Wednesday, May 14, 2014

Global Macro Themes –The Identity Crisis (Part 2)

In the first part of this research note we argued that the economic policies implemented to resolve the crisis still impacting the world economy are not only inappropriate but are actually exacerbating one of the main underlying contributing factors. In this article we explore what economic policies would work, and what would be required in order for them to be implemented. While such policies do exist – thankfully – they will radically transform the economic and financial landscape. Correctly anticipating what constitutes the real "exit strategies" will be the greatest challenge to asset managers over the coming years, but the rewards from getting it right will be considerable.

I Wouldn't Start From Here[1]

Anyone who has pondered the present state of the global economy for any length of time can hardly consider it to be in good shape. Global imbalances, while narrowing somewhat, are still large by historic standards and individual economies are miles away from internal balance as evidenced by very high debt levels and extreme income/wealth disparities. Moreover, as discussed in the first part of this research note, when the importance of wealth/income inequality and its role in the economic crisis is recognised, it turns out that the demand-side Keynesian policy response is not only ineffective but is exacerbating the problem. It therefore logically follows that overcoming the crisis requires different economic policies; policies that tackle the significant widening in income/wealth inequality observed over recent decades.

Despite having been largely overlooked, the importance of rising income/wealth inequality is at last starting to be recognised in policymaking circles[2] and suggests that we are on the cusp of major economic policy rethink; something that investors ignore at their financial peril.

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[1] This is the punch line to the infamous Irish joke about a tourist who asks one of the locals for directions to Dublin. It is also, a pretty apt description of the challenge facing policymakers.
[2] FOMC member Daniel Tarullo identified many of these issues in a very thoughtful speech on 9 April 2014 at the 23rd Hyman P. Minsky Conference. The title of his speech was "Longer-Term Challenges for the American Economy" and he identified four important developments: slowing productivity growth, the reduced share of economic growth claimed by workers, increased inequality and low economic mobility. All highly pertinent and important observations as we aim to show in this two part research note. It can be found at the following link http://www.federalreserve.gov/newsevents/speech/tarullo20140409a.pdf

Rising Inequality Interest

Further evidence of the renewed interest in wealth/income inequality is the success of a recently published[3] book by the French economist Thomas Piketty entitled "*Capital in the Twenty-First Century*"[4]. It is not often that an economics book, never mind one that is 640-pages long, tops the bestsellers list.

The theoretical framework presented in Piketty's book is very much in accordance with our thought process. We will refer to it in this research note because, while there is much to praise about this book (the data collection alone is a tremendous success), we disagree on the proposed policy. Employing the same theoretical framework helps to illustrate this divergence.

r > g: The Economic Equivalent Of E=mc²

At the heart of Piketty's economic analysis of wealth/income inequality is the comparison between the real rate of return on capital (which is calculated as the share of national income going to capital divided by the ratio of capital to national income and is denoted r) and the real rate of economic growth (denoted g). In an economy where both capital and labour equally share the fruits of economic expansion, the rate of return on capital equals to the rate of economic growth. However, based on long-run data sets, Piketty shows that this condition tends not to hold. Rather the historical record shows $r > g$; something he calls the "Fundamental Force for Divergence". It is a fairly trivial mathematical exercise to show that the long-run dynamics of this condition imply that,

"it is almost inevitable that inherited wealth will dominate wealth amassed from a lifetime's labor by a wide margin, and the concentration of capital will attain extremely high levels – levels potentially incompatible with the meritocratic values of social justice fundamental to modern democratic societies".

In other words, if the rate of return of capital is higher than economic growth, capital will accumulate faster than earned income (wages) and as capital tends to be concentrated (it is not evenly distributed across the population) it leads to rising inequality. Piketty argues that this is a fundamental characteristic of the capitalist system and is not self-correcting.

This is perhaps the boldest assertion in the book and the policy conclusions are largely derived from it. But is it true?

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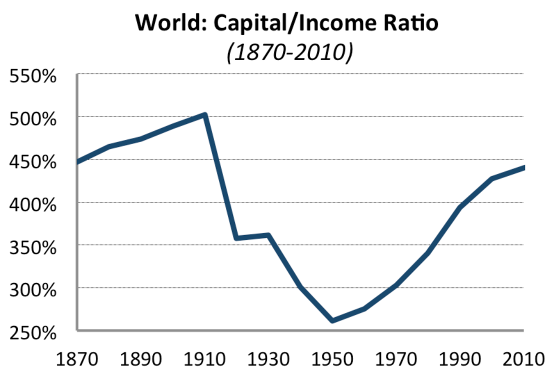
[3] At least the English translation of the book, which was only published out last month. The original French version was published last year.

[4] The present author only became aware of this book having almost finished the first part of this two-part research note. Our own thoughts on the rising wealth/income inequality witnessed since the post war period; its importance as a contributing factor to the economic crisis; and, finally, the implications that this has for macroeconomic policy have been formed over the past two years. As we will show in this research note our policy suggestions are markedly different from those offered by Piketty in his splendid book.

The Marxian Tradition

For those readers well versed in economic history, the notion that there is "infinite accumulation of capital" under a capitalist system is one instantly recognisable as Marxian. Marx famously predicted the (messy) end of the capitalist system either because capital would be accumulated to such a degree that its rate of return would be driven down to essentially zero (or perhaps even negative) or the labour share would be driven down (as required if the growing capital/income ratio does not lead to a drop in its rate of return) to socially unacceptable levels triggering a worker revolt.

The Marxian prediction that the rate of return on capital collapses to zero is totally refuted by Piketty's data. Indeed, Piketty shows for very long periods of time the r > g condition holds as evidenced by the data in the chart below which shows the evolution of the world capital to income ratio since 1870. What is clearly visible from the chart is that aside from the period 1910- 1950 the ratio of private capital to income ratio has steadily increased, consistent with the rate of return on capital exceeding the economic growth rate. As needs no further elaboration, the period 1910-1950 was not exactly a quiet period in world history, marred as it was by two world wars separated by the Great Depression!



Premised on this analysis Pekitty extrapolates the historic returns on capital and economic growth to derive a projection of private capital[5] to income ratio that continues to rise over the coming decades towards 700%.

Given that Marx's famous apocalyptic end to capitalism failed to transpire two alternative outcomes are possible: either the capital to income ratio eventually stabilises – the hypothesis put forward by Kuznet/Solow – implying that both labour and capital eventually equally share in the fruits of economic growth, or, alternatively, Piketty's hypothesis is correct and the capital/income ratio continues to rise without limit.

The first outcome, which is not supported in the least by economic data, appears to be a classic example of *dei ex machina*, or in less fanciful terms extreme wishful thinking. By the same regard, we equally disagree with Piketty's hypothesis that capital/income ratios inexorably rises under a capitalist system

[5] The data in the book clearly shows that for almost all economies capital is in the form of private as opposed to public wealth. While true historically the advent of sovereign wealth funds means that this is no longer valid for all countries.

until such time as the inequality leads to a fracturing in the social contract. To explain this we need to reconsider the nature of individuals within the economy

The Economic Duality Of Individuals

Rather like light in quantum physics, which can appear to act as both a wave and a particle, individual members of an economic system are simultaneously income earners and consumers[6]. This statement is so obvious as to be almost self-evident: without income an individual cannot consume. Similarly, the reverse holds: without consumption there can be no income, as the proceeds from consumption are what provide the income for the provider of goods and services. If we take Piketty's hypothesis that under a capitalist system capital to income ratios rise and capital takes an increasing share of national income due to $r > g$, then the logical conclusion is that Marx *must be* correct. Capital must, eventually, appropriate all national income leaving no income available for consumption. So, one wonders, where would profit or, more broadly, the income share of capital come from without consumption? The answer is nowhere. In effect, the rate of return on capital r would – *a fortiori* has to - decline to zero.

But, as mentioned above, and confirmed by the data presented by Piketty, Marx's famous prediction failed to come to fruition[7]. This is a point we need to address and to do so we need to borrow some of the analysis we presented in the first part of this research note, specifically the Kalecki profit equation.

Recalling the equation, which is based on a national accounting identity, it states the following:

Corporate Profits = Business Investment – Net Household Saving - Government Budget Balance + Current Account Balance + Dividends

This equation refers to corporate profitability whereas Piketty's analysis considers the return on capital in all its various forms (housing, financial and nonfinancial assets but – importantly - excluding human capital). However, we can easily transform the above equation to make it more compatible with this broader definition; a definition that we fully agree is the more appropriate.

[6] We acknowledge that many individuals are the recipients of transfer payments but this does not abstract from the point we are making.

[7] The Communist state established after the Bolshevik revolution, and which led to the banning of private capital, can now hardly be viewed as a viable alternative economic system. The break-up of the USSR more than anything illustrates that a committee, no matter how well intentioned, cannot allocate scarce goods more efficiently than a market-based system; an irony that seems lost on the governing boards of the world's central banks even though they are (presumably) populated by individuals well versed in economic theory!

To do this we just need to distinguish between earned income (i.e. the return from a labour input into the production process) and unearned income (i.e. the return from non-labour inputs, namely capital[8]). Using this broader definition of capital and making the distinction between earned and unearned income we can rewrite the Kalecki profit equation in a more general form, one consistent with Piketty's analysis:

Return On Capital =

– Net Household Saving From Earned Income - Government Budget Balance + Current Account Balance

Having derived the above equation, we are now in a position to speculate as why Marx's predicted demise of capitalism is not apparent in the data presented in the book despite the fact that r > g is also observed to hold for long periods of economic history.

Intertemporal Substitution

The return on capital – that is to say the capital share of income - can be maintained in the face of a rising capital/income ratio via increased dissaving by the household and/or government sectors and/or increased external demand. Essentially, the current return on capital is maintained by these two sectors "borrowing" future income and using it to support current consumption or by an economy "borrowing" demand from the rest of the world[9]. This process cannot continue indefinitely while the condition r > g holds because the rising capital share of income implies that worker or government dissaving or the current account imbalance has also to increase at a rate faster than the rate of economic growth. Nevertheless, via these mechanisms, the Marxian capitalist collapse can be delayed for a prolonged period.

Moreover, this hypothesis also is supported by economic data. As Piketty's points out in his analysis in the post-war period the rate of return on capital has remained relatively stable even in the face of a rising capital/income ratio. But, it is no coincidence that this reference period also witnessed a sustained increase in private sector indebtedness (as household's borrowed future income), a process that came to an end in the economic crisis that started in 2008, and was replaced by increased government indebtedness. Additionally, it is telling that during the gap between the start of private sector deleveraging (or increased

[8] Again, we are ignoring income transfers for simplicity, but this does not radically alter the analysis or conclusions.

[9] We use the term "borrow" growth from the rest of the world because this process cannot continue indefinitely as it implies sustained current account imbalances, which are not economically permissible as it would be tantamount to one country permanently gifting some of its economic growth to another country – a scenario that is unimaginable especially at the present time (even if it is not recognised by the EU bureaucrats).

saving) and public sector leveraging (via increased budget deficits or government dissaving) there was a substantial decline in both the return on capital and the capital share of income; an outcome entirely consistent with this analysis.

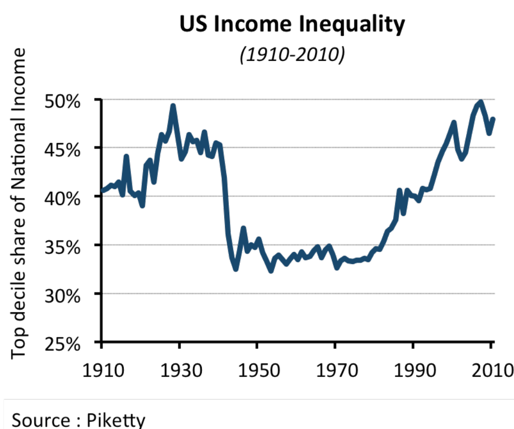
A Missing Piece Of The Jigsaw

In the above section we omitted to include another mechanism by which the Marxian end to capitalism can be delayed as we referred only to income effects. There is, however, also a price effect. The return on capital not only comes from a share of national income, but there is also a return attributable to a revaluation of asset prices. For example, the return from buying a residential property is not just the rental income received (which obviously is paid out of national income) but also the change in the price of the property.

Therefore, another way to delay the inevitable is for asset prices to continue to rise. Again though the pace of increase must, in order to make up for the rising capital share of income, be accelerating, implying that at some point - which is admittedly hard to define *ex ante* –asset prices are pushed well above any justifiable fundamental valuation and hence become a "bubble"; asset price behaviour that we have repeatedly seen during the past two decades.

Revisiting The Depression

As we have just argued recent economic trends support to our view that intertemporal substitution of demand either by households, or following the 2008 crisis, by governments[10], together with asset price bubbles can delay the day of reckoning. However, unlike Piketty we maintain that the capitalist system will eventually self-correct.



This correction will almost certainly not take the form of the benign correction envisaged by Kutznet or Solow, but is likely to be more in keeping with Hobbes's description of the life of man in his famous treatise Leviathan: *"nasty, brutish, and short"*[11].

In support of this recall the chart of US income inequality over the past 100 years that we included in the

[10] We are referring to deficit-financed fiscal stimulus, a process that is facilitated by central bank stimulus. (Such central bank activity also leads to intertemporal substitution as acknowledged explicitly by former BoJ governor Shirakawa in a 2012 speech entitled "Central banking – before, during, and after the crisis" . (See link: http://www.bis.org/review/r120329b.pdf)

[11] The full description is *"the life of man, solitary, poor, nasty, brutish, and short."*

first part of this research note (reprinted above). We first came across this chart in 2010 and one thing struck us immediately. US income inequality was at a similar level just prior to the 2008 crisis as it was just prior to the start of the 1929 stock market crash and the subsequent Great Depression. Coincidence? We doubt it!

The economic boom that defined the roaring twenties contributed to a sharp rise in income/wealth inequality. The subsequent decade starkly illustrated that this "boom" was largely a myth and certainly was not justified by improved underlying fundamentals. Despite what was clearly a very dreadful period in history – and not just economic – the one positive thing that came out of the tumultuous period 1929-1950 was a sharp decline in income/wealth inequality.

Reducing Income/Wealth Inequality

There are several possible mechanisms for reducing income/wealth inequality - an outcome that should be welcomed not just on the grounds of "fairness" but also because history suggests that extreme inequality is a precursor to periods of extreme economic volatility. The Great Depression is interesting in this respect because two of the mechanisms were actually implemented.

Liquidation: This policy, or perhaps better put non-policy, was attempted by US politicians as a first response to the 1929 stock market crash. The underlying economic philosophy is best described by President Hoover in his memoirs,

"The 'leave-it-alone liquidationists' headed by Secretary of the Treasury Mellon...felt that government must keep its hands off and let the slump liquidate itself. Mr. Mellon had only one formula: 'Liquidate labor, liquidate stocks, liquidate the farmers, liquidate real estate'....He held that even panic was not altogether a bad thing. He said: 'It will purge the rottenness out of the system. High costs of living and high living will come down."

The "rottenness" of the system refers to the notion that the preceding boom fuelled investor optimism leading - as it always does - to overconfidence and investments are made, which *ex post* prove to be poor. By poor we mean the realised returns from these investments fail to cover the cost of the initial investment outlay and the provision of an appropriate rate of return. Liquidating these malinvestments, releases the factors of production tied up in these unprofitable ventures making them available for alternative, more productive, ventures.

The great positive aspect of this solution is that it is market-based which, in our view, overcomes what we call the "committee-approach bias" (see footnote 5 above) and is the first best adjustment mechanism. However, there is a substantial problem with this solution. As we wrote in the first part of this research note, the liquidation route results in the private sector seeking to shed what it now considers to be an excessive debt load. Given debt is what backs

money in a fractional reserve banking fiat system this generates substantial deflationary pressures. How toxic these deflationary pressures prove to be is – unsurprisingly - dependent upon the degree of debt in an economy. This, perhaps rather obvious, conclusion is supported by economic research from the BIS[12].

Again, referring back to the first part of this research note, global indebtedness at the present time is at it historic highs, at least for peace-time economies, and greatly exceeds levels witnessed just prior to the Great Depression. This suggests that the market-based adjustment process, even if arguably the most efficient, would be extremely painful; leading to surging unemployment rates, huge declines in global asset prices and with God only knows social ramifications[13][14]. Nevertheless, it would serve to narrow income/wealth inequality.

The reason for this is clear if we consider, as most asset price models do, that that an asset price represents the net present value of the future income stream. In a sense the price of an asset can therefore be considered a "stock" of future income "flows". While the liquidationist route implies lower current income due to the deflationary forces unleashed, given uncertainty as to the duration of the adjustment process and hence the negative effect on future income flows, the stock effect stands to be even greater resulting in a narrowing of wealth/income differentials.

Global Wealth Tax: This is the preferred method for Piketty and it is undoubtedly one with solid theoretical credentials. As outlined in the book, the policy solution is for a progressive taxation on capital along the following lines: a zero rate for net assets below EUR 1mn, a 1% rate for net assets between EUR 1-5mn and a rate of 2% for net assets above EUR 5mn[15], to be applied annually.

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12 Borio and Filardo (2004) "Back to the future? Assessing the deflation record", BIS Working Paper No. 152. See: http://www.bis.org/publ/work152.pdf

13 There is one school of thought that argues, convincingly in our view, that the tremendous social cost of the Great Depression provided fertile ground for the rise in the Nazi's in Germany and hence was a direct contributing factor to the Second World War. In other words, the social precedent is not terribly attractive.

14 At the risk of distracting the reader (hence why this has been relegated to a footnote) we would like to raise a key point here. While we would not advocate the market-based liquidation policy given the current state of the global economy, this should not be viewed as a criticism of this policy. Unlike policymakers and advocates of Keynesian policies who also oppose such policies we are not ideologically against this solution. The problem is not with the solution *per se* but rather the prevailing condition of the global economy. If it were not for the extreme levels of indebtedness in all the major economies, our strong preference would be for such a liquidation policy to be adopted. However, we must be realistic and acknowledge that we are far away from such conditions. It is also our judgment that one of the major reasons why this is the case is exactly because Keynesian policies have been adopted – and extremely badly – in the preceding decades. Not only that, but as we concluded in the first part of this research note, the perpetuation of these policies are exacerbating wealth/income inequalities and hence impeding the resolution of this crisis.

15 The tax rates suggested are for illustrative purposes only, but it is the progressive nature of the proposed tax that is the key point.

The application of an annual progressive tax on capital clearly will serve to bring about wealth/income inequality, as it implies a direct transfer of monies from the wealthy to the rest of the population.

There are several reasons why such a proposal is attractive to government officials, which goes a long way to explain the popularity of the book and Piketty's proposal in policymaking circles. Not only does it increase the role of the state (imagine how many additional government employees would be required to ensure compliance with this new tax), it also requires increased transparency and full disclosure on a private individual's financial holdings and – as Piketty's suggests – likely requires automatic international transmission of banking data. Finally, it would also provide governments with a much-needed additional source of tax revenue to help reverse the rise in public sector indebtedness resulting from their policy response to the crisis.

While it is always tempting to conclude that any policy proposal that increases government influence in the economy should be rejected solely on those grounds, there are indeed very serious obstacles to this proposal.

The first and most obvious obstacle is that a wealth tax would have to implemented on a worldwide basis. Failure to do so would provide wealthy individuals with the opportunity to engage in tax regulation arbitrage, something they easily have the resources to do. Also, it does not take much to imagine that any country that offers a more favourable tax regime would see large capital inflows from wealthy individuals seeking to avoid the tax in their home country. The advantage to the recipient country from such capital inflows is that it would allow it to fund a current account deficit remarkably cheaply – possibly even at negative nominal rates of return – which would be potentially attractive to a capital-starved/labour-rich low GDP per capita economy[16].

Avoiding such an outcome would require global financial sanctions against any country not imposing the wealth tax (feasible but hardly optimal) and almost certainly the "unplugging" of the country from the internet, given the ability to make anonymous capital transfers thanks to the development of virtual currencies[17]. Given the failure of leading governments to cooperate on many existing pieces of legislation, we consider this to be a very serious problem with the Piketty global wealth tax proposal; in fact we would go as far as to say that it is utterly impractical to implement. Piketty, rightly, acknowledges this by describing his proposal as a "utopian idea" adding that it is hard to imagine the "nations of the world agreeing on any such thing anytime soon".

A second issue that the global wealth tax proposal is: who would it be applied to? Would Sovereign Wealth Funds, a relatively new class of investor, be exempt

[16] There are quite a few of those economies around.
17 The most famous virtual currency is Bitcoin a topic we covered in a prior research note see *"Global Macro Themes – Bitcoin: The World's Hardest Currency?"*, 11 December 2013.

from such a tax? For some countries the distinction between a private and public investors is fairly straight-forward. However, for many sovereign wealth funds, especially amongst oil exporting nations, the distinction is much less clear.

Applying a 2% global wealth tax on these institutions would have very profound economic implications. Consider, for example, the situation of the UAE, a country that we are familiar with. The net foreign asset positions of the combined wealth funds of the UAE are not publically disclosed. However, according to most estimates their combined wealth is in the region of 300% of nominal GDP[18]. Assuming that the top rate of tax proposed by Piketty is applied to this total asset pool, then in effect the UAE would be required to transfer 6% of its nominal annual GDP to the rest of the world, every single year. It is hard to envisage such countries viewing annual overseas transfers of this scale as being acceptable.

By the same token, exempting such funds is equally impractical. In many regards sovereign wealth funds are analogous to a public pension fund in that the asset pool is to provide for future income. So, while assets held by individuals in private pension funds would, presumably, be subject to the annual wealth tax tax, the same wealth, if held in the form of a public pension fund, would not: a very arbitrary and wholly inequitable distinction. In addition – and this is the greatest issue that the Piketty proposal has in relation to exempting sovereign wealth funds because it invalidates the internal logic of the argument –if as assumed in his analysis r > g holds then exempting even the smallest sovereign wealth fund means that its capital size will eventually expand to absorb all global income. Only by applying the tax rate to all sources of capital – including that held by such sovereign entities – does the logic of the analysis hold together.

Negative Consequences

So far we have criticised the global wealth tax proposal purely based on implementation issues. There are, nevertheless, other problems with this proposal, problems that could be described as “unintended consequences”. We are sure with a bit more thinking time the list is longer than three, but below are three we most readily envisage:

Government Debt: One very obvious consequence of the monetary stimulus provided by central banks in the developed world since 2008 is that government bond yields across the maturity spectrum have been driven down to historically low levels. For example, not a single G7 nominal government bond offers an annual rate of return above 3%; Japan’s government bond yield is the lowest at just 0.6%. If these bond holdings were subject, let’s us assume, to the top rate of wealth tax proposed by Piketty, then they would offer barely any nominal, never mind, real return. This raises the very obvious question: why would wealthy

[18] See: http://www.swfinstitute.org/fund-rankings/

individuals or, as outlined above, sovereign institutions which are subject to the wealth tax continue to hold government bonds? In short, they wouldn't.

Admittedly there are many reasons why wealthy individuals, or probably better put, significant pools of capital invest in government bonds (portfolio diversification and the associated concept of its use as a tail-risk hedge; a function that has necessarily declined in tandem with the fall in bond yields and the inverse rise in bond prices). That said, there is no question that generating a financial return is also a significant element in this calculation. The application of a global wealth tax, therefore significantly reduces the relative attractiveness of government debt. The rational response to the implementation of a global wealth tax would be for government bond yields to rise as existing holdings are sold; a process that would continue until the level of the yield increases sufficient to provide the market-required after-tax nominal rate of return. This backing up of long-term interest rates will have a deleterious impact on global asset prices; good for wealth/income inequality but undoubtedly bad from the perspective of global economic growth prospects.

Investment: Applying a global wealth tax will also likely be detrimental to global economic growth via its effect on investment. Assume a business venture proved to be highly successful, generating a substantial return in the form of future income. If this income were not immediately spent it would increase the investor's wealth and potentially qualify for the wealth tax. Even though the eventual success of any investment projection is uncertain, the risk that future returns could be subject to the wealth tax is known *ex ante*. This clearly, therefore, increases the cost of an investment project. In this way imposing a progressive global wealth tax would act as an additional impediment to business investment, which as all economic students know, is one of the components to economic growth.

Consumption Inequality: The premise of applying a progressive global wealth tax is to redistribute the share of the economic pie more evenly and hence overcome wealth/income inequality. The argument is made both on economic and social grounds and seeks to ease tensions between the various segments of society. However, the implementation of a global tax could actually backfire and increase social tension because of the potential impact upon consumption by the wealthy.

Faced with a wealth tax of 2%, any capital owner has an incentive to spend the income earned within a given tax year that would otherwise end up in the government's hands. This is especially true of windfall income (say a successful hedge fund trader has a great year and earns a substantial one-off bonus). Rather than pay this to the taxman, possibly over a period of years, the incentive is to consume some part of this income. Given the sums of money often involved this could easily generate some very conspicuous consumption behaviour and while wealth/income inequality might be socially divisive, at least in some sense this is hidden as not everyone walks around with payslips or household balance sheets

on display. Consumption is, by contrast, much more visible and therefore likely to be even more socially divisive.

Inflation: This is the tried-and-tested route to shed an excessive debt load in an economy. Unlike the liquidationist approach, the adjustment takes place in nominal values rather than real (or inflation adjusted) values and, as such, tends to result in a smoother adjustment process. But be under no illusion, it does not imply that the cost of adjustment is lower or can be avoided outright (someone, somewhere, will bear the cost of the adjustment) but rather it is smoothed out over time. However, how does it address the wealth/income inequality aspect of the crisis?

Let us assume that a central bank embarks on a deliberate reflationary policy. Initially real income for workers declines as nominal wages fail to keep pace with the increase in prices. However, over time, workers will start to adjust upwards their inflation expectations[19] and will begin to demand higher nominal wages to compensate, giving them a larger share of the economic pie and so reduce income inequality. While it would be nice to think that this process would occur smoothly, it is unlikely to be so. Almost certainly it will be associated with increased industrial action and unionisation of the workforce so as to strengthen wage bargaining power.

As alluded to above, generating inflation is a remarkably uncertain process. While the staunch monetarists would have one believe that there is a direct (almost one-for-one) relationship between changes in the money supply and changes in the aggregate price level (namely inflation) there is no such direct link. After all, consider the high inflation predictions made in the wake of central bank asset purchase programmes initiated in 2009, which caused the monetary base to expand rapidly. Several years later and CPI inflation (even if imperfectly calculated) has still failed to rise markedly due to the collapse in the money multiplier. As a result, a central bank that deliberately pursues a reflationary policy is highly uncertain as to what the actual outcome will be. The same also holds for investors. There is significant uncertainty about how inflation will evolve. This uncertainty is likely to be reflected by investors seeking a higher risk premium, which acts as a weight on asset prices[20].

[19] The speed at which this adjustment process occurs is crucially dependent upon the credibility of the central bank concerned. If the central bank is believed to be credible in achieving its higher inflation outcome, then private sector inflation expectations would move higher quickly, and vice versa.

[20] In his book Piketty discusses the use of higher inflation as a method to redistribute wealth. One of his objections to this method is that inflation is hard to control once started given the experiences of the 1970s and 1980s with wage/price spirals. We agree with these concerns but do not see this as an insurmountable problem. Indeed as former BoE Governor King stated in one of his Inflation Report press conferences (it was several years ago but it escapes our memory as to when it was specifically) bringing inflation down is intellectually easy, just jack interest rates up to 50% and wait. The comment was flippant to some extent but the conclusion is, nevertheless, valid.

Final Thoughts

This latter route, in our view, represents not only the least bad option[21], but it is also the most implementable from a practical macroeconomic policy standpoint. Indeed, there is considerable historical precedent. That said, just because it is possible does not mean it is easy; far from it! We are not talking about such economic nonsense as the liquidity trap, but rather the substantial impediments due to intellectual, institutional and - most important of all - political constraints.

This tension between optimal economic policy and political reality is nothing new as noted by arch-Keynesian Paul Krugman:

"The economically rationale policies are not politically acceptable. The politically possible solutions are not economically rationale".

We would suggest an amendment to the above quote, with the insertion of the word **yet** after "politically acceptable". That global policymakers are taking Piketty's proposal of a global wealth tax seriously highlights that wealth/income inequality is very high up the political agenda and that policies to address rising wealth/income inequality need to be forthcoming, and soon. Where we differ from Piketty is regards what policies can and will be implemented to bring this about. Using higher inflation, as opposed to imposing a global wealth tax, seems a much more likely option.

As this article has already become quite long (and no doubt tested the patience of even the most diligent reader[22]) we will conclude this research note at this point. Our next research note will examine in greater detail the specific process required to generate higher inflation, because as we noted above, it is much more complex than first assumed. We will also share our thoughts on the financial market implications, which as we mentioned in the introduction will be very profound and, for those that correctly anticipate them, very profitable. Watch this space.

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[21] We need to add the caveat here that it is the least bad option given the current state of the global economy. If indeed we were not "starting from here" we would hold a different view (see footnote 14).

[22] Congratulations on staying the course and getting this far.