A lot of things have happened in China since my last entry – in the FX markets, in the banking system, in the announcements of default, and in the continuing lowering of growth expectations – but for all the turmoil, as I see it nothing has happened that was unexpected and that has not been discussed many times on this blog. For that reason I decided to post a rather long essay (sorry) on income inequality and on how I think we can best think about the impact of income inequality on the global economy.

This is a loaded topic, and I suspect I am going to get a lot of responses claiming that my essay is totally brilliant or totally nonsensical based, mainly, on the political orientation of readers. This entry, however, is not intended to be political. Very few things in economics are good or bad in themselves, but rather can be good under certain conditions or bad under others. I want to try to tease out as logically as I can the conditions under which rising income inequality can be good or bad for the economy.

That is all I am trying to do. My logic may be faulty and my assumptions may be wrong, and I invite readers to challenge either, but none of this should be seen as moral or immoral. Income inequality may very well be one or the other for very solid social, political or even religious reasons, but I am interested here only in the logical economic outcomes of income inequality.

Digging deeper into the model I use to understand income inequality also allows me to dig deeper into the sources of global imbalances – the two are tightly interlinked – and how these imbalances have driven much of what has happened around the world in the past decade. This model rests on an understanding of how distortions in the savings rates of different countries have driven the great trade and balance-sheet distortions with which we are wrestling today, just as they have in most previous global crises, including those of the 1870s, the 1930s, and the 1970s. Rising income inequality is key to understanding this model.

It turns out that it is actually not that hard to work through at least one of the major economic consequences of rising income inequality. I would argue that from an economic point of view the income inequality discussion is mainly a discussion about savings, and when you introduce into the economy a systematic tendency to force up the savings rate, the economy must respond in what are only a limited number of ways.
As I will show, some of these responses require an unsustainable increase in debt, and so are temporary. There are, it turns out, two sustainable responses to a forced increase in the savings rate in one part of the economy. The first is an equivalent increase in productive investment (this, I think, is the heart of the supply-side “trickle down” theory). The second is an increase in unemployment.

Much of what I am going to argue is not new, and is merely a revival of the old “underconsumption” debate. Before jumping into the argument I want to start by quoting the remarkable former Fed Chairman (1932-48) Marriner Eccles, who may well have been the most subtle economist of the 20th Century, from his memoir, *Beckoning Frontiers* (1966):

> As mass production has to be accompanied by mass consumption, mass consumption, in turn, implies a distribution of wealth – not of existing wealth, but of wealth as it is currently produced – to provide men with buying power equal to the amount of goods and services offered by the nation’s economic machinery. Instead of achieving that kind of distribution, a giant suction pump had by 1929-30 drawn into a few hands an increasing portion of currently produced wealth. This served them as capital accumulations.

> But by taking purchasing power out of the hands of mass consumers, the savers denied to themselves the kind of effective demand for their products that would justify a reinvestment of their capital accumulations in new plants. In consequence, as in a poker game where the chips were concentrated in fewer and fewer hands, the other fellows could stay in the game only by borrowing. When their credit ran out, the game stopped.

The key point here is that all other things being equal, rising income inequality forces up the savings rate. The reason for this is pretty well understood: rich people consume a smaller share of their income than do the poor. The consequence of income inequality, Eccles argued, is an imbalance between the current supply of and current demand for goods and services, and this imbalance can only be resolved by a surge in credit or, as I will show later, by rising unemployment.

Rising income inequality reduces demand. It does so in two ways. First, it directly forces down the consumption share of GDP, and second, it reduces productive investment by reducing, as Eccles says, “the kind of effective demand for their products that would justify a reinvestment of their capital accumulations in new plants.”

But – and here is where I will presume to add something new to the historical debate about income inequality and underconsumption – there is another very important form of rising income inequality that also forces up the savings rate in a very similar way, and this has been especially important in the past two decades. A declining household share of GDP has the same net impact as rising income inequality.

We have seen this especially in places like Germany and China during the past decade. In both countries policies were implemented which, in order to spur growth and, with it, employment, effectively transferred income from households to producers of GDP.
The main form of this transfer, in the case of Germany, was an agreement around fifteen years ago to restrain wage growth. By keeping wage growth lower than productivity and GDP growth, unit labor costs declined in Germany and German workers became more "competitive" in the international markets. This forced up the German savings rate and converted Germany's current account from large deficits in the 1990s to the largest surpluses in the world.

In the case of China there were also restraints on wage growth relative to productivity growth – not so much a policy choice, I would argue, but a consequence of the huge number of underemployed rural workers in China – but there were at least two other very important transfers. First, China has had an undervalued currency ever since 1994, which acts as a spur to growth in the tradable goods sector by effectively taxing foreign imports (and notice, by the way, that something similar happens in Germany, which also has an "undervalued" euro in relationship to the "overvalued" euro of countries like Spain, Italy and France). This reduces the real value of household income as a share of GDP.

Second, and most importantly, interest rates in China have been severely repressed during much of this century, perhaps by as much as five to ten percentage points or more. This has acted as a huge transfer from net savers, who are the household sector for the most part, to net borrowers, who consist mainly of manufacturers, infrastructure developers, real estate developers, state-owned enterprises, and government entities.

In both cases, and this is true of other countries, especially if they have large state sectors, one of the consequences of these hidden transfers is that GDP, which is the total production of goods and services, rose faster than household income for many years, meaning that households retained a smaller and smaller share of the total amount of goods and services they produced. Of course as the total share of GDP they retained contracted, it is not a surprise that they also consumed an ever-declining share of GDP.

**The squeezing of the household sector**

Notice how this affects total savings. Even if German or Chinese households kept their savings rates steady (i.e. they consumed and saved the same share of their income as before), their consumption as a share of GDP had to decline in line with the household income share of GDP. Most consumption is household consumption, and so as household consumption declines as a share of GDP, total consumption also tends to decline as a share of GDP, which is just another way of saying that total savings rise as a share of GDP.

This is a point that is often missed. Rising income inequality can have the same impact on savings and consumption as a rising state or business share of GDP. In a country in which the state retains a growing share of GDP, the net impact on savings and consumption is almost identical to that of a country in which income inequality is rising. In both cases consumption tends to decline and savings to rise as a share of GDP.
This tendency for rising income inequality, or a rising state share of GDP, to force up the savings rate can be a good thing. If there is a large amount of productive investment that needs to be funded, and not enough savings to fund this investment, increasing the savings rate can cause an equivalent increase in productive investment, and this increase can create sustainable demand for new jobs. Notice that these new jobs force up the total amount of goods and services produced, so that ordinary workers will see their income increase even as income inequality increases. The rich will do very well, but the rest will do pretty well too.

But what happens if there is already enough savings to fund productive investment? In that case the impact of rising income inequality is very different. To understand why, let us assume a closed economy with a moderate amount of unemployment (until we begin interplanetary trading the world is a closed economy). We can define the total amount of goods and services produced, which we usually refer to as GDP, in two ways.

First, everything that we produce must be absorbed, and the two ways we can absorb it is either by consuming the goods and services we produce, or by investing them today for future consumption. GDP, in other words, is the sum of everything we either consume or invest, or to put it arithmetically:

\[ GDP = \text{Total consumption} + \text{Total investment} \]

This is true by definition. Second, because our total income is equal by definition to the sum of all the goods and services we produce, and there are only two things we can do with our income, consume it today or save it for future consumption, GDP is also by definition the sum of savings and consumption, or, to put it arithmetically:

\[ GDP = \text{Total consumption} + \text{Total savings} \]

From these two equations it is obvious that in any closed economy savings is always equal to investment. This simple truth, which is true by definition, has very powerful implications.

Let us assume now that something has happened that caused a transfer of wealth in our economy from the poor to the rich, or that caused the household share of income to drop. To make things simpler we will assume that this transfer occurred without changing GDP, so that the total amount of goods and services is unchanged, but now ordinary households retain a smaller share. This transfer of wealth must have an impact on both total savings and total consumption.

At first the impact might seem obvious. Total consumption will decline and total savings will rise. But it is not that obvious. In order to maintain the balance expressed in the two equations, mainly the requirement that savings is always exactly equal to investment, something else must happen. There are only two possible things that can maintain the balance:

1. Investment must rise in line with the increase in savings.
2. Savings in fact do not rise, which implies that any increase in savings caused by the transfer of wealth was matched by some other event that caused an equivalent reduction in savings.

I apologize if these sound obvious, but I want to keep the flow of the argument as logical as possible, and so I hope each step follows obviously from the prior step.

Let's take the first condition. Will investment rise? There are, again to be terribly obvious, only three ways investment can rise.

1. There can be an increase in productive investment.

2. Unproductive investment can rise in the form of unwanted inventories.

3. Other forms of unproductive investment can rise.

What causes investment to rise?

Let's consider each of these three in turn before we consider our second possibility, that savings in fact do not rise.

1. There can be an increase in productive investment.

This is obviously the best-case scenario. The tendency to increase the savings rate is met by an increase in productive investment that exactly matches the reduction in consumption. The combination of an increase in productive investment and a reduction in consumption keeps total demand constant, so that there is no imbalance (in the aggregate, of course) between the total demand for and the total supply of goods and services produced by the economy. Because the increase in investment is productive, however, over time total goods and services will grow, and, presumably, households will be able to increase their consumption in the future.

How likely is this to be happening in the current environment? It is probably not very likely. It is hard to believe that in rich countries, like the US, there are a lot of productive investments that are neglected simply because there is an insufficient amount of savings to fund them.

I am not saying that every productive investment in the US has already been made, but just that if there are productive investments that remain unfunded, it isn't because of insufficient savings. It might be because of political gridlock, high levels of uncertainty, or something else. Of course it could also be because interest rates are too high, in which case rising income inequality would, presumably by increasing the total amount of savings, cause interest rates to drop. In that case there might indeed be an increase in total productive investment.
But here is where we run into the problem signaled by Eccles. Because the purpose of investment today is to increase consumption tomorrow, if the increase in income inequality is expected to be permanent, the desired amount of productive investment is actually likely to decline. This is because, to quote Eccles again, lower expected consumption would reduce “the kind of effective demand for their products that would justify a reinvestment of their capital accumulations in new plants.”

2. **Unproductive investment can rise in the form of unwanted inventories.**

This, as I understand it, is the process Keynes eventually described after his famous 1930 debate with Ralph Hawtrey. The process is quite easy to explain. As income inequality rises, total consumption tends to decline.

Because there is no equivalent increase in productive investment, the economy finds itself producing more goods and services that it can absorb, and the balance piles up as unwanted inventory, which is a form of unproductive investment. Of course manufacturers are unwilling to pile up infinite inventory levels so this process must eventually stop. Rising inventory levels, in other words, can only be a temporary counterbalance to rising income inequality.

3. **Other forms of unproductive investment can rise.**

The third way for investment to rise is if the additional savings are used to fund other forms of unproductive investment. Perhaps the tendency for savings to rise without an equivalent increase in productive investment forces down interest rates, with suddenly-cheap capital leading to speculative behavior. Charles Arthur Conant wrote about this extensively at the turn of the last century:

*For many years there was an outlet at a high rate of return for all the savings of all the frugal persons in the great civilized countries. Frightful miscalculations were made and great losses incurred, because experience had not gauged the value or the need of new works under all conditions, but there was room for the legitimate use of all savings without loss, and in the enterprises affording an adequate return.*

*The conditions of the early part of the century have changed. Capital is no longer needed in the excess of the supply, but it is becoming congested. The benefits of savings have been inculcated with such effect for many decades that savings accumulate beyond new demands for capital which are legitimate, and are becoming a menace to the economic future of the great industrial countries.*

Conant’s point was that “congested” capital would end up in speculative investments that were not productive – vast tracts of empty apartment buildings, or spectacular but mostly empty airports, railroad lines, super highways and other infrastructure, or increases in manufacturing capacity even in industries that are experiencing overcapacity, or perhaps in a very expensive sporting event – but would nonetheless seem profitable because of the expectation that asset prices would continue to rise. These investments, whose
low productivity will result in debt rising faster than debt-servicing capacity, can go on for many years, to the point where the implicit losses would have to be recognized, but this is clearly not a sustainable solution to excess savings because it requires limitless debt capacity.

Needless to say this seems to have been a pretty good description of recent investments in places as far apart as Arizona housing tracts, Dublin apartments, extravagant but unused Spanish airports, Chinese ghost cities, or Chinese solar manufacturers. We have seen a lot of this before the global crisis of 2007-08, and the seemingly obvious conclusion it that the tendency to increase the savings rate beyond the productive needs of the economy was balanced at least in part by a surge in speculative and unproductive investments.

These three are, logically, the only three ways we can balance the tendency for an increase in savings to be matched with a corresponding increase in investment. Either productive investment rises because productive investment had been constrained by insufficient savings, or unproductive investment rises, either in the form of unwanted inventory or in another form. The first is our best-case scenario, although for the reasons I have noted it is unlikely to describe conditions today, especially in capital-rich countries like the US. The second and third ways are unsustainable because they actually destroy value by increasing debt faster than they increase debt-servicing capacity.

What prevents savings from rising?

I said however that there is a second perfectly obvious way we can maintain the balance between savings and investments even if there is a substantial wealth transfer from ordinary households (either to the rich, or to the state sector). It is possible that total savings in fact do not rise, which implies that any increase in savings caused by the transfer of wealth was matched by some other event that caused an equivalent reduction in savings.

As far as I can work out there are really only three logical ways a transfer of wealth is consistent with no change in the total savings and consumption shares of GDP.

1. The wealthy or the state consume as much as ordinary households.

2. Ordinary households increase their consumption rate and reduce their savings rate.

3. Unemployment rises.

Again, let us consider each of the three so that we can list the possible outcomes.

1. The wealthy or the state consume as much as ordinary households.
Clearly this hasn't happened and is unlikely to happen in the future. Both common sense and all historical precedent suggest that except perhaps over very, very long time periods, consumption does not rise linearly with income and households consume a far greater share of their income than the state sector can. This might not be true of income inequality between countries, by the way, but that shouldn't matter.

2. **Ordinary households increase their consumption rate and reduce their savings rate.**

This, which is what happened in the United States and peripheral Europe, is one of those brutally obvious points that so many commentators and economists have failed to grasp. I think the mechanism is fairly easy to understand and has already been much discussed, for example well over 100 years ago by John Hobson who showed how rising income inequality can cause both higher savings and lower opportunities for productive investment. The difference, he argued, poured into speculative stock, bond and real estate markets or was exported abroad to finance foreign demand for home products.

As money poured into stock, bond and real estate markets, either at home or abroad, it caused these markets to soar, making everyone feel richer. The consequence was that although ordinary households saw their share of total GDP decline, rising asset prices nonetheless made them feel wealthier, and encouraged them to maintain or increase their consumption.

Higher savings generated by the rich or the state, in other words, were matched by lower savings (or rising debt, which is the same thing) among ordinary households. Of course this can only be sustained if asset prices rise forever, but assets are locked into a circular process in which rising asset prices cause rising demand and rising demand justifies higher asset prices.

It takes rising debt to combine the two processes, so it is only a question of time before we reach debt capacity constraints, in which the system has to reverse itself, which it did in the developed word as a consequence of the 2007-08 crisis. This process, in other words, is the default reaction to a forced increase in the savings rate in one part of the economy, but it is not sustainable because it requires a permanent rise in consumer debt.

3. **Unemployment rises.**

There is another way you can force down the savings rate, and this is by closing down factories and firing workers. As workers are fired, their income drops to zero. Their consumption, however, cannot drop to zero, and so they dip into their savings, borrow from friends and relatives, receive unemployment compensation, or otherwise find ways to maintain at least some minimum level of consumption (crime, perhaps, or remittances).

Of course savings is just GDP minus consumption, and so as their production of goods and services drops relative to their consumption, by definition the national savings rate declines. This balances out the higher savings generated by rising income inequality.
If the savings rate in one part of the economy rises, without an equivalent rise in investment the only way for the economy to balance is for savings elsewhere to decline, and this can happen either in the form of a (usually credit-backed) consumption binge, or in the form of rising unemployment. The first is unsustainable.

Once we understand this it is pretty easy to explain much of what has happened in the global economy over the past decade or two. As an aside, it may seem strange to many to think that excess savings is not a good thing. We are used to thinking of thrift as good for us, and even more thrift as better, and this belief is embedded with so much moral certainty that we react with repugnance to anyone who suggests otherwise. Bernard Mandeville’s *Fable of the Bees* was famously hated in the early 18th Century for suggesting that if we all saved everything we would all be destitute, and John Hobson, in his “Confessions of an Economic Heretic” tells how his teaching assignment was rejected because of the intervention of an Economic Professor who had read my book and considered it as equivalent in rationality to an attempt to prove the flatness of the earth. How could there be any limit to the amount of useful saving when every item of saving went to increase the capital structure and the fund for paying wages? Sound economists could not fail to view with horror an argument which sought to check the source of all industrial progress.

But excess thrift is a much more serious problem than insufficient thrift. There are two reasons besides moral outrage why we get confused about the value of savings. First, and obviously, because more savings is good for individuals, we assume that it must be good for society. It shouldn’t take long to see why this is simply wrong.

Second, most economic thinking is implicitly about the US or the UK (most economic theory comes from economists trained in one or the other country). Because these countries have had a problem in the past several decades with excessive consumption and insufficient savings, we assume that these are universal problems. We want global savings to rise because we want US savings to rise, because what is good for the US must be good for the world, right?

**The global imbalances**

Before using this model to examine recent history I think it would be useful to summarize. If the savings rate rises in any part of a closed economic entity, like the global economy, it must be counterbalanced by at least one other change that allows the savings and investment balance to be maintained. Either the investment rate rises, in the form of productive, or unproductive, investment, or the overall savings rate does not rise because it declines in some other part of the economy.

We are left with the table below that shows the six ways that an increase in savings caused by rising income inequality or a rising state share of GDP must be counterbalanced. Each counterbalance is shown to be sustainable or unsustainable.
<table>
<thead>
<tr>
<th>Counterbalance</th>
<th>Condition</th>
<th>Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in productive investment</td>
<td>This might happen if total desired investment had been constrained by insufficient savings</td>
<td>Sustainable</td>
</tr>
<tr>
<td>Rising inventories</td>
<td>If factories maintain production even as sales decline, inventories will automatically rise</td>
<td>Not sustainable</td>
</tr>
<tr>
<td>Increase in speculative investment</td>
<td>If there is excess capital beyond productive investment, it will flow into non-productive investments</td>
<td>Not sustainable</td>
</tr>
<tr>
<td>Linear change in consumption</td>
<td>If consumption rises with income, income inequality need not create a demand shortfall</td>
<td>Sustainable but a seemingly impossible outcome</td>
</tr>
<tr>
<td>Increase in credit-financed consumption</td>
<td>If households feel wealthier thanks to rising asset prices, they will embark on a consumption binge funded eventually by debt.</td>
<td>Not sustainable</td>
</tr>
<tr>
<td>Increase in unemployment</td>
<td>If production of goods and services exceeds the demand, factories will fire workers until supply and demand once again balance</td>
<td>Sustainable</td>
</tr>
</tbody>
</table>

From this table the problem of income inequality is obvious. There are only two sustainable solutions to the problem of a structural increase in the savings rate. Either we must see an increase in productive investment – which is unlikely except in specific cases in which desired productive investment has been constrained by lack of capital – or we must see an increase in unemployment. Nothing else is sustainable.

There are intermediate steps, but because these require debt to grow faster than debt servicing capacity, they can only continue until debt levels are so high that the market becomes unwilling to allow them to continue to rise. These intermediate steps are easy to understand. At first, in order to keep unemployment from rising, the excess savings can fund a surge in speculative investment or a surge in consumption, or both, with the latter kicked off by the wealth effect that is often a consequence of a surge in speculative investment.

This is exactly what seems to have happened to the global economy. As savings were force up structurally, whether because of rising income inequality or a declining household share of GDP, the system responded in ways that were sustainable (increases in productive investment) and in ways that were unsustainable.
(rising inventory in China, increases in speculative investment in the US, China, and Europe, and increases in credit-financed consumption in the US and southern Europe). At some point excessive debt eliminated all the unsustainable ways, and we were forced into accepting the remaining sustainable way, which is an increase in unemployment.

I should add here that this model does not tell us where the increase in unemployment must occur, but history tells us much of what we need to know. In the early stages of the adjustment unemployment usually occurs in the countries that saw the fastest increase in debt, typically the countries with excessively low savings. But as these countries begin to intervene directly or indirectly in trade, the unemployment shifts to the countries with structurally high savings rates – Germany and China, in the current case.

This shouldn’t surprise us. If the global problem is insufficient demand, countries that have excess demand (deficit countries) can increase their share of demand simply by intervening in trade. Countries with excess supply (the surplus countries) have to hope that they are allowed to continue to force their excess savings onto the rest of the world or else supply and demand cannot balance domestically.

It is easiest to see this process in Europe. Following the convention I have used before, I will simplify things by assuming that Europe consists of only two countries, Germany and Spain. Here, as I see it, is the sequence:

1. Beginning around the turn of the century, and in order to increase German employment, German labor unions, corporations, and the government agreed voluntarily to restrain wage increases in order to make Germany more competitive in the international markets. This had a double effect. First, the household share of income declined. Second, as unit labor costs dropped, German rentiers and business owners saw their share of total income rise. The net effect was that the share of GDP retained by ordinary German households declined partly because non-households (businesses and the state) retained a growing share of total income and partly because within the household sector the rich retained a growing share.

2. Both effects caused consumption to decline as a share of GDP, or, to put it another way, caused the German savings rate to rise (and notice this had nothing to do with rising thrift among German households). Higher German savings had to be counterbalanced, either within Germany or within Spain.

3. They were not balanced within Germany. German investment rates did not rise to match the increase in savings (in fact I think investment actually declined), nor did consumption among ordinary German households surge. If Germany had been a closed economy, a rise in unemployment would have been, in that case, inevitable. Instead, Germany exported the excess savings to Spain, which under the conditions of the euro Spain was not able easily to reject (tariffs or currency depreciation). Because capital exports are just the obverse of a current account surplus, this meant that after spending much of the 1990s in deficit, Germany’s excess production, caused not by a surge in production but rather a decline in consumption, was resolved by the country’s running a current account surplus.

4. This resolved Germany’s problem, but only by forcing the savings imbalance onto Spain. Because savings exceeded investment in Germany, investment had to exceed savings in Spain. This meant either
that productive and unproductive investment in Spain had to increase, or that savings had to decline. Martin Wolf makes this point when he argues that the expansion in Germany’s tradable goods sector forced an equivalent contraction in Spain’s tradable goods sector, so that in order to prevent unemployment (temporarily, as it turned out) Spain had to embrace cheap capital which unleashed both a speculative investment boom and a consumption boom.

5. And both happened. There was some increase in Spain’s productive investment, but the lowering of Germany’s unit labor costs relative to Spain made the Spanish tradable goods sector uncompetitive, reducing desired investment in the tradable goods sector. It was difficult, in other words, for productive investment in Spain to rise enough to account for the surge in German savings.

6. As asset prices in Spain soared, thanks to the surge in capital inflows, this made Spaniards feel wealthier. There were two obvious consequences of soaring asset prices. Excessively cheap and easily available money poured into non-productive investments – apartment buildings and bloated infrastructure, for the most part. It also funded a consumption binge, and the Spanish savings rate dropped sharply.

7. But neither of these is sustainable. The debt backing unproductive investment and soaring consumption could only continue if there was unlimited debt capacity. Clearly there was a limit to the debt, and the global crisis in 2007-08 put an end to the party.

8. This exhausted all the ways an increase in German savings could balance save one – a rise in unemployment. Not surprisingly, unemployment soared almost immediately, but of course it did so in Spain. If Spain leaves the euro, Spanish unemployment will decline sharply, but total unemployment will not, which means that German unemployment will rise.

**The Fable of the Bees**

Where does this leave us? Until we see a significant downward redistribution of income in Germany we don’t have many options. If Spain were to leave the euro, this would solve its unemployment problem, but only by forcing unemployment back onto Germany.

Many analysts have argued that Spain could have done the same things over the past fifteen years that Germany did and so would not have suffered, but I hope this analysis shows why this solution – so called “austerity” – is completely wrong. If Spain has also taken steps to force up its savings rate by cutting wages, it would only force up the global savings rates even further and, with it, once debt capacity constraints were reached, unemployment – perhaps not in Spain, but elsewhere. The solution to excess savings, in other words, is not for low-saving countries to cut back on consumption. This will only increase global unemployment.

What is very clear from this analysis is that there are really only three sustainable solutions to the global crisis in demand. Either the world has to embark on a surge in productive investment, or we need to reduce the income share of the state and of the rich, or we must accept that unemployment will stay high for many more years.
The first is possible, but with so much excess manufacturing capacity and excess infrastructure in many parts of the world, and with significant debt constraints, we need to be very careful about how we do this. Certainly countries like the United States, India and Brazil lack infrastructure, but they do so largely because of political constraints, and it is unreasonable to assume that any of these countries will soon embark on an infrastructure-building boom.

Even if they do, the amount of excess savings is likely to be huge, and without a significant redistribution of income to the middle classes and the poor, it is hard to see how we can avoid high global unemployment for many more years. Because trade war is the form in which countries assign global unemployment, I would expect trade relations to continue to be very difficult over the next few years, as countries with high unemployment and low savings intervene in trade, thus forcing the savings back into countries with excess savings.

So what are the policy implications? Clearly Europe, the US, China, Japan, and the rest of the world must take steps to reduce income inequality. Just as clearly countries like China and Germany must take steps to force up the household income share of GDP (in fact polices aimed at doing this are at the heart of the Third Plenum reform proposals in China). Because it will be almost impossible to do these quickly, as a stopgap countries with productive investment opportunities must seize the initiative in a global New Deal to keep demand high as the structural distortions that force up the global savings rate are worked out.

But redistributing income downwards is easier said than done in a globalized world, especially one in which countries are competing to drive down wages. The first major economy to attempt to redistribute income will certainly see a surge in consumption, but this surge in consumption will not necessarily result in a commensurate surge in employment and growth. Much of this increased consumption will simply bleed abroad, and with it the increase in employment.

Less global trade, in other words, will create both the domestic traction and the domestic incentives to redistribute income. In a globalized world, it is much safer to “beggar down” the global economy than to raise domestic demand, and so I expect that there will continue to be downward pressure on international trade.

Until we understand this do not expect the global crisis to end anytime soon, except perhaps temporarily with a new surge in credit-fueled consumption in the US (which will cause the trade deficit to worsen) and more wasted investment in China (which, because it is financed with cheap debt, which comes at the expense of the household sector, may simply increase investment at the expense of consumption). These will only make the underlying imbalances worse. To do better we must revive the old underconsumption debate and learn again how policy distortions can force up the savings rate to dangerous levels, and we may have temporarily to reverse the course of globalization.

I will again quote Mariner Eccles, from his 1933 testimony (http://fraser.stlouisfed.org/docs/meltzer/eccetes33.pdf) to Congress, in which he was himself quoting with approval an unidentified economist, probably William Trufant Foster. In his testimony he said:
It is utterly impossible, as this country has demonstrated again and again, for the rich to save as much as
they have been trying to save, and save anything that is worth saving. They can save idle factories and
useless railroad coaches; they can save empty office buildings and closed banks; they can save paper
evidences of foreign loans; but as a class they cannot save anything that is worth saving, above and beyond
the amount that is made profitable by the increase of consumer buying.

It is for the interests of the well-to-do – to protect them from the results of their own folly – that we should
take from them a sufficient amount of their surplus to enable consumers to consume and business to
operate at a profit. This is not “soaking the rich”; it is saving the rich. Incidentally, it is the only way to assure
them the serenity and security which they do not have at the present moment.

Epilogue

After I sent out the first version of this essay, as I expected, I got some very heated responses, nearly all of
which completely ignored the argument and focused on issues that were not relevant. If you disagree with
my argument, there are only three ways you can do so. You can prove that my assumptions are wrong. You
can prove that my logic is faulty. Finally, you can claim that my argument is irrelevant. You would argue, in
that case, that the most important benefits or costs of income inequality do not lie in the realm of economics
and have to do with social, political, or religious values or with the structure of incentives in our society.

The latter are all perfectly valid points, but they are separate from my argument. To make it easier for
anyone to disagree with me in a way that is relevant or consistent, I will summarize my argument as simply,
as possible, listing very specifically the propositions from which I begin and the logical sequence of the
argument. The only way anyone can possibly show that I am wrong is by attacking my propositions or by
finding an illogical step in my reasoning. Nothing else is valid.

Before starting let me explain some of the responses I have received that were usually irrelevant. People on
the “right” focus on either of the following conclusions:

a)    an increase in the state share of GDP leads to unemployment, in which case they call the argument
right,

b)    an increase in income inequality leads to a rise in unemployment, in which case they call the argument
wrong,

c)    increase in income inequality leads to a rise in productive investment, in which case they call the
argument right (this whole essay, remember, is exactly the same “supply-side” argument provided by Arthur
Laffer).

People on the “left” focus either on the following:

d)    an increase in the state share of GDP leads to unemployment, in which case they call the argument
wrong,

e) an increase in income inequality leads to a rise in unemployment, in which case they call the argument right,

f) an increase in income inequality leads to a rise in productive investment, in which case they call the argument wrong.

The problem is that you cannot agree with just the part you like. Either the entire argument is true or it is false. In fact all of these conditions can be true but are likely to be more or less important under different conditions. One of the great follies of contemporary debate, it seems to me, is that certain policies are considered to be intrinsically and always wealth-enhancing, or intrinsically and always wealth-destroying, depending on your political beliefs, whereas I would argue that these policies, and in fact many others (free trade, unionization, free banking, currency regimes, state intervention, deficit financing, etc) can be wealth-enhancing under certain conditions and wealth-destroying under others. Rather than close the door to debate we should try to figure out the conditions under which they are one or the other, and guide policy according to the relevant conditions.

I start with three propositions, from which everything else follows:

1. The rich in any economy save a greater share of their income than do the poor. This is an assumption that can be proven or disproven empirically. The fact that some countries are rich and others poor may complicate things, but this only means that income inequality inside a country matters, whereas income inequality between countries might or might not matter.

2. In every closed economy savings is equal to investment. This is true by definition because the demand side of an economy consists of consumption and investment, while the supply side (how we allocate total production of goods and services) consists of consumption and savings. Because demand and supply always balance, savings is always equal to investment.

3. No one has infinite debt capacity. I don’t know if this is an assumption or if it is true by definition, however no one has ever disputed it.

Here is the argument, which can only be logically true or logically false:

1. From Proposition 1, if income inequality rises, the savings rate must rise.

2. From Proposition 2, if savings in one part of the economy rises, we must see one or both of the following:

   a) investment must rise, or

   b) savings in another part of the economy must decline.
3. If investment rises, one or both of the following must be true:

a) productive investment rises

b) non-productive investment rises

4. If savings in another part of the economy declines, one or both of the following must be true:

a) the “non-rich” increase their consumption

b) unemployment rises.

You might question whether there are indeed only two ways for savings in another part of the economy to decline, but these are the only two ways I can think of. If there is another way, it would interesting to see how it would affect the argument.

This leaves us with the following. If income inequality rises, we must see one or more of four possible outcomes, which I list as 3a, 3b, 4a, and 4b. Unless we discover any other possible outcome, these are the only ways to balance an increase in income inequality.

Let us focus on 3a and 3b:

1. If productive investment rises, we all get wealthier, both rich and poor (this is what the supply-siders mean by “trickle down”). The process is clearly sustainable.

2. If non-productive investment rises, wealth declines. Once wealth declines to some limit (it could be zero but it could also be, and is likely to be, much higher than zero) the process can be maintained only by rising debt, but from Proposition 3 there is a limit to rising debt, so this process is not sustainable.

Now let us focus on 4a and 4b:

1. If some of the non-rich increase their consumption, they eventually draw their savings down to their minimum level (which might be zero, but doesn’t have to be), at which point they have to borrow to consume. But again, from Proposition 3 there is a limit to rising debt, so this process is not sustainable.

2. If unemployment rises, total savings decline, although because it might also cause investment to decline, unemployment might have to rise a great deal, which is what happened in countries like Spain once debt-fueled consumption and debt-fueled non-productive investment came to an end in 2008. This is, unfortunately, sustainable.
The conclusion, which I believe follows inevitably from the three initial propositions, is that a rise in income inequality can lead temporarily to an increase in non-productive investment or to an increase in debt-fueled consumption, but in both cases they are unsustainable. A rise in income inequality can also lead to a rise in productive investment or a rise in unemployment, neither of which is unsustainable (unemployment in the long run might be unsustainable, but of course this does not invalidate the argument).

This means that rising income inequality must eventually lead to more productive investment or to more unemployment. There is no other conclusion. Can this argument be attacked? Of course it can. If you disagree with any one of the three initial propositions, then even if the argument is completely logical, the conclusion may be wrong. Alternatively, if you disagree with any of the logical steps, then even if the three initial propositions are correct, the conclusion can be wrong. These, of course, are the only ways in which the conclusion can be wrong.

Inevitably some one will discover that Keynes and Krugman said many of these things, in which case the essay is the work of the devil and innocent young people should not be allowed to read it, or that it agrees with things that Laffer and Friedman have said, in which case ditto. In fact an awful lot of economists in the past 200 years and on every part of the political spectrum have agreed with some or all of this model, mainly because it is just basic economics. There should be no guilt by association here, please.

This piece is cross-posted from Michael Pettis’ China Financial Markets (http://blog.mpettis.com/2014/03/economic-consequences-of-income-inequality/) with permission.

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Comment (1)

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Love your analysis, very straightforward and to the point. You say that the rich spend less than the rest, i.e. save more proportionally, and then you say this can be empirically ascertained. Do you know if this is uncontroversial? This is a central premise so the argument should probably not be presented without a good sense of the truth of this premise (argument is not valid without truth of premises).
I recall that the premise is also central to various key econ models and that it was refuted a few decades ago. I am not challenging your assertion but rather asking whether you have any further grounds to make the argument than the bare assertion that you made. Your case is the best that I have seen on the inequality debate, so it would be of great interest to get more confirmation or refutation of that premise.
Best regards,
Joe