

Will the Bretton Woods 2 (BW2) Regime Collapse Like the Original Bretton Woods Regime Did? The Coming End Game of BW2

by Nouriel Roubini, July 6, 2008

Will the <u>Bretton Wood 2 Regime</u> of fixed and/or heavily managed exchange rates in many emerging market economies collapse in the same way as the Bretton Woods 1 regime (the "dollar standard" regime that ruled after 1945 in the global economy) collapsed in the early 1970s? What are the similarities and differences between those two regimes? It is interesting to note that the same factors – U.S twin deficit, U.S. loose monetary policies and fixed pegs to the U.S. in the dollar standard regime of Bretton Woods (1945-1971) - that led to the commodity inflation and goods inflation in the early 1970s and thus to the demise of the Bretton Woods 1 regime (in the 1971-73 period) are also partially the same factors that are leading now to the rise in commodity and goods inflation in emerging markets that are pegging to the U.S. dollar and/or heavily managing their exchange rates.

Thus, like the rise of commodity and goods inflation led to the demise of BW1 the current rise in commodity and goods inflation in emerging market economies may be the trigger that will lead – as argued in my 2005 BW2 paper with Brad Setser and a more recent 2007 paper of mine – to the demise of BW2. It is true that BW2 is still alive as the massive ongoing reserve accumulation by BRICs, GCC and other emerging markets suggests. But the rise in inflation that these exchange rate policies are causing may soon lead to its demise: abandoning pegs and/or letting currencies appreciate at a faster rate will be the necessary step to control inflation in such emerging market economies.

Let us flesh out this comparison between BW1 and BW2 in more detail...

First, note that there are a number of similarities between the current US recession and rising inflation (a stagflationary episode) and the episode of rising inflation in the early 1970s that, by the fall of 1973, erupted into a full fledged global stagflationary shock following the Yom Kippur war and the ensuing spike in oil prices. Indeed, there has been a debate on how much the of the 1974-75 global recession was due to the supply side stagflationary shock of 1973 and how much of it was due to a rise in global inflation and commodity prices that started in 1970 and accelerated in 1973.

Note that the rise in inflation in the 1970s started much earlier than the supply side shock of 1973. Rather, the breakdown of the Bretton Woods (BW) regime was an important factor behind the rise in global inflation before the oil shock of 1973. This collapse of BW1 in the early 1970s has some uncanny similarities to the rise in global inflation that the current Bretton Woods 2 regime of fixed rates or heavily managed rates has triggered

in the last few years. Like in the current episode - where a number of countries heavily managed their currencies relative to the US dollar by keeping them weak via aggressive partially sterilized intervention and thus caused excessively low interest rates and excessive growth of base money and of credit that eventually led to asset inflation and goods inflation in 2008 - a similar phenomenon occurred in period that led to the demise of Bretton Woods 1 in the early 1970s.

Indeed, in the late 1960s the U.S. was running large twin fiscal and current account deficits caused by the costs of the Vietnam War and an increasingly overvalued US dollar (while today the twin deficits are also partly related to the Iraq war/homeland security spending and a strong dollar until the early 2000s). The members of Bretton Woods 1 – formally a regime of fixed pegs to the U.S. – were instead running current account surpluses – Germany, most of Europe, Japan – and thus accumulating foreign reserves to prevent their currencies from appreciating relative to the U.S. dollar. Eventually that excessive reserve accumulation and ensuing monetary growth led to a rise in domestic inflation and a rise in commodity prices as global monetary conditions were too loose given the U.S. policies. And many of the creditors of the U.S. – especially France – became restless about accumulating larger and larger reserves of dollar assets that were yielding low returns and were effectively not convertible to gold at the set price by the "dollar standard" regime as it was increasingly clear that the supply of dollar assets created by the US external deficits was massively outstripping the gold backing the "dollar standard" regime. Eventually by 1971 those growing imbalances led to the collapse of the Bretton Woods dollar standard regime, a move to managed rates by 1971 and by 1973 a move to a full float of major currencies. That collapse in Bretton Woods 1 then fed the commodity bubble of the early 1970s as the ensuing weakness of the U.S. dollar following the breakdown of BW1 led to a further rise in commodity prices that were already rising before because of excessive U.S. and global monetary growth.

The same is happening today as the exchange rate policies of China, the GCC, Russia, India, Argentina and other informal members of BW2 – have fed the commodity inflation and the domestic inflation in many emerging market economies, a rise in inflation that is now spilling back to the U.S., Europe and other advanced economies. In the early 1970s the tensions created by the fix pegs to the US dollar – in the presence U.S. twin deficits and loose U.S. monetary policies – led to the breakdown of BW1 as Germany, France, Japan and other economies decided to abandon the pegs and revalue their currencies to prevent even further rise in their inflation rates. But the by product of that abandonment of pegs was further dollar weakness, further loosening of monetary policies in the U.S., further commodity inflation that – by the time of the 1973 stagflationary oil shock – led to an ugly U.S. and global stagflation.

Similarly, today the rise in commodity and goods inflation that U.S. twin deficits, loose monetary policy (to deal with the recession and the financial crisis) and the exchange rate policies of the BW2 members has created is likely to lead to the demise of BW2. In my 2005 paper with Brad Setser and in the follow-up papers on BW2 we argued that the demise of BW2 would be triggered – among other reasons - by the rise in asset inflation and goods inflation that these exchange rate policies of partially sterilized interventions

would entail. That rise in asset inflation and goods inflation has now occurred in emerging market economies – with over 30 of such economies now having double digit inflation. Also, the asset inflation – in equity markets and real estate in countries such as China, the Gulf States, India, Russia, etc. – that the BW2 policies created has now started to go bust at least in the equity markets of the China, India, Gulf States and other emerging markets (where equity markets are already in a 20% bearish downturn).

In May of 2007 I wrote a <u>paper titled "Asia is Learning the Wrong Lessons from Its 1997-98 Financial Crisis: The Rising Risks of a New and Different Type of Financial Crisis in Asia"</u> that presented a more recent assessment of the vulnerabilities of BW2 and the risks of rising asset and goods inflation in that regime.

Then <u>I wrote in that paper</u>:

[Asia] has learned some wrong lessons from that [1997-98] crisis and — in trying to address that crisis — planted the seeds of new and different financial vulnerabilities that could lead to a different crisis in the medium term, or even in the short term if global shocks such a US hard landing take place. Paradoxically, part of the policy responses to the 1997-98 crisis were mistaken and created excessive liquidity and asset bubbles that will come to haunt the region once external shocks take place.

So, what are the problems with the current Asian economic, currency and financial model? The answer is, in brief, the effective return to fixed exchange rates in spite of the rhetoric of a move to floating rates. In other terms the problem of Asia today is its membership of the Bretton Woods 2 (BW2) and the economic distortions, and financial and asset bubbles that this BW2 regime generates. Let me elaborate. After the 1997-98 Asia only formally moved to a regime of flexible exchange rates. Effectively, instead, most countries in the region tried to avoid the appreciation of their currencies that had collapsed during the crisis, were thus severely undervalued and were thus subject to appreciating pressures once their economies and external balances recovered...That new model of growth was first and foremost chosen by China. And following the Chinese bandwagon most of the East Asian countries joined this BW2 model of fixed rates and undervalued currencies leading to export-led growth with current account surpluses and reserve accumulation attempting to prevent nominal and real appreciation...

One may then ask: what is wrong with that BW2 growth model if it has led to high growth in China and East Asia and strong and well performing financial and asset markets? The answer is clear.

First, this new economic and financial model is leading to excessive monetary and credit growth, asset bubbles in stock markets, housing markets and other financial markets that will eventually lead to a build up of financial vulnerabilities — like the capital inflows and bubbles the preceded the Asian crisis of 1997 in a region of semi-fixed exchange rates — that could trigger a financial crisis different from that of 1997-98 but that could be potentially as severe.

Second, reliance on an economic growth model based on rising growth of net external demand and domestic investment aimed at rising capacity for such exports; low reliance on domestic demand and production for domestic markets, especially private consumption and production of necessary non-tradable public and private services. This model of growth with excessive reliance on net exports and production of capacity for exports is dangerous for several reasons: it makes Asia – that used to rely in the 1990s on capital flows from the rest of the world for its growth – now reliant on US and global demand from outside Asia for its growth; given the current risks of a US hard landing or even a serious US growth slowdown this is a dangerous and vulnerable model of growth. Moreover, reliance on an ever increasing level of next exports (both absolute and as a share of GDP) increases the risks of a protectionist backlash in the US and Europe. Thus, this export-led only growth model is unsustainable and a more balanced growth pattern with greater reliance on domestic demand is essential to ensure long run growth stability.

Let me elaborate on why the wholesale acceptance — with a few exceptions — of BW2 and of its related export-led growth model is dangerous for China, East Asia and the whole of the Asian continent. Notice also that many other economies outside of East Asia are following this BW2 regimes of fixed exchange rate, aggressive attempt to prevent appreciation via reserve accumulation and export-led growth. These include countries as far as India, Russia, Argentina, the GCC countries and other Middle East countries that are oil exporters and, until recently, even Brazil and other parts of Latin America. So the problems and financial vulnerabilities that we will outline below are relevant not just for East Asia but also for a broader group of emerging market economies around the world...

Here are ten points and observation on how Asia has not learned the true lessons of the 1997-98 crisis and how its policies are creating the basis of a future financial crisis in the region.

First, notice that BW2, fixed rates, easy monetary condition and low interest rates, asset bubbles and excessive reliance on export-led growth are all interconnected. Weak currencies, aggressive forex intervention to prevent appreciation in spite of current account surpluses and capital inflows lead to distorted relative prices — an undervalued real exchange rate — that punishes domestic private consumption and production of productive non-tradable services and rewards exports, investment for exportables, and investment in not-directly productive real estate and housing.

Second, the move to flexible exchange rate after the 1997-98 crisis was only temporary and soon these economies returned to effectively fixed or semi-fixed exchange rates in the new BW2 regime. Before the crisis the currency levels were somewhat overvalued; today they are grossly undervalued. Moreover, the attempt to prevent the necessary nominal and real appreciation of currencies - that are both undervalued and under appreciation pressure because of current account surpluses and net private capital inflows in the form of FDI, capital inflows in equity and bond market and hot money short term inflows – is leading to a massive and unprecedented increase in forex reserves in all of Asia...

Third, the ability of these economies to sterilize their forex reserve accumulation is severely limited...

Fourth, partially sterilized intervention is leading to lower than equilibrium interest rates, massive growth in the monetary based and massive growth of bank lending and credit growth. China has been attempting to control credit growth and the ensuing investment and asset bubbles that it generates via administrative controls on credit and real investment. But such controls are increasingly ineffective and source of further distortions in the allocation of savings to investment. Excessively low policy rates and short term interest rates and the accompanying credit bubbles are now becoming pervasive throughout Asia, especially the effective members of BW2.

Fifth, these monetary and credit growth and easy financial conditions are leading to inflationary pressures in these economies. Since the real exchange rate is undervalued relative to its much appreciated equilibrium level there are only two ways via which the actual real exchange rate can appreciate towards the stronger equilibrium one: either a nominal exchange rate appreciation or via domestic inflation. Since in most countries—with Korea, Thailand and Indonesia being partial exception—the nominal appreciation is prevented the real appreciation is often occurring via an increase in domestic inflation...in other economies where labor markets are not as flexible and/or where energy subsidies have been phased out inflation is rising: both in BW2 economies in East Asia and among effective members of BW2 outside that region (specifically in India, Russia, Argentina, GCC countries and other Middle East countries, etc.).

Sixth, these monetary and credit growth and easy financial conditions are leading to asset price inflation, especially in countries like China where goods inflation is limited, but more generally among most BW2 economies.

...easy credit has led to a massive surge in leveraged investments in stock markets in many of these economies. In China alone it is estimated that retail stock market investors – most clueless about the financial risks that they face – are now estimated to be over 100 million; day-trading of the type observed during the US dot.com bubble in the late 1990s are now common throughout Asia. Similar housing and stock market bubbles – and at times temporary busts – have been observed in India, Russia, Mid-East oil exporters, Argentina and other BW2 member countries. Of course, some of the increases in equity prices and in other asset prices are related to the much improved economic fundamentals. But there are now increasing signals of asset price overheating and bubble conditions, as recent episodes of stock market turmoil in China, India, and the Middle East suggest.

Seventh, the fiscal and financial costs of forex accumulation and partial sterilization are increasing...

Eighth, undervalued currencies and rising current account surpluses imply that Asia is excessively reliant on US growth and growth outside of Asia and too little on domestic demand...

Thus, while the US is the consumer of first and last resort with its spending well in excess of its income (leading to a massive current account deficits), China is the producer of first and last resort with its spending well below its income (leading to massive current account surpluses). More importantly, via the trade with China, most of East Asia depends on net exports and on the health of the US economy as much as China does.

Ninth, the currency and economic policies of China and East Asia have contributed — among many other factors — to unsustainable global current account imbalances whose rebalancing now risks becoming disorderly rather than orderly. Global imbalances have many causes and sources including — crucially — the low levels of US private and public savings. But China and Asia have had an important role in aggravating these unsustainable imbalances...

Tenth, the excessively easy monetary and credit conditions caused by BW2 and partially sterilized forex intervention, as well as low global nominal and real interest rates generated by this Asian excess of savings over investment have created conditions that exacerbated the excess of spending over income in the US and have fed global assets bubbles in a variety of risky assets, be it equities, credit spread, sovereign emerging market spreads, worldwide housing bubbles, commodity price booms. Low long term interest rates (Greenspan's bond market conundrum) from excessive savings and low short interest rates given partially sterilized massive forex intervention together with the slosh of global liquidity that forex intervention, easy money in Japan and massive yen carry trade and excessive savings create excessive liquidity in the global economy that is behind the asset bubbles, credit boom, excessive leverage among private equity, hedge funds and other leveraged institutions that we are observing today. These excesses have led to an imbalance global economies where real (global current account imbalances and excessive global dependence on now fragile US growth) and financial imbalances (credit booms, risky leverage, and asset bubbles) are growing.

In summary, BW2 was always a disequilibrium for Asia and the global economy; but now from a stable disequilibrium is becoming an unstable one. Partially sterilized intervention is feeding risky credit and asset bubbles; undervalued currencies that are prevented from appreciating via massive and increased interventions are causing both goods and asset inflation and bubbles. Policies of export led growth and undervalued currencies are causing growing global imbalances that are becoming unsustainable and increasing the dependence of China and Asia on a fragile and now faltering US economic growth as the risk of a US hard landing is rising. They are leading to excessive liquidity, asset bubbles and disequilibria not just in the region but also globally. And they are increasing the risks of protectionism in the US and Europe. Thus, this economic growth model is unstable for China, for East Asia and for the world economy. A more balanced global economy requires greater domestic demand in China and Asia and smaller global imbalances...

To achieve all this [rebalancing of the global economy and of domestic demand in BW2 economies] a more flexible exchange rate regime and greater currency flexibility is necessary in Asia and throughout Asia. The policy dilemma that China and Asia faces

today is the classic Triffin's inconsistent trinity: no country can have fixed exchange rates, an independent monetary and credit policy and capital mobility with no capital controls. In China, in spite of formal capital controls, capital mobility is widespread as such controls on inflows are very leaky. Thus, China by trying to keep an effective currency peg (as the rate of currency crawl is at a snail's pace) has completely lost control of monetary and credit policy as interest rates are forced to be much lower than they should be given the overheating of the economy. And the desperate attempts of the Chinese to control the overheating via administrative controls on credit are failing given that excessive liquidity moves from controlled to uncontrolled sectors (from a boom in capex investment to a boom in housing investment; from a bubble in housing prices to a bubble in stock prices). The only solution to regain monetary and credit policy independence is to allow greater exchange rate flexibility. Similarly throughout Asia and among other BW2 members – India, Russia, the Middle East, Argentina - the same inconsistent trinity problems are emerging causing credit booms, economic overheating, goods inflation and asset bubbles.

As in the case of the Asian crisis where overheating, massive capital inflows, fixed exchange rates, credit booms and asset bubbles in equities and housing eventually led to financial imbalances before 1997 and an eventual crisis in 1997-98, the seeds of the next financial crisis are being planted today in Asia and in the other parts of the unstable *BW2 system. It is true that today – compared to 1997 some vulnerabilities are different:* we have current surpluses, large stock of foreign reserves, low stocks of short term foreign currency debts. Thus, a financial crisis coming from the unraveling of BW2 would not take the form – as it did in 1997 – of an external debt crisis. But like in the 1995-97 period, attempts to follow the US dollar and maintain fixed rates are feeding capital inflows, monetary creation and asset bubbles. It is easily forgotten that what triggered the Asian crisis were global conditions: then a strong dollar, a weak yen and carry trade that eventually unraveled; concerns about a global slowdown after 1995 and negative terms of trade shocks. This time around, as long as the US economy growing at a good rate the stable disequilibrium of BW2 could be maintained. But the trigger for its unraveling is likely to be, as in 1996-97, a change in global conditions external to Asia, specifically today the risk of a US hard landing as the housing recession is now spreading to the rest of the economy, creating a credit crunch and leading to a slowdown of private consumption.

As long as the US achieves a soft landing in 2007 the stable disequilibrium of BW2 can continue for a while longer. But a US hard landing (in the form of a growth recession or outright recession) will tip the BW2 disequilibrium from a stable one to an unstable one for many reasons.

First, a US hard landing would imply a sharp reduction of Chinese growth given the dependence of China on net exports and investment to produce exportables...

Second, a US hard landing of either type would not only lead to a painful growth slowdown in Asia and around the world. It would also undermine the basis of the BW2 regime. That regime in which China and Asia provide cheap goods to the US and, at the

same time, the financing of the US current account deficit (a system of "vendor financing") is stable only as long as Chinese and Asian growth can continue via ever expanding net exports. The US hard landing undermines that key condition for vendor financing, a rise in US imports from China and Asia. Also, while US imports would fall in a US hard landing scenario the US current account deficit would not shrink as now net factor income payments in the US current account are negative and increasing (as the stock of foreign debt is rising and the interest payments on US liabilities rising). Thus, while until now a system of vendor financing was financing an increase in Asian exports to the US, a US hard landing would imply Asian to continue financing the increased US foreign debt and its factor income servicing rather than growing exports to the US. Thus, the willingness of Asia and other BW2 regime members to finance the US would be undermine at the time that downward pressures on the US dollar from the US hard landing lead to greater expected capital losses on holdings of dollar reserves and dollar assets.

Third, in a US hard landing protectionist pressures that are already high in a soft landing outlook would become severe with tensions on currency values turning into increasingly acrimonious trade conflicts and trade wars. In a US hard landing the US would want China to let the RMB to appreciate even more that it is pressing for it now; but in that lower growth environment where Chinese growth suffers even more, China would resist even more strongly further RMB appreciation. Thus, the outcome of this currency conflict would be a trade war between the US and China.

Fourth, a US hard landing would lead to the unraveling of the bubbly conditions in financial markets, of the credit booms and leveraged investments that that fed Asian and global asset bubbles. Risk aversion would sharply rise and investors' confidence would sharply fall. In the spring of 2006 an inflation scare in the US led to sharp market turmoil in G7 equity markets and in emerging markets' financial markets. In February and March 2007 a growth scare in the US following the subprime carnage led to another episode of financial turmoil in G7 and emerging markets. Now, if instead of growth "scare" we were to experience a real US growth "downfall" that takes the form of a hard landing (either a growth recession or an outright recession) the consequences for financial markets and real economies would be severe. Economies would sharply slow down, financial markets and risky assets would be shaken, global imbalances would not shrink as both US imports and exports would fall with the slowdown in global growth, dollar weakness and currency tensions would increase, and the risks of a protectionist trade war would increase.

Economic fragilities, boom and busts in housing, and policy weaknesses in the US are at the core of global economic imbalances that are leading to the risk of a US hard landing and a disorderly rebalancing of global imbalances. But it is also true that Asian currency and financial policies have fed such US imbalances creating a climate of global excess liquidity, low policy rates and easy monetary conditions (including easy money in Japan and massive yen carry trades), low global interest rates given the excess of savings over investment that have fed the US imbalances via an easy financing of the US fiscal deficits

and the feeding of the US housing bubble, low private savings and consumption boom that is now under threat given the bust of the housing bubble.

In the meanwhile the Asian policies have both fed the US bubbles and imbalances and made Asian growth even more hostage to US economic growth. The entire Asian economic development for the last six years has been based on creating and feeding the US excesses that are now at risk of unraveling, a system of global imbalances that is now in danger of falling apart. In the short run Asia can do little to resolve this fragile disequilibrium. If the US hard landing occurs in 2007 the consequences for China and Asia would be painful even if easing of fiscal and monetary conditions would allow the region to partially absorb the US shock.

The key to this rebalancing of Asian growth is a faster rate of appreciation of the RMB, greater currency flexibility in China and the ensuing generalized appreciation of Asian currencies relative to the US dollar once China allows a greater appreciation of the RMB. Until recently most Asian economies have been wary to allow their currencies to appreciate too much because of the persistent Chinese policy to maintain an effective RMB peg with a very small and slow rate of upward crawl.

Most Asian economies realized that maintaining an effective peg to the US dollar (or equivalently to the RMB) is costly: it leads to excessive forex reserve accumulation with its ensuing short run fiscal costs and long run large capital losses; it leads to excessive monetary growth – via partial sterilization - and credit booms that feed asset bubbles. Thus, there is increasing Asian economies' uneasiness with staying inside BW2. But as long as China keeps on pegging its currency most Asian economies can ill afford to get off the BW2 unstable train as the loss of competitiveness of their currencies relative to the RMB, relative to the other Asian currencies and relative to the G7 currencies would be serious and cause a loss of competitiveness and growth.

A few countries tried to get off the BW2 regime given the current and expected costs of staying in this regime and accumulating a dangerous stock of excessive forex reserves: these are Korea, Thailand and Indonesia that allowed some significant appreciation of their currencies in the last few years...

At the same time other East Asian economies such as Hong Kong, Taiwan, Singapore, Malaysia — as well as members of BW2 as far as India, Russia, Middle East/GCC, Argentina — have decided so far to stick with BW2, in Asia because China is still shadowing the US dollar and these economies in East Asia think they can ill afford to allow a loss of competitiveness of their currencies relative to the RMB given their direct and indirect trade links with China. But this continued membership of BW2 is leading to a continuation of the imbalances and financial vulnerabilities generated by BW2.

These policy dilemmas and tensions will remain as long as China decides to remain the leading economy of this BW2 and maintains its effective peg to the US dollar (as the rate of upward crawl of the RMB is extremely small and slow). But these economic and financial imbalances and vulnerabilities generated by BW2 are serious and building over

time increasing the risks of a new and different type of financial crisis in Asia once the unraveling of BW2 becomes disorderly rather than orderly.

Thus, even leaving aside the risks of protectionism in the US, it is of tantamount importance that China realizes that its exchange rate regime is creating economic and financial instability in its own economic and creating serious problems for its trading partners in Asia...

In conclusion, Asia should now worry about not fighting the last war rather than getting prepared to deal with the next war or next financial stresses that will hit the region given its current financial and currency policies..

This policy of semi-fixed exchange rates supported by massive forex reserve accumulation is creating massive financial imbalances – excessive monetary and credit growth, a variety of financial asset bubbles, an excessive dependence on net exports and on US economic growth, an imbalanced pattern of aggregate demand – that will eventually end in a new and different type of financial crisis, a crisis that would occur sooner rather than later if the US experiences a growth hard landing.

Thus Asia appears to have learned only some of the lessons of its 1997-98 financial crisis (the need to have sound macro and financial policies). It has not learned the real lessons of the crisis, i.e. that fixed exchange rates and poorly managed financial markets eventually lead to a build-up of vulnerabilities that can cause financial crises. The return to effectively fixed exchange rate and massive forex reserves accumulation in a good part – but not all – of East Asia is thus a worrisome sign that the lessons of the past have not been appropriately learned. Current financial and currency policies in East Asia have the risks of planting the seeds of its next financial crisis, a crisis that will have features and characteristics that will be different from those of 1997-98. Such a crisis can be avoided but it will take East Asia accepting a true move to more flexible exchange rate regimes and a significant and rapid phase-out of the current reckless policy of accumulating forex reserves in ways that are excessive and financially dangerous for East Asia.

Today, a year after I wrote that paper on the risks that Asia and other members of BW2 faced, the main predictions and implications of that paper – that the BW2 regime will lead to asset bubbles and goods inflation that would put a severe strain on that regime – have developed exactly as then predicted.

As argued then the rational response for these economies was then to let their currencies to appreciate at a faster rate (and/or phase out their pegs) to avoid the further rise in asset and goods inflation. Some degree of extra exchange rate flexibility did occur in China, India, Russia, and Brazil but not in the GCC countries or Argentina. But even that greater flexibility was not significant as very aggressive forex reserve accumulation occurred among the BRICs and other emerging market economies at rates that actually accelerated in 2008 relative to 2007. Thus, by early 2008 inflationary pressures became severe – with rising and/or double digit inflation in a large set of emerging market economies – and

some asset bubbles started to deflate sharply (especially equity markets in China, Asia, GCC and other emerging markets).

By now inflation has become so high in so many emerging market economies that – in some dimensions – it is almost too allow these currencies to appreciate: inflation is so high that only an abandonment of pegs or of heavily managed rates and a very sharp nominal exchange rate appreciation would be able to control inflation Even in that case nominal appreciation would not be enough to control expected inflation: a much tighter monetary and credit policy – that is feasible only if enough exchange rate flexibility is allowed – would be necessary to control actual and expected inflation. But now the global economic outlook has much worsened with the US recession and the sharp economic slowdown in most advanced economies. The need to control inflation with a stronger currency and much tighter monetary policy in emerging markets is happening at a time when downside risks to growth are emerging in these countries because of the US recession and the slowdown in the advanced economies growth rate. Thus, emerging market policy makers face a serious dilemma: controlling inflation requires exchange rate flexibility and much tighter monetary and credit policy. But such policy may exacerbate the growth landing of these economies at the time when global conditions are leading to a sharp slowdown of growth in advanced economies that – in due time – will slow down exports and growth of the emerging market economies.

Thus, it is not obvious that the members of BW2 will decide to phase out this regime and move to greater currency flexibility and tighter monetary and credit conditions. Rising oil, energy and food inflation in these economies is already leading to popular unrest, riots and – in some cases – ruling governments being toppled. Thus, the last thing that these economies need is a sharp growth slowdown on top of socially unpopular rising inflation. That is why – while the rational choice would be phasing out BW2, allow greater exchange rate flexibility, regain monetary autonomy, allow currencies to appreciate and tighten monetary/credit conditions – many of these BW2 may be reluctant to follow this painful policy path.

Indeed, while some monetary tightening has occurred in emerging market economies it has been so far well behind the curve: the rise in policy rates has been much less than necessary to control actual and expected inflation. If – as possible – these economies refuse to do what is necessary to control the rise in inflation the outcome will be one in which inflation will rise further and become entrenched in these economies. If that were to be the case these economies will accept a higher – and possibly double digit - inflation rate as a way to avoid a sharp growth slowdown. Indeed, the recent rise in inflation in emerging market is becoming a true test of whether these economies are able and willing to stick to low inflation policies and/or to formal inflation targeting. In most emerging markets with inflation targets such targets have now been breached big time and in some of them – namely Turkey – formally abandoned as being unrealistic.

Also, if these economies will decide to accommodate most of the rise in inflation rather than fight it as a way to prevent an excessive growth slowdown the outcome will be one where the real appreciation of their currencies will occur through this process of rising

inflation. Thus, letting inflation remain high will effectively erode the competitiveness that the pegged or heavily managed currencies policies of BW2 had tried to maintain. Eventually the real appreciation had to occur: and since it was mostly not allowed to occur via a nominal appreciation it will occur – and it is now occurring – via a rise in inflation.

When this rise in inflation becomes significant and persistent three additional outcomes will emerge. First, the competitiveness will be eroded by rising inflation. Second, downward pressures will occur on currencies that from undervalued become – via high inflation – overvalued; an example of that is the case of Argentina. Third, the rise in commodity and goods inflation in emerging markets will lead to an ensuing rise in inflation in advanced economies. This may be thus the beginning of the end of the period of "great moderation" in the global economy where growth was high and inflation low. This great moderation was indeed in part due to the low inflation that the rise of China, India and other emerging markets – with their production of cheap goods and services – had generated. Imported inflation is certainly rising in the US because of rising import prices for goods from China and Asia, a weak dollar and commodity. And it is rising in other advanced economies – even in those whose currencies are rising relative to the US dollar – because of rising prices in emerging markets and in commodity markets.

Thus, even if the BW2 economies were to resist further their currency appreciation and desperately hold on BW2 - as the rate of accelerated forex accumulation in 2008 so far suggests – the result, like the demise of BW1 shows, would be a rise in global inflation that would – at some point – destroy BW2 as rising inflation would erode the competitiveness of the BW2 club. Thus, either way we are now closer to the end game of BW2: formally BW2 is still alive and well as the reserve accumulation is as aggressive as ever or even more aggressive than in 2006-2007 among many – but not all – members of the BW2 club. But continuing with BW2 is leading now – with certainty – to inflation becoming so unhinged in the BW2 club that the basis of undervalued currencies and export-led growth will be destroyed by the real appreciation that a rise in inflation induces. So the delusion – exposed by the proponents of BW2 – that this regime would last for 20 years or more is rapidly being challenged. Either way, we are now much closer to the end game of BW2.