crises of confidence and trust can lead an unavoidable serious recession into a real depression.

But while monetary and fiscal easing are necessary to avoid the global economy from falling from the cliff into a depression abyss the ability of these over-levered economies to resume lending, borrowing, spending, investment and growth fundamentally depends on the resolution of the real and financial excesses that causes the economic and financial crisis in the first place. And if this was a crisis of excessive leverage the current rhetoric about the deleveraging process is based on fantasy rather than data. In reality, true deleveraging by households, corporate firms and financial institutions has not really even started as private losses and debts of households, financial institutions and even corporations are being socialized and put on the back of the balance sheet of governments. Thus, the lack of true deleveraging – or appropriate debt restructuring – will lead to a corrosive debt deflation and limit the ability of households to spend, of firms to invest and of banks and other financial institutions to lend. In other terms if this is a crisis of credit and solvency rather than just illiquidity and confidence much more is needed than easy money and massive fiscal stimulus to resume high economic growth. Worse, the socialization of private losses – while private debts and leverage are barely reduced – implies that the process of re-leveraging continues with the public sector levering up to pick up the losses of the private sector. So, this policy solution creates – down the line – another dangerous debt and solvency problem, this time for the sovereign, with risks of a more severe financial crisis down the line once a refinancing crisis occurs and/or the ability by the sovereign to borrow more is curtailed. So, this fundamental misinterpretation of the causes of the crisis leads to a partially incorrect policy solution that exacerbates the debt problems of households, financial firms, corporate firms and governments in ways that are discussed in more detail below. The right way to resolve a problem of excessive debt relative to equity capital for households, firms and financial institutions is to reduce such debt and convert it into equity. Corporate debt should be converted into equity; financial sector unsecured liabilities should be converted into equity; and even households debts can be converted into equity by reducing the principal value of such mortgages and providing an equity upside to the mortgage creditor in the form of a warrant. If there is too much debt and too little equity in an economy a sector by sector conversion of debt (unsecured claims of creditors and bondholders) into equity is the right and efficient solution that allows agents buried under a debt overhang to start spend and invest again. Instead of this efficient debt conversion we are socializing the private losses and putting them on the balance sheet of governments and increasing public debts, thus increasing the overall leverage of the economy rather than reduce it and risking to create a sovereign debt problem while not reducing private leverage. This is not the proper growth-inducing way to resolve a problem of excessive debt and leverage.

Second, in current account deficit countries (i.e. in countries where the country spent more than its income and often households consumed than their disposable income) consumers need to cut spending and save more: shopped out, saving-less and debt burdened consumers have been hit by a wealth shock (falling home prices and stock markets), rising debt servicing ratios and falling incomes and employment. These deficit countries where consumers spent too much and saved too little – often because of a housing bubble - include not only the US but many other "anglo-saxon" style economies: UK, Ireland, Iceland, Spain, many emerging Europe economies, Australia and New Zealand. In these economies the retrenchment of consumption and build up in savings to reduce debts, restore net worth and resume robust spending will take several years. In the US consumption averaged 65% of GDP (and household savings averaged 11% of disposable income) for a long time before the latest decade long housing bubble and consumption binge. At the peak of the bubble consumption had risen from 65% to 72% of GDP and the savings rate plunged to zero and even negative for a few quarters. Currently consumption has fallen from 72% to 70% of GDP and saving increased from near zero to about 5% of disposable income. Even if one were – heroically – to assume that consumption will not revert to the long term average a fall from 70% to say 67% is likely and necessary while savings rate go towards double digits. Even greater contraction of the consumption rate and increase of the savings rate would be necessary to restore the depleted net worth of the household sector that has been hit with its biggest wealth contraction in 60 years.

But how can households reduce their debt ratios that have increased from 65% of disposable income in the early 1990s to 100% in 2000 and to 135% today? And these debt ratio risk rising even further as price deflation leads to debt deflation, i.e. the rise in the real value of nominal debts. One solution is income growth that will increase the denominator of the debt to income ratio and thus reduce the overall debt ratio. But given the potential growth of the real income of US households that solution is not feasible. A second solution is to save a lot to reduce debt and rebuilt net worth: after all the change in wealth is by definition equal to the – properly measured – savings rate. But here the "paradox of thrift" prevents this solution to the debt deflation problem. If households sharply and rapidly cut spending and save more the recession becomes a near depression and the ensuing fall in income further increases the debt to income ratio. The only remaining solution is debt default and debt reduction: when firms have too much debt they go into Chapter 11 and have their nominal debts reduced; then they can start producing, hiring and investing again; when countries have too much debt (say Argentina, Russia, Ecuador in recent history) they default, reduce the principal value of their debts and start spending and growing again. The same holds for households: the overhang of excessive debt can be a burden to households' ability to spend for a long time. Thus, for households buried under a mountain of mortgage debt, credit card debt, auto loans and student loans debt reduction – not just re-stretching of debt maturities or debt servicing relief – is necessary to eliminate the debt overhang and restore robust rate of consumption spending and/or of investment in physical capital (new home purchases).

Third, the financial system – in spite of the massive policy backstop – is severely damaged and the credit crunch will thus not ease very fast. Specifically, traditional commercial banks are severely damaged with a burden of bad loans and toxic securities – and trillions of dollars of peak expected losses - that are still mostly on their balance sheets at the time when such institutions are still severely undercapitalized. Even more important, most of the shadow banking system is either gone or in severe difficulty as the equivalent of a bank run has hit most of the highly leveraged institutions of this system: three hundred non-bank mortgage lenders are bust; all the system of conduits and SIVs is gone; two major broker dealers are gone, one has merged with another bank and the last two have been converted into bank holding companies; money market funds cannot even cover their costs as interest rates are zero and are now under the umbrella of a government guarantee; half of hedge funds may close shop in the next couple of years; even private equity will experience a serious refinancing crisis once covenant lite clauses and PIK toggles run their course; finance companies and insurance companies are also in trouble and need government support and recapitalization. Securitization is – size-wise – a shadow of its recent peaks and attempt to revive it – TALF – have been so far a mixed bag.

Most of US financial intermediation used to occur outside the banking system and into capital markets; but now most of the institutions of this shadow banking system have disappeared or are severely damaged. Of course, compared to the near global financial meltdown that followed the collapse of Lehman conditions in financial and capital markets have improved. But the damage of leverage, toxic underwriting, even more toxic securitization and risk taking of the last few years is still here. Many financial institutions are still severely undercapitalized, in spite of stress tests that were not stressful enough, are saddled with bad loans and bad assets and are in risk retrenchment mode that leads to a persistent credit contraction. Loan losses are spreading from subprime, near prime and prime mortgages to home equity loans, commercial real estate loans, credit cards, student loans, auto loans, industrial and commercial loans, leveraged loans, corporate bonds, muni bond and emerging markets sovereign bonds; and then to the whole slew of assets – CDOs, CMOs, CLOs and the entire alphabet soup of credit derivatives and structured finance products – that securitized these underlying loans.

After $12 trillion dollars of liquidity support, guarantees, insurance and recapitalization most of the US financial system – and a good part of the UK too – is under effective government control. And the policy unwillingness to convert the unsecured claims of creditors into equity as a way to recapitalize banks implies a partial creeping nationalization of a good part of the financial system. And while the liability side of the financial system has been partially addressed through government recapitalization and guarantees of other liabilities, the task of ridding financial institutions of their bad assets has barely started. Financial institutions saddled with low capital, still high leverage that has to shrink, bad assets and risk aversion will not start providing large amounts of new credit to a private sector – households and firms – that are themselves saddled with excessive debt.

The financial sector damage is not limited to the US: most major UK banks - with the exceptions of HSBC and Barclays – are under effective government control or ownership. The IMF estimates massive losses on loans and securities of other European banks, given their exposure both to domestic borrowers and to Emerging Europe, a region on the verge of a broader financial crisis. According to the IMF even Japanese and other Asian banks are not immune to significant losses on loans and securities.

Over time financial institutions in the US and around the world will clean up their balance sheet; but systemic banking crises are not resolved in a few months; they usually last several years and are associated with persistent credit crunch. Given that a lot of economic activity – purchases of durable goods, purchases of homes, capex spending by the corporate sector – is financed with debt/credit the more limited availability of credit, securitization and financial intermediation will inflict persistent damage and restrict over the medium term the ability of private sector agents – households and corporate firms to borrow, consume, spend and invest.

Fourth, a large part of the corporate sector is also under severe financial stress while the overall willingness and ability of the corporate sector to grow production, employment and capital spending will be restricted by poor profitability driven by slow revenue growth, deflationary pressures and rising corporate defaults. Note that, while most US corporations are less leveraged than they were in 2000-2001 there is a large fat tail of the corporate sector – similar to the fat tail of the household sector – that is severely indebted: issuance of junk bonds run in the hundreds of billions of dollars in the last few years while a trillion dollar or more of LBOs at leverage ratios much higher than historical average occurred in the private equity space. Now that high yield spreads have gone from a low 250bps (in 2006 before the crisis) to current levels of 1500bps (down from a recent peak of 2200bps) a massive refinancing crisis is hitting these highly leveraged firms. Firms that in the past would have been able to rollover their loans, bonds and debts coming to maturity now face a liquidity crisis that may lead them into a costly debt restructuring (in court Chapter 11 or out-of-court exchange offers under the threat of bankruptcy); and some firms that would have otherwise gone into Chapter 11 debt restructuring will end up into socially costly liquidation (Chapter 7) because of the lack of private DIP financing. While default rates on high yield bonds peaked at 13% of the outstanding stock in the last two recessions (1990-1991) this time around rating agencies estimate default rates peaking at 20% and if you include out of court exchange offers under the threat of bankruptcy the figure is closer to 24%. At the same time recovery rates that in previous recessions were in the 30 to 40 cents on the dollar range are likely to be in the 20 to 30 range in this recession. This process of corporate debt restructuring or outright liquidation may take years. And recent government interventions in such restructurings – see the Chrysler and GM cases - is leading to concerns that rights of more senior creditors of firms (such as bondholders) are being undermined with preferential treatment of more junior creditors (pension liabilities owed to workers).

But the main constraint to a recovery of capex spending, production and employment in the corporate sector will be a weak recovery of corporate profitability. If the global economy will grow at sub-par rates in 2010-2011 corporate revenues will grow slower than otherwise; if deflationary pressures will remain across the world given the glut of supply relative to aggregate demand pricing power of firms will be limited and profit margins will be further squeezed; the ability to control costs and restore earnings by slashing employment will reach a limit and excessive employment contraction has negative macro effects: less jobs means less income, less consumption, less corporate revenues and less profits/earnings. And a period of time when profits and earnings growth remain under pressure because of low revenue growth, pressure on margins and the burden of high and costly corporate debt is negative for the resumption of capex spending by the global corporate sector that is already saddled with vast excess capacity – because of massive overinvestment by China, Asia and other emerging market economies - and low levels of capacity utilization. That weak recovery of profits/earnings will also be bearish for equity valuations of corporate firms thus increasing the costs of equity financing of capex spending.

Fifth, as discussed above the socialization of private losses and debts implies a sharp rise in public debt burdens. In the US alone the CBO estimates that the public debt to GDP ratio will rise from 40% to 80%, or about 9 trillion dollar. If long term rates will then increase to 5%, the resulting increase in the interest rate bill alone would be about $450 billion or 3% of GDP. I.e. the fiscal primary surplus will have to be permanently increased by 3% of GDP (via an increase in taxes or cut in government spending) to prevent an unsustainable Ponzi increase in the stock of public debt as a share of GDP. The burden of trillions of dollars of additional public debt in the US and other advanced economies will be a medium term drag on growth. High debt levels may be financed only with default (an option that advanced economies have not followed in recent decades), a capital levy on wealth, the use of the inflation tax to wipe out the real value of public debt or a painful increase in regular taxes or reduction in government spending. All these options are costly as they imply distortions on the supply of labor and/or the returns to saving and investing.

And over time rising debt ratios of government will eventually lead to increases of real interest rates that may crowd out private spending and may even lead to sovereign refinancing/default risk. Indeed, sovereign risk that was until recently limited to emerging market economies is now on the rise in advanced economies, especially those in the Eurozone: rise of sovereign spreads relative to safer German Bunds or US Treasuries, downgrades by rating agencies, risks of failed government auction, risk of a refinancing crisis, less ability/willingness to monetize fiscal deficits (especially in a Eurozone where the ECB is hawkish on inflation) are becoming pervasive in many advanced economies; and eventually even the US may face a downgrade of its AAA rating. Sovereign risk is especially serious and rising in the periphery of the Eurozone where you have countries with large budget deficits, large public debt to GDP ratios and banking systems that are both too-big-to-fail and too-big-to-be-saved, i.e. financial systems whose liabilities are so large relative to the resources of the sovereign that the government could not bail out such financial systems unless there is cross border burden sharing (i.e. unless the German and French taxpayer bails out Greece, Ireland and possibly other weak Eurozone members).

If one rules out defaults and the inflation tax as options as their costs in advanced economies would be serious a painful process of increases in taxes and reduction in government spending may reduce the rate of economic growth over the medium term (2010 and beyond); such fiscal adjustment may be necessary to ensure medium term debt sustainability but it immediate effect would lead to a reduction in private and public aggregate demand. So it will be a drag on economic growth over the medium term.

Sixth, the rapid and massive monetization of fiscal deficits – that has been pursued by central banks this year - is not yet inflationary in the short run as there are massive deflationary forces in the world given the slack in goods markets and labor markets; also the collapse in the velocity of money implies that the excess liquidity has been so far hoarded by banks in the form of excess reserves. But if central banks don't find a clear exit strategy from very easy monetary policies - that have led to the doubling or tripling of monetary base in the US alone - eventually either goods prices inflation and/or another dangerous asset and credit bubble will ensue when the global economy gets out of this severe recession. And some of the recent rise in equity prices, commodity prices and other risky assets prices is already clearly liquidity driven rather than being fully justified by the improving economic fundamentals.

Inflation may indeed become the path of least resistance for policy makers as it is easier to run the printing presses and cause inflation rather than pass politically difficult tax increases or spending cuts in Congress or other legislative bodies. But inflation is not a cheap solution to high public debts and the debt deflation problems of the private sector. If central banks were to allow the inflation genie out of the bottle allowing expected inflation and actual inflation to rise from low single digits to high single digits to double digits at some point a painful Volcker-style recessionary disinflation policy (like the one in 1980-82) would have to be implemented to break the back of inflation expectations and bring back the inflation genie expectation into the bottle. Thus, central banks destroying a quarter of century of achievement of price expectation stability and low inflation credibility to reduce the real value of public and private debts would be a costly solution to these debt problems. And high and variable inflation close to double digits would then lead to much higher real interest rates for government bonds, mortgages and other long term fixed interest rate debts of the public and private sector as investors will have to be rewarded with a high risk premium for high and volatile inflation. So the result would be another dismal low growth decade like the 1970s of high inflation and high and volatile real interest rates.

Seventh, employment is still sharply falling in the US and other economies; according to the OECD in advanced economies the unemployment rate will be close to 10% by 2010. And low medium term growth will lead to only slowly falling unemployment rate once the recession is over. Years of high and rising unemployment rates have corrosive effects on growth. Persistently unemployed workers lose skills, human capital and become less employable. High unemployment rates are associated with lower incomes, lower consumption spending and thus lower growth. The ability of households to service their high debts is corroded by high unemployment rates and sluggish income growth. Default rates and recovery rates on a variety of bank assets (residential mortgages, commercial mortgages, credit cards, student loans, auto loans) are highly correlated to the unemployment rate. And the pressures that globalization, technology and trade are putting on the real wages of lower skilled workers (and even of higher skilled white collar workers subject to the threat of offshore outsourcing of their jobs) will remain a challenge in the years to come. While the integration of 2.3 billion Chindians in the global economy can be over time a major source of long term global growth the challenges of easing the global effects of such addition of 2 billion plus people to the global labor force will be daunting.

Eighth, for the last decade the US and a few other deficit countries (UK, Iceland, Ireland, Spain, Australia, New Zealand, etc.) have been the consumers of first and last resort spending more than their income and running large current account deficits. While China, Germany, Japan, most of Asia and most emerging markets (with the exception of Emerging Europe) have been the producers of first and last resort spending less than their income and running large current account surpluses and thus relying for their growth on the demand of deficit countries to fill the gap between their excess production and domestic spending. But now this party and this system of imbalances is challenged as the consumers in the deficit countries need to retrench, spend and consumer and import less. And for deficit countries to be able to go back to their potential growth while domestic demand is falling relative to GDP you need other components of aggregate demand, namely net exports, to improve over time. The resulting reduction of global current account imbalances implies that the current account deficits of the overspending countries (US and other anglo-saxon countries) will lead to a reduction of the current account surpluses in the oversaving countries (China and other emerging markets, Germany, Japan). But if net exports shrink in surplus countries these countries can go back to their potential growth rate only if domestic demand – especially private domestic demand – rises faster than GDP. Bu if domestic demand does not grow fast enough in the surplus countries the resulting lack of global aggregate demand relative to supply – or equivalently the excess of global savings relative to investment spending – will lead to a weaker recovery of global growth with most economies growing much less than their potential growth rate. In other terms the surplus countries cannot rely anymore on the overconsumption and overspending of the US and of other deficit countries as sources of export led growth. Thus, unless domestic private demand is significantly increased in the surplus countries - a process that may take many years as the high saving rates of the surplus countries are due to structural factors that cannot be changed in the short run – growth in the surplus countries and in the global economy will be well below trend.

Ninth, while the rising role of government is necessary to prevent a severe recession from becoming a near depression mistaken public policies may lead to sub-par growth for years to come. Think of trade protectionism and its potential costs; think of financial protectionism and the likely restrictions to foreign direct investment. Think of rising public debts and deficits leading to higher real rates and the need to raise distortionary taxes to avoid debt sustainability problems. Think of the effects that greater and necessary regulation and supervision of financial institutions will have on credit growth that will remain limited for a long time. Think of the greater degree of government intervention in economic affairs and the risks that this intervention will become excessive and distortive of private sector development and growth.

Tenth, there is a significant risk that, in addition to lower than potential growth over the medium term because of the structural vulnerabilities discussed above we may also observe a significant fall in potential growth in advanced economies. This reduction in potential growth could be the result of several factors. First, it is the result of aging of population and demographic trends. Second, reduction in the rate of human capital accumulation (that increases long term labor productivity) as long term unemployed workers loses skills, younger workers without jobs do not increase such on-the-job skills and lower investment in education and training occurs (as the cost and availability of financing of education shrinks during a protracted credit crunch). Third, several year of sub-par capex spending and less capital accumulation will reduce trend productivity growth. Fourth, the crowding out effects on the private sector of public sector deficit/dissavings and rising real interest rates on public debt will imply less growth. Fifth, a lot of the growth of the last decade in deficit countries was artificial and driven by excessive borrowing, leverage and overspending. If the financial crisis and the ensuing persistent credit crunch lead to less credit growth over time potential growth will be lower than otherwise.

In conclusion, several medium term yellow weeds may constraint the ability of the global economy to return to sustained high growth. Growth may remain for a number of years below potential and even potential growth in advanced economies could shrink because of the factors discussed above. Thus, unless those structural weaknesses are resolved the global economy may grow in 2010-2011 at a rate well below its potential and even experience a reduction of its potential growth.

The risks of a double-dip W-shaped contraction

Finally, we have so far discussed why yellow weeds – rather than green shoot – will cause the global economy to bottom out and get out of its recession later than the optimistic consensus; and why structural weaknesses may led to lower actual and potential growth over the medium term once we are out of this severe economic downturn. But there is a third risk that has to be kept in mind. Once the global economy bottoms out there may be a couple of quarters of faster GDP growth as production is increased to rebuild inventories and as the effects of the policy stimulus reach their peak. But that recovery will be constrained by two factors: first, the medium term vulnerabilities and constraints to robust growth discussed before. Second, the risk of a double dip W-shaped recession as the wings of a tentative recovery of growth in 2010 could be clipped towards the end of that year or in 2011 by a perfect storm of rising oil prices, rising taxes and rising nominal and real interest rates on the public debt of many advanced economies.

First, oil and energy and commodity prices could spike as soon as there are tentative signs of a global recovery if the elasticity of supply of such commodities is inelastic to the price because of limited excess capacity of commodities after years of underinvestment in commodities and especially oil and energy. The resulting spike in commodity prices would be first inflationary but, more importantly, a sharp negative terms of trade effect on commodity importers that will reduce their real income and lead to further demand slowdown.

Second, by the end of 2010 many US tax cuts (on incomes, capital gains, dividends, estates) will expire and will be partially reversed; and the likely introduction of cap & trade will represent an additional tax increase (however necessary to control greenhouse emissions). This incipient tax increase may lead to a slowdown of consumption and investment spending.

Third, concerns about medium term fiscal sustainability and about the risk that monetization of fiscal deficits will eventually lead to inflationary pressures after two years of deflationary pressures could lead to increases in nominal and real interest rate on government bonds thus crowding out consumption, capex spending and a tentative recovery of housing.

Conclusion: significant triple risks to global economic recovery.

In conclusion, there are three major sources of downside risk to early and sustained global economic recovery. First, in the short run the evidence suggests that rather than green shoots there are plenty of yellow weeds. So this severe global recession may not end in the middle of 2009 – as the optimists claim – but rather towards the end of 2009 or some time in 2010. Second, global recovery after this recession may not be V-shaped (as the optimists claim) with rapid return to potential growth. Structural vulnerabilities and the legacy of over-leverage of households, corporate firms, financial institutions and now governments may lead to several year of below potential growth with additional real risks that even potential growth may fall in advanced economies. Third, the wings of global recovery could be clipped towards the end of 2010 or 2011 - and result in a double dip W-shaped recession - if rising oil and commodity prices, rising tax burdens and rising concerns about medium term fiscal sustainability and inflation lead to an early crowding out of private consumption, capex spending and residential investment.

The outlook for the global economy may turn out to be better than the one described in this analysis if appropriate policies – to be discussed in a separate note – are adopted to limit these short term and medium term risks and vulnerabilities. And as discussed above one cannot rule out a couple of quarters of rapid growth as the effects of the massive policy stimulus take hold and as firms that have sharply destocked inventories start to ramp up production once final sales start to bottom out and recover. But such short run recovery risks to be warped by the medium term structural vulnerabilities that wil lead to low actual and potential growth in 2010-2011. And the risk of a double dip W-shaped recession towards 2011 cannot be ruled out either. Thus, the detailed analysis in this paper suggests that downside risks to sustained global growth recovery appear to be greater than to the upside risks.

Over time the global economy will mend its excesses and potential growth in emerging market economies remains high especially if domestic demand growth - rather than sole reliance on net exports - becomes the new source of growth for emerging market economies. The sluggish medium term actual and potential growth of the US, Europe and Japan (unless a new technological revolution boosts potential growth) suggests that emerging market economies cannot rely any more on advanced economies growth as a major source of their own growth. So the medium and long term sustainability of emerging markets growth will partly depend on their ability to develop a new model of domestic demand and/or South-South trade and growth.