

# Direct economic democracy

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This is just a point of view laid out for you lot to tell me how it is wrong.

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## Introduction

Direct democracy means rule of a country directly by the population (in contrast to representative democracy where elected representatives rule the country).

“Democracy” typically is used to refer to legislative power. However much of the way that people and resources are controlled is by financial means. Proposals to make such financial power more democratic have been termed “[economic democracy](#)”. Generally such proposals entail transferring financial control to elected representatives.

Direct economic democracy is the idea that financial power needs to be wielded directly by all of the individuals in an economy.

A [laissez-faire](#) economy may provide direct economic democracy if all the participants have a share of the wealth. In practice however, a laissez-faire approach leads to [polarization of financial power](#). Once some people have accumulated sufficient savings, these are used to acquire assets that provide a return that enables more to be gathered. This compounding claim over wealth redistributes financial power towards an [oligarchic](#) concentration.

Sustained peace and prosperity depends on the economy reflecting the priorities everyone has for using their own time and the natural resources. If power is concentrated with a few people then everyone else becomes economically excluded. That results in wastage of that most precious resource- the ingenuity of the seven billion people we have on Earth. **Money is an administrative tool that we all use to govern our real lives.** It is our responsibility to ensure that the nature of our monetary system as best as possible facilitates the real economy we wish for.

When considering the distribution of financial control, it is important to distinguish between tangible sources of wealth (such as land, infrastructure, technology, organization and expertise) and **claims over such wealth**. Clearly increasing tangible sources of wealth will make the economy as a whole wealthier. Much **confusion** arises when that gets **conflated with simply increasing claims on the same tangible wealth**. The term **“wealth creation”** is often confusingly used to refer to **increasing claims on the same tangible wealth**.

I am putting forward the idea here that sustained direct economic democracy depends on moderating the extent to which claims over wealth can be used to gather more such claims. Direct economic democracy depends on everyone having sufficient claim over the economy’s wealth. In order for such a widespread wealth distribution to be maintained, generalized **“return on capital”** would have to be taxed in such a way that, rather than money gathering money, adept use of wealth is required simply to preserve it over time. The tax burden would need to shift off taxing what people did to instead taxing what they owned. That would mean replacing all current taxes with a uniform asset tax that applied equally to all gross asset values of land, cash, stocks, bonds, collectables, commodities etc. If something could potentially be sold, then it would need to be taxed at a proportion of its market value each year in order to be legally owned.

Some other changes could also contribute towards direct economic democracy. I would suggest these reforms:

- Replace all current taxes with a uniform tax on gross assets.
- Replace means tested benefits with a uniform **citizens’ dividend** paid to every citizen irrespective of any other earnings.
- Have widespread public comprehensibility as being a key criterion for monetary and financial policy and regulation.
- Transfer financial power away from banks to all individual citizens.

Here I set out the overall reasoning behind this idea, then delve under the bonnet of our current economic system and finally provide more detail about suggested changes.

## **Why deployment of capital by the wealthy fails to provide an optimal economy**

Many fortunes are based on individuals putting exceptional talent and drive to constructive use providing exactly what everyone wants to pay for. Under a laissez-faire system, wealth concentrates with those most adept at gathering it and hanging on to it. It might be imagined that the capitalists who prevailed would be those that ensured that maximum use was made of the resources they controlled and so consequently an **“optimal”** economy was ensured. Understanding why this isn’t

the case requires an examination of [accounting identities](#) and above all the “perishability” of what money can buy. Because our [economy is monetary](#) and because money follows the laws of accounting, [accounting identities provide an invaluable insight into how our economy works](#).

Ultimately, return on capital depends on goods and services being sold at a profit. [Michal Kalecki](#) described the accounting identities behind how, across the economy as a whole, goods and services can be sold at a profit. Viewed across the economy as a whole, the only sources of profits are spending of pre-existing profits [or increasing indebtedness/monetary expansion](#) (see diagram on page 29). If goods and services are offered for sale at a profit and profits are saved rather than spent, then there won't be enough money to buy the goods and services on offer unless monetary/credit expansion makes up the shortfall. [Wealth concentration makes it less likely that profits will be spent rather than saved](#). Returns accruing to large wealth holdings are very likely to be retained as savings compounding that wealth. If profits simply flow towards inflating/duplicating claims over existing tangible sources of wealth, then future profits are put in jeopardy. Spending profits on tangible investment (such as renewing production equipment, training staff) can enable existing profits to be “recycled” into subsequent profits of those providing that equipment etc. However if profits are spent on bidding up the prices of pre-existing assets (such as land or companies) then that flow of money has not re-entered the “real” (production and consumption) economy and is [simply being passed around without funding the creation of anything](#).

This leakage from the real economy can be offset by bankruptcy. If goods and services have been provided for a company that then goes bankrupt before paying for them, then “the economy” has gained those goods and services over and above what the economy's flow of funds can pay for. Such a dynamic has been lauded as a cycle of “creative destruction” that supposedly ensures that less effective companies get replaced. The arbitrary wastefulness of this process is very clear however. Once a company goes bankrupt, the goods and services that it received tend to go to waste. Bankruptcy impacts suppliers who may run exemplary businesses. [It tends to occur in waves across the economy as a whole with a domino effect between interacting companies](#). Above all it results in underutilization of human potential. This is most dramatically illustrated by the astonishing increases in productivity that occur when credit/monetary expansion is used to fund war time re-armament.

In the [1930s](#), [waves of bankruptcy](#) resulted in extreme caution amongst capitalists. Only the most cautious had managed to hang onto wealth and they preserved that wealth by holding it as savings rather than by providing sources of tangible wealth. Consequently there was mass unemployment of people who wanted to work. Lack of jobs meant that people were not receiving wages. Without wages, potential customers couldn't provide custom and without custom, firms couldn't afford to pay wages.

[WWII transformed this employment situation](#). [Government emergency monetary/credit expansion was used to fund a massive re-armament program](#) across the entire developed world. Suddenly jobs were available for everyone and the economic depression evaporated. Obviously the 1930s peacetime economic depression did not reflect any real constraint on the economic potential. It was purely an administrative failing that caused the 1930s misery. The resources were in place to have potentially provided a life of plenty for everyone throughout the 1930s. It was simply that aberrant financial arrangements caused them to not be deployed and so to go to waste. The crucial point to understand is the underlying cause of that aberration.

Money can either be used to pay for current goods and services or it can be saved so as to defer consumption until some later date. An individual's savings need not necessarily be held as money itself. Saved money may be exchanged for some other store of value such as land, collectables, shares in a company, government debt etc. In that case however the savings are just as evident, it is simply that the money has been passed around between for instance the primary saver and the person who sold them some pre-existing shares in a company.

A much quoted accounting identity is that [savings equal investment](#). Great confusion arises because of the [different meanings for "investment" and "savings"](#). As used in the [Savings Identity](#), "investment" means paying for tangible production that is not consumed. Investment is widely lauded and so the Savings Identity gets quoted as evidence that we need to save more so as to generate more investment. This reasoning overlooks the crucial fact that unsold inventory that perishes and entirely goes to waste nevertheless falls into the category of "investment" as used in the Savings Identity. If a company makes a tangible investment, by for instance building more production equipment rather than deploying all of their resources on current production, then the consequent drop in current production constitutes the consequent savings of the Savings Identity. However if consumers at large decide to save then the result will be "investment" in the form of unsold inventory that perishes and entirely goes to waste (unless the monetary shortfall is made up by monetary/credit expansion). Imagine a car maker, -if many of its customers decide not to buy cars and instead to use that money to (for instance) bid up the price of the shares of that company, then the "investment" resulting will be unsold cars. The consequence of that will be that the car maker will cut back production and avoid buying new equipment or development costs. This phenomenon has been called "[The Paradox of Thrift](#)".

In terms of accounting identities everything adds up just as neatly whether people build fancy robot controlled factories that enable them to subsequently live a life of freedom and plenty or alternatively fail to sell inventory, get laid off and live in poverty. What is crucial is that we create rational, productive, tangible investments rather than having waste. Having people build more efficient infrastructure or develop new technologies is no more of a feckless "free lunch" than is having people languishing in poverty. It is simply an alternative deployment of the same resources – primarily peoples' time.

It has been argued however that bidding up stock prices can drive tangible investment. [This passage](#) from [Keynes](#) is often quoted to make this point:

"But the daily revaluations of the Stock Exchange, though they are primarily made to facilitate transfers of old investments between one individual and another, inevitably exert a decisive influence on the rate of current investment. For there is no sense in building up a new enterprise at a cost greater than that at which a similar existing enterprise can be purchased, whilst there is an inducement to spend on a new project what may seem an extravagant sum, if it can be floated off on the Stock Exchange at an immediate profit."

The problem is that investments that provide utility for the economy as a whole are those that are enabling something that wasn't as efficiently provided by existing companies. Even if it were practical to do so (which typically is not the case), simply duplicating existing companies to float them on an overvalued stock exchange would provide abject mal-investment in terms of what it contributed to the utility of the economy. In practice the only creation of companies that is driven by

elevated stock market valuations are the most flagrantly cynical examples of phoney companies such as were floated in the [dot-com bubble](#) of the late 1990s. Another equally squanderous example of tangible investment driven by elevated asset prices were the “[ghost estates](#)” of excess housing stock built during the 2006 housing bubble in Ireland and [Spain](#). In some cases those houses have now been demolished without ever being occupied. Unlike these examples, useful tangible investment is driven by envisioned consumer demand. It is not driven by the hope that “[a greater fool](#)” will buy a newly created asset before everyone realises that it has no practical use.

From an individual’s perspective it makes perfect sense to save. People have differing needs and earning capacities at different times of life and need to even those out. Across the economy as a whole, no problem arises from individuals saving so long as for everyone saving there is someone else drawing down savings (for instance retirees drawing down retirement savings). If economy-wide net saving is occurring, that also isn’t a problem if it is simply a reflection of rational increases in tangible investment in productive capacity. Problems arise from non-productive net saving across the economy.

When saving is used to defer consumption the primary resource that is being “transported through time” is a claim over other peoples’ labour. We decide not to pay for a restaurant meal today so that we instead may pay for nursing care in fifty years’ time. This system works very well if various people are saving and drawing down savings at any given time so that overall there is no net saving. Obviously however net saving across the economy cannot achieve the impossible. If all restaurant staff are left idle today then that cannot miraculously conjure up nursing capacity in fifty years’ time. One tragic limitation of money is that it renders everything down into an imperishable abstraction. What is done with money gets mirrored by what consequently gets forced on the real world even if that entails unintended waste. Because every unused man-hour is permanently lost, a conflict arises between the imperishable monetary savings and the lack of any reflection of those savings remaining in the real economy in the form of capacity to honour that claim on future production.

This view is nothing new. [This 1933 quote](#) from [Marriner Eccles](#) seems as relevant today as when it was made.

“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.”

## Doesn't government deficit spending cure any such problem?

After WWII it was widely recognised that government deficit spending on the war effort had cured the great depression of the 1930s. This was taken as vindication of Keynes's advice that government deficit spending on public works could be used to break the downward spiral of unemployment, reduced consumer spending and consequent further unemployment. It was considered that the same economic miracle that occurred at the outbreak of WWII could be extended to ensure [prosperity in peacetime](#). One problem however is that a war effort is a very obvious and basic task. By contrast, providing peacetime prosperity is a much more subtle and multifaceted challenge. If a war effort gets subverted by special interests, then the war will be lost and so there is no weakness allowed in that direction. By contrast merely [spending government money so as to have government spending](#) provides a feeding frenzy for special interests and dispiriting, pointless, projects and bureaucracy. Furthermore, if the government steps in to make up every shortfall arising from net saving across the economy, then the private sector evolves into simply being a vehicle for causing such net saving and harvesting the consequent government deficits. This leads to the free market retreating from providing "real economy" goods and services and instead becoming limited to a financial sector that purely extracts and saves the flow of funds. The potential end result could be a state commissioned real economy together with [an ever larger parasitic financial sector](#) that then [morphs with and runs the state for its own benefit](#).

Government deficit spending enables a vast ballooning of the extractive [FIRE \(finance, insurance and real estate\) sector](#). In [the 1960s, the financial sector accounted for 3% of US GDP](#). By 2011 it had [grown to 8.4%](#). [The profits of the finance sector grew from being 16% of the total US corporate profits to being 40%](#). The "real economy" that provides non-financial goods and services was amply served by the financial sector of the 1960s. In principle, computer technology should have created tremendous efficiency gains in provision of financial services. With current technology, a very small, low cost, financial system could serve all of the financial needs of the real economy. However [the financial sector acts in its own interest](#). As with any other industry, it expands as far as it can and extracts as much as it can. Things are out of kilter because the monetary set up currently provides no limitation on the extent of extraction by the financial sector. As [Jeremy Grantham](#) (himself a renowned financier) [put it](#), "the financial system is overfeeding on and slowing down the real economy. It is like running with a large, heavy, and growing bloodsucker on your back. It slows you down."

Government deficit spending is channelled into sustaining asset price inflation mediated by bank lending. [80% of bank lending in the USA and UK is for mortgages used to buy pre-existing housing stock](#). Housing is sold for as much as buyers will pay and buyers will pay as much as banks will lend to them. [This dynamic drives the asset price inflation that is the life force of the FIRE sector](#). The phenomenal increase in the value of the housing stock over the past few decades is the [manifestation of tremendous net saving across the economy in the form of servicing ever greater mortgage repayments](#). [Government deficit spending has replenished this flow to net saving and so averted the recessionary effect that it otherwise would have had](#). However that has allowed such financial extraction to expand and extend -necessitating yet more deficit spending.

The [current system does not adequately collect and return the flow of funds that leaks to net saving via asset price inflation](#). Transferring the tax burden to being an asset tax would be a way to complete the circle between government spending and asset price inflation. Such a perpetual cycling

flow of funds is essential in order to have a sustainable monetary system that facilitates the real economy rather than distorting it further and further away from providing real goods and services for everyone with the minimum imposition on everyone.

### **Labour unions don't solve the problem.**

Labour unions have provided a transformative improvement for economies since the 19<sup>th</sup> century. Labour unions transformed the Scandinavian economies from oligarchies with a bare-bones domestic market to being prosperous and dynamic. Unions demanded adequate wages and safe working conditions. Workers with wages provided a domestic consumer market. In the UK, union power achieved its zenith in the 1970s. The consequence was an economic collapse and widespread anti-union popular sentiment. Union power provided an effective lever for forcing change but seemed incapable of constructive governance of the economy. Labour unions could make demands by threatening to strike but they could not induce the private sector to invest –quite the opposite. Perhaps if the unions had actually owned the companies that their members worked in, then things could have been different. As it stands however, unions can only ensure that firms don't over exploit workers. Unions are unable to cause expansion of investment and more effective use of the potential workforce. If either the owners or the workforce withdraw then everything is thwarted. If unions make a push, then typically owners are scared off. A culture of conflict between owners and the workforce leads to pointless waste and restrictive practices. An effective system needs everyone to work together for mutual benefit.

Labour unions sometimes advocate nationalised state ownership in the belief that the state will always ensure appropriate engagement and investment and never simply abandon a venture in response to unions' demands. Unfortunately the same conflict of interests exists between state employees and the state as between private sector employees and private owners.

State run command economies such as the former Soviet Union or Cuba failed to provide a workers' paradise. They even failed to provide a bureaucrat's (or secret policeman's) paradise. Under such regimes, human will power became directed more at stopping things being done than getting things done. With less done, everyone had to do without. It is hardly surprising that command economies act stupidly. By concentrating power, they replace the parallel processing power of millions of people with the organizational capabilities of a select few. It is much the same affliction as financial oligarchy.

### **How direct economic democracy could optimise the economy**

An optimal economy is one that caters for everyone's wants and makes use of the work that each individual is inclined to provide. Individuals themselves are in the best position to know what those are for themselves. If given the freedom, people can spot an opportunity where they could produce what others would pay for.

Government funded schemes tend to gravitate towards grandiose "best of the best" projects such as the Concorde air liner. If power is in a few hands, it is much simpler to conduct a handful of vast monumental projects rather than the myriad, humdrum, small projects that are actually required for an efficient, robust economy. Individuals tend to ensure that they meet their basic requirements

before contributing to grandiose projects. Individuals certainly do not choose to wait in poverty if they have the financial resources to be prosperous. The crucial point to grasp is that the only thing poor people lack is the ability to pay each other to provide the labour required to create everything they need. The only cost of recycled materials and renewable energy is the labour cost.

An asset tax causes the financial characteristics of savings to better reflect the effects they impart on the real economy. With an asset tax, monetary savings are not imperishable. In order to be maintained over time, they need to be deployed in such a way as earns sufficient yield to pay the asset tax. This avoids the misalignment that otherwise results from the fact that every unused man-hour is permanently lost.

As important as financial freedom is for allowing everyone to meet their basic requirements, it also allows people to pursue other goals. Much time is currently spent doing pointless work “for the money”. Economic democracy would enable people to choose how to spend their time. Without sales and income taxes and with a citizens’ dividend, people would be more able to spend time on child and elder care or sport or art or science with complete academic freedom. Historically, some of the most significant scientific breakthroughs have been made by unfunded scientists. [Darwin](#) and [Einstein](#) made their scientific breakthroughs following their own curiosity without sponsors. Research institutes and universities could be places where people chose to come together to share knowledge and expertise rather than being places where fields of enquiry were directed according to top down priorities.

Similarly, novel commercial ventures would benefit from direct economic democracy. People could endeavour to get a commercial venture up and running whilst using their citizens’ dividend to tide them over. It is much harder to grasp and trust a ground-breaking idea if it is someone else’s and they are asking you for money. As a consequence, transformative industries have been started despite not because of the outlook of financiers. The [pioneers of the industrial revolution](#) relied on informal financing from family and friends not from banks or capital markets. Similarly [the pioneers of the computer technology revolution in Silicon Valley were largely self-financed](#).

Nowadays, [venture capital financing](#) does fund the creation of new innovative companies especially in California. Venture capital financing is currently a [tiny proportion of financial activity in the UK](#). Currently when venture capitalists sink money into funding the start-up of an innovative company, they are forgoing the asset price inflation that they could have been riding had they simply used those funds to bid for some pre-existing assets. By contrast under an asset tax system, during the start-up of a company, asset tax liability would not be faced until and if the company became a valuable asset. That could take several years. Without capital gains tax, creation of a new extremely valuable company would be much less heavily taxed than is currently the case.

Both the citizens’ dividend and the asset tax would facilitate employee ownership of companies. Currently some extremely efficient companies have such an ownership structure. The [John Lewis Partnership](#) in the UK and [Mondragon](#) in Spain are examples. Currently however few potential employees are in a financial position to create such an employee owned company or to bring current companies into employee ownership (the John Lewis Partnership was founded by the idealistic owner donating his company to its workers). A company typically initially has to become established before making a profit and so financiers pay employee wages and pay the other costs entailed in starting a company. Consequently the financiers own the company. Under the current system, asset

prices are extremely elevated. Consequently, once a company has started, it gains a very high [present value](#). Under the current system, employees of start-up companies typically want to cash in any ownership stake they have at the earliest opportunity. They want money they can spend whilst the current system causes assets to have such high valuations that yield is minimal. Under an asset tax system, even if a company offered considerable profits into the future, the asset price would be modest (by today's standards) and so the yield would be proportionally higher. Continued ownership would then make more sense for employees.

Employee ownership contributes to macroeconomic stability because all profits belong to the employees and they are more likely to spend those profits than is the case with extremely wealthy owners. [Spending of profits across the economy provides the flow of funds available to be captured as subsequent profits. That ensures profitable opportunities for a private sector real economy.](#)

Companies with a huge capital value and relatively few employees (such as oil companies or railways) would nevertheless generally still be beyond the reach of outright employee ownership. An asset tax and citizens' dividend would recycle some of the benefits of such capital intensive enterprises across the wider economy. Affordable asset prices and a simpler, less [leveraged](#) financial system would allow more widespread beneficial ownership of shares in such companies.

[Mechanization has been steadily replacing human labour across the economy.](#) Computer motherboards are now entirely built by robots. The [Nissan car plant in Sunderland](#) now produces as many cars with 5000 workers as the [Longbridge British Leyland plant of the 1970s did with 250000 workers](#). Agricultural work now occupies only 2% of the population in developed countries. These are fabulous advances but they make ensuring economic democracy an ever more pressing concern. As Jeremy Grantham [put it](#):

“the final position is that automation, and thereby capital, produces everything while all of the mere mortals sit on the beach. And starve? The worthless unemployed who are obviously not carrying their weight? Ah, there's the rub! Up the beach, in a protected, cordoned-off section is the capital owners' club. There, a handful of equally “unemployed” owners sit, enjoying tea and the ocean.”

If output is divided between “capital” (those who own the machines etc) and “labour” (those who do the work) and labour is rendered entirely unnecessary, then it is essential that “capital” comprises everyone. Direct economic democracy means ensuring that it does.

A key benefit from mechanization is that entrepreneurs will no longer require a large workforce of manual laborers working under them. That could ease a previous impediment to economic democracy. [In 1943, Michal Kalecki expressed the concern that business interests actually depended on periodic economic slumps so as to ensure a compliant workforce that was sufficiently scared of losing their jobs.](#) At that time industrialists were utterly dependent on having a large pool of manual workers to draw upon. Kalecki's concern was that capitalist democracies would be unable to adjust to a scenario where labour was in such high demand that manual workers were unperturbed by the threat of the sack. To some extent Michal Kalecki foresaw the [industrial unrest](#) and [stagflation](#) of the 1970s with the [subsequent backlash against government sponsored full employment](#).

This has some parallels with the early American colonies where the abundance of land meant that every colonist wanted to own a farm rather than work as an employee. First [indentured servitude](#) and then [slavery](#) were deployed to address the consequent labour shortage.

In a fully mechanized world, there would be no fundamental impediment to everyone becoming part of the owning class. Already today large swathes of the global population are excluded to the sidelines of global economic activity. They are not required as manual workers and not even required as “potential” manual workers serving to make current manual workers scared of the sack and so compliant. The only way that such economic exclusion could be said to favour the wealthy might be via [reduced demand](#) for limited natural resources such as fresh water and minerals. Even that is a [very shortsighted view since global population growth springs from those excluded from the global economy](#).

### **Isn't a financialized economy the goose that lays our golden eggs?**

When Margaret Thatcher made her economic policy changes in the 1980s [many economists predicted that the UK would be plunged into a vortex of impoverishment](#). In fact although the [deindustrialization](#) they predicted took place it coincided with increased prosperity by many measures. The resulting economic transformation was viewed as such a success that a broad political consensus was formed supporting those “neoliberal” economic policies. The Labour Party became [New Labour](#) and [embraced financial deregulation and a transfer of taxation away from property and onto consumption](#). Wealth boomed for the wealthiest and everyone else was swept into greater prosperity along with them. [Similar measures were taken in the USA and had similar results](#).

When reading [recollections of those involved in the instigation of the Thatcher economic policies](#) it is clear that the key aim and result was to shift from an economy where wage inflation out-paced asset price inflation to the opposite. The resulting benefit to those who already were wealthy before the transition is obvious. What needs to be understood however is how the country overall became richer on a wave of asset price inflation. How were we able to afford imported goods so much more easily than before? Seemingly by simply bidding up the price of pre-existing (or even purely paper) assets we were able to pay foreigners to do our manufacturing and provide us with natural resources that much of the rest of the world couldn't afford.

The answer becomes apparent when the financial connections with the rest of the World are drawn into the picture. The UK became the piggy bank of the world. Foreigners were able to join in and further inflate the stock market, bond market and real estate bubble. [Across the developing world, the immensely rich elite of those countries sought secure and lucrative ways to hold their wealth](#). The UK became a repository of choice for this “[capital flight](#)” from the developing world. When the UK bought imported goods, the money paid for them was returned back to the UK to bid up the value of our asset markets. In effect, trade became a flow of real goods (and migrant workers) to the UK in return for account statements. All that the UK needed to produce were electronic or paper documents.

To kick off this wave of financial inflow, [interest rates were raised significantly above the \(high\) rate of inflation](#). This offered a potential bonanza to those buying UK treasury bonds especially if the

consumer price inflation rate could be reduced. Limits on bank lending were relaxed and tax breaks were offered to those taking on debt. The government curbed labour union powers and disengaged from efforts to limit unemployment. [This quashed wage inflation and so the inflationary impetus of credit expansion was channelled into asset price inflation.](#)

The flip side of this flow of funds to the financialized developed economies was painfully manifested across the “developing” world. In fact, it made a mockery of the term “developing”. From the time of independence in 1960, [Nigerian GDP increased 135% during the 1960s and then 283% during the 1970s. By contrast it shrank by 66% in the 1980s. The Nigerian Naira / USD exchange rate went from 0.78 in 1980 to 2.83 in 1985 to 8.94 in 1990 to 102.24 in 2000.](#) With economies drained by capital flight, the developing world was no longer as able to afford global commodities such as oil, coffee, metal ores etc. That caused a slump in commodity prices and consequent further slumps in the economies of commodity exporters and so yet more incentive for capital flight.

[Economic depression in the developing world was further fuelled by USD and GBP denominated loans made by UK and US banks to third world governments.](#) A sovereign government has no need for borrowing in a currency other than its own. [Any public services such as school teaching, road building or construction of sewerage systems etc. could have been provided using local currency issued by the government to pay local people to do the work with taxes payable in the local currency ensuring the value of the local currency.](#) Countries such as Nigeria had trade surpluses. That provided an ample potential immediate source of foreign currency to fund any imports for government use (such as weapons). [The only role for USD and GBP denominated loans was for adding to capital flight.](#) Meanwhile the western banks profited from the interest payments on the government debt. Political power in third world countries rested on being able to win over powerful cronies with the prospect of facilitated capital flight and so the dire arrangement became further entrenched.

[Since 2000 however the developing world has in many cases resumed development. Hundreds of millions of people in the developing world have escaped poverty over the last decade. This has been applauded as evidence that neo-liberal economic policies have extended their benefits to everyone.](#) Perhaps a more accurate view would be that a stage in the process of financialization has now been fully wrung out and so the choke hold over the developing world’s economies is slipping. In order to attract financial in-flows, the ideal monetary arrangement is to have high interest rates above the rate of consumer price inflation and an expectation that both inflation and interest rates will subsequently fall. [The market price of any asset that provides a long term cash flow will tend to rise if interest rates fall.](#) If an asset costing \$10 yields \$1 per year when interest rates are 10% then (very crudely) a drop in interest rates to 5% will tend to reset the asset price to \$20. Bringing interest rates down from >10% to <1% provides a phenomenal impetus to asset markets as has occurred since 1980. [However, once it is done, it is done](#) and so wealth managers will start looking elsewhere.

A whole raft of other such policies also harvested a one off boost for asset prices. Curtailing labour union power, [shifting taxation from property onto consumption](#), encouraging [private pension saving](#) and [facilitating private sector credit expansion](#) all added to the performance of asset holdings. What provides a real bonanza for asset holders is when there is a transition from an unfavourable financial climate to a favourable one. Once that transition has been fully priced in, much of the gain has already occurred -especially when asset values are elevated and so asset don’t provide much of an

income stream. Once everything has been done to make an economy as hospitable as possible for global “hot money”, the market will price in that favour and then global “hot money” will look for a new home where the next price rises are going to occur. This makes attracting capital flows an inherently one off rather than a sustainable way to achieve prosperity. Capital flows may unfold over decades and that may give the impression that they have provided a timeless prosperous equilibrium but ultimately sustainable prosperity depends on the real economy.

It is vital to appreciate that macroeconomic malign effects don't require any malign intent on anyone's part. En-mass, people simply endeavouring to manage their finances as best as possible can inadvertently cause massive waste and destruction whilst all the while being entirely oblivious of it. It is analogous to tragic incidents when people get crushed to death in large crowds. No one person is to blame, the crowd surges and crushes without any person in the crowd acting reprehensibly. That is not to say that there is not a responsibility to take crowd control seriously – quite the opposite. Some of [the politicians](#) and [technocrats](#) at that vanguard of neo-liberalism actually aimed to alleviate poverty. Their reasoning was that if money is pampered then it will spring forth rewards that can be dispensed to good causes. In their view, capital flight supposedly means that [global money is continuously being deployed wherever it can earn the most](#). That is taken to mean that overall global wealth is maximised and so there is more to go round. The key mistake in this is that it conflates claims over real tangible sources of wealth with the underlying real tangible sources of wealth themselves. Whenever that mistake is made, policy makers inevitably fall into the trap of simply facilitating an expansion in the paper claims over wealth whilst losing sight of the underlying reality required to back-up those claims with the real economy. The true responsibility for policy makers is to ensure that the monetary framework is constructed so as to align with the real economy such that what is best for money becomes what is best for the real economy. If left to its own devices, the financial system will wander away from that ideal. A financial system built by the financial system will direct resources towards expanding the financial overhead borne by the real economy.

### **How money, credit, tax and inflation relate in our current system.**

“The people must be helped to think naturally about money. They must be told what it is, and what makes it money, and what are the possible tricks of the present system which put nations and peoples under control of the few” - [Henry Ford, 1922](#)

Although we all use money, how money comes about is a source of considerable confusion and there is widespread misunderstanding of how money, credit, tax and inflation are interrelated. No meaningful consideration of our economy is possible without a clear understanding of the monetary system. Much of the economy is entirely an artefact of the way [our monetary system](#) happens to be arranged.

Historically many forms of money have been used ranging from [cowrie shells](#), to portions of [silver](#) or [gold](#), to [debt contracts](#), to [tax tokens](#). [Debt contracts and tax payment tokens have been a basis of money for thousands of years. Money based on precious metals is easy to comprehend but historically it has seldom formed the basis for most of the money in use.](#)

Nowadays the stock of money has various measures depending on how broad a definition is given. This ambiguity is much like that encountered when assessing the population of a city. Is the population of London that of the square mile, Central London, Greater London, everyone within the M25 etc? In our current monetary system, the narrowest measure of money is the monetary base. However the monetary base only constitutes a small amount of the broader stock of money.

### *Monetary base, taxation and government spending*

The **monetary base constitutes coins, paper cash and bank reserves**. Nowadays bank reserves are an electronic entry on the central bank (eg the Bank of England) computer entered as an account for one of the commercial Banks (eg HSBC, Barclays, RBS etc). When the **government treasury pays for something, the amount paid is added to the payee's bank's bank reserves**. When **tax is paid to the government revenue, the amount paid is deducted from that tax payer's bank's bank reserves**. Government spending in excess of the amount taxed is termed the deficit. The government sells treasury debt to match the deficit. At such primary auctions of treasury debt, the amount paid is deducted from the buyer's bank's bank reserves. **Consequently the overall change that comes about from government deficit spending is an increase in the stock of treasury debt**. The central bank can increase the amount of bank reserves (with a keyboard stroke) either to lend to commercial banks or to buy back treasury debt (or other debt contracts) from commercial banks. In that way the central bank can adjust the scarcity of bank reserves in comparison to treasury debt and so set interest rates. Before computers, sacks full of paper cash were transported between the banks as "vault cash" that constituted the bank reserves of that era.

A somewhat "chicken or egg" style debate is had as to whether government taxes and borrows to fund spending or whether **government spending provides the money used to pay taxes and buy treasury debt**. The same overall monetary system as described has been adopted for numerous currencies despite their various historical backgrounds. The Bank of England was started in 1694 using money owned by wealthy private citizens. **That money was largely in the form of tally sticks. Tally sticks were the large denomination tax token money that had been in use since 1100 when they were first issued by King Henry I**. The Bank of England was nationalized in 1946 and devolved into being a quango in 1998. Regardless of the historical background or any philosophical opinion as to direction of causality in the system, what matters is to understand the mechanics of how it operates.

The **fundamental underpinning of the monetary system comes from the requirement that taxes are paid in the government's currency and that the treasury/central bank system has a monopoly control over the stock of base money for that currency**. The demand for base money is assured by taxation. Taxation ensures that the economy does not move over to using some other form of money and guarantees that the currency will retain value so long as taxation is enforced.

The structure of the system also ensures that the **central bank is always able to bring treasury interest rates down to zero if it decides to**. Interest rates are the flip side of the market value of treasury debt as denominated in the currency. If a treasury debt security sells for 90p and pays £1 in a year's time then the 10p difference is the interest. The higher the price paid at treasury debt auctions, the lower the interest rate. The charter of the Bank of England does not permit it to buy

treasury debt directly from the treasury. This contrasts with for instance the Bank of Japan that does do that. However the distinction is mute. [The Bank of England does announce that it will buy treasury debt at whatever price the market demands](#). That ensures that people buy treasury debt from the treasury with the intention of selling it for a higher price to the Bank of England. Treasury interest rates reflect a scarcity of bank reserves. The central bank can (and currently does) create bank reserves at will in order to relieve any such scarcity. Essentially [the “natural” rate of interest under our system is zero](#) and anything above that is a reflection of scarcity purposefully imposed by the central bank.

Although many currencies are currently structured in this way (eg. those of the UK, USA, Japan, Canada, Singapore, Sweden, Switzerland, Australia etc) [a notable exception is the Euro. The European Central Bank caters for the entire Euro zone but each constituent country has its own treasury](#). When the Italian government spends Euros and those Euros are subsequently used to buy German treasury debt or pay German taxes, then those Euros are no longer in the system available for buying Italian treasury debt or paying Italian taxes. It is crucial to appreciate the distinction between that situation and for instance that of someone with GBP buying US treasury debt. In order to spend GBP on buying US treasury debt, the GBP must first be exchanged for USD. The GBP simply change hands with the person who provided the USD now holding the GBP. The GBP are still in the system and so are still just as available for paying UK taxes or buying UK treasury debt.

The Euro zone has monetary union without fiscal union. [At its conception such an arrangement was described as being broken by design](#). It is not entirely clear why such warnings were overridden. Possibly the hope was that [necessity would cause fiscal union \(and its pre-requisite political union\) to catch up with the monetary union](#). As such the Euro would be a means to usher in a pan-Europe government by the backdoor. Another consideration may have been the hope that the perils of the system would provide an invigorating discipline by causing countries to compete amongst each other in the knowledge that any lapse would cause an inescapable downward spiral of debt and compounding austerity. Whatever the intention, the outcome is that in several Eurozone countries, [50% of young people are unemployed](#) and so that human potential is permanently squandered.

Another consideration for central banks is the currency exchange rate with foreign currencies. Maintaining a stable exchange rate may facilitate long term cross border trade arrangements. Earlier in the 20<sup>th</sup> century [many currencies endeavored to maintain a tight exchange rate peg with other currencies or to gold](#). That was actually a major determinant of monetary policy at that time. No such peg is currently targeted by the Bank of England but exchange rates do figure in considerations about inflation targeting. Imports become more expensive and exports more competitive when the GBP is weak. Creating GBP bank reserves to buy foreign currency (or other assets) is a way to weaken GBP and can be reversed to the extent that the size of those foreign currency holdings allows. Higher interest rates can strengthen the currency.

### *Broad money and the role of banks*

Commercial banks [by definition](#) are lending institutions that are licensed to hold deposits. The stock of bank deposits is very much larger than the monetary base. Understanding this is central to understanding what our money is. If someone takes out a £1000 bank loan to buy a car from their

neighbour and both people are customers with the same bank, then no base money need be involved in the transaction. The bank simply records that one customer owes a £1000 debt to the bank and transiently had a £1000 deposit that was paid to the second customer who now has the £1000 deposit. The [entire process \(and all of the money involved\) is simply a ledger record with no interaction with any bank reserves that the bank may hold](#). The loan expanded the stock of broad money by £1000 and that “money out of thin air” stays in existence until the loan is paid off. Even if the two neighbours banked with different banks, no base money would have been needed if the £1000 payment had been counteracted by other customers such that overall between the two banks, the various payments in either direction netted out. [Bank reserves are only involved to settle the net position](#) between banks every few days. Banks borrow reserves from each other as and when they need them. The [central bank creates extra reserves to lend to commercial banks if they are requested](#).

[US regulations require US banks to hold bank reserves amounting to at least 10% of the transaction deposits they hold](#). However the [international BIS regulations \(Basel II\)](#) have no reserve requirement and [no reserve requirement is stipulated by, for instance, UK, Australian, Swedish or Canadian regulations](#). Banks are required to [hold capital with a value of at least 8% of the loans they have made](#). Such holdings of bank capital are typically holdings of treasury debt and other forms of debt such as bonds issued by other banks. If a bank makes loans that are not repaid then the losses are absorbed by selling the stock of assets that the bank holds as capital. Conversely, profitable bank activity allows the bank to accumulate more capital and that entitles the bank to make more loans. [Credit fuelled asset bubbles](#) snowball because reselling of inflated assets provides the funds to pay off the loans used to purchase the assets together with the interest that provides profits for the bank. Those profits expand the banks’ capacity to grant larger loans to further inflate the asset bubble.

Banks are sometimes claimed to act as intermediaries between those holding deposits and those needing to borrow. A more accurate description would be that banks decouple borrowers from savers. [Banks can lend to credit worthy borrowers using broad money freshly created “with the stroke of a pen” irrespective of the prior stock of money](#). Credit based money (such as the bank deposits that we use today) expands to meet the requirements of the economy as dictated by those who control the supply of credit. This inexhaustible supply of credit based money has ensured that it has [historically been the predominant form of money during peaceful periods](#). During peacetime, gold and silver typically accumulated as hoards (for instance in churches and temples) and so were not available for widespread monetary use. Historically, precious metals were used as money during times of war when the trust required for credit based money was lost and hoards of precious metals were looted and distributed to pay for the military.

The fact that conventional banks both hold deposits and make loans means that the payment system used by the entire economy is held hostage to the solvency of the banks’ loan book and any speculative financial trading that the bank has entered into. Banks exploit this peril by threatening to disrupt the payment system if they are not bailed out from any pratfalls that they have blundered into. The bailout ethos means that banks need to [engage in extremely reckless speculation and make un-repayable loans](#) if they are to compete with fellow banks that [expand when times are good and get bailed out when bubbles burst](#).

In principle there is no reason why deposits need be held by the same institutions that provide credit. Giro banks have in the past administered payment systems and acted simply as a warehouse for customers' deposits of base money, charging an administration fee to cover costs. Even if the depositors simultaneously withdrew all of their deposits, it would create no problem for such a giro bank. Shadow banks are institutions that provide credit but that do not hold deposits. More credit is provided by shadow banks in the USA than is provided by banks. Student loans and credit card debt are predominately provided by credit creation by shadow banks. Shadow banks sell debt securities in return for the base money that they lend. Those debt securities have credit risk depending on the solvency of the loan book of the shadow bank and are priced accordingly. Holding such debt securities provides a way for savers to earn a yield.

### *Inflation, debt and monetary policy*

The chaos that ensues during hyperinflation (when a currency loses its purchasing capacity) gives a sobering reminder of how dependent we are on having an effective monetary system. Such hyperinflations arise from balance of payment deficits and supply shortages. Often they come in the aftermath of wars or revolutions when normal supply chains are disrupted. It is probable that if rationing had not been enforced in the UK during and after WWII, then the UK would have suffered a hyperinflation. If there is no capacity to provide an ample supply of essential goods, then people will start to try and out-bid each other to buy what there is. Panic buying leads to worse shortages and to more frenetic panic. Government attempts to regain order require staff to be paid and for the government to outbid the panic buying of the public to get resources essential for government functions. That feeds into the vortex.

In contrast to the calamity of hyperinflation, moderate inflation is actually viewed as desirable by most central banks. People supposedly find it more satisfying to have wage increases that pace inflation than to have no wage increases and no inflation. Constant moderate inflation is viewed as a way to spread extra contentment as an illusion with no real cost. Inflation acts in an exceedingly uneven way across the economy. As such inflation provides a vehicle for redistributing financial power that is much less blatant and accountable than overt taxation and payments. Central banks aim to maximise the differential between asset price inflation and wage inflation. Such excess asset price inflation provides the basis for the FIRE (finance, insurance and real estate) industry that is the primary constituent served by central banks. To some extent, wage inflation (the underlying basis of so called "core inflation") is a hard to avoid side effect of the desired asset bubble blowing activity.

The period from 1980 to 2008 was called "the great moderation" by the US Federal Reserve and "NICE" (non-inflationary constant expansion) by the Bank of England. It represented a triumph of achieving tremendous expansion of the FIRE industry along with a much lower and steady rate of "core inflation". A crucial cornerstone of this process was widespread indebtedness. "The great moderation" entailed effective control of core inflation via setting of interest rates by the central bank. When there is a low level of indebtedness, interest rates have less traction for controlling core inflation. Companies with a low level of debt will have a high proportion of cash flow available as profits. Those profits will be potentially targeted by workers demanding higher wages. A highly indebted company will use much of the cash flow for debt servicing. Workers realise the precariousness of their jobs when debt foreclosure threatens and so are not in a position to demand

wage increases. To some extent wages are determined by long term arrangements and expectations and that puts them out of reach of immediate central bank control. However, if households are highly indebted, then funds available for household spending are governed by interest rates. At low rates, credit providers will judge that households can afford to become further indebted. That fresh credit provides an extra source for household spending. When interest rates are high, a large proportion of household income will go towards interest payments and less new credit will be available. That provides a brake on household spending and the core inflation it governs. Debt repayment obligations also make workers more compliant and less inclined to risk their jobs.

### *Monetary expansion attempts to realise the miracle of compound interest*

The money that we use is predominately based on interest bearing debt. To some extent the interest recycles as creditors pay debtors to provide labour for the creditors. At its most extreme form this manifests as debt peonage where people labour for their entire lives purely to service their debt burden. Such recycling of interest is nevertheless sustainable from an accounting view point.

Unsustainability arises when interest payments are themselves lent out such that compound interest is gathered. In 1772 Richard Price noted that,

“Money bearing compound interest increases at first slowly. But, the rate of increase being continually accelerated, it becomes in some time so rapid, as to mock all the powers of the imagination. One penny, put out at our Saviour’s birth at 5% compound interest, would, before this time have increased to a greater sum than would be obtained in a 150 millions of Earths, all solid gold. ”

Obviously none of the savings accounts started throughout history have accumulated that much. No exponentially increasing claim over finite real resources is sustainable for long. A comprehension of finance depends on appreciating the ways by which such claims become thwarted and the (eventually always futile) attempts to ensure that they are not.

For debt repayments to be sustainable, the ability to service the debt needs to grow at least as fast as the debt does. Inflation reduces the value of debt liabilities and so keeps them serviceable. In some circumstances, interest payments feed into inflation so facilitating debt servicing. Problems arise when inflation is determined by the spending of those paying interest rather than those receiving it. Such debt is deflationary. Government Treasury debt (under our monetary arrangements) results in interest payments by the government to the public. A fifty year bond paying a 4% annual coupon ends up paying twice as much interest as principle. Depending on the tax system and who owns the debt, such interest payments may feed into expanding consumer spending, inflation and tax revenue and so [keep the real value of government borrowing under control](#). Curiously one way to enable increasing private sector indebtedness is by escalating government indebtedness. The inflationary impetus of government deficit spending moderates the [deflationary effect of private sector debts polarised between wealthy creditors and debtors who are short of spending money](#). The twin pillars of inflationary deficits and debt deflation prop each other up to support [an ever expanding overhead of monetary wealth](#). Without such a dynamic, the value

of such claims would be limited by the total amount of natural resources, man power and accumulated technology, infrastructure etc. available for sale.

Seemingly the current system [allows monetary claims over wealth to amount to a greater and greater multiple of everything real there is to buy](#). Is this something to be sanguine about? The question arises as to what purpose such wealth is likely to be put. Each extra trillion dollars of paper wealth [warrants an attendant army of financiers](#) to ensure that it extracts [economic rent](#) to further multiply at the maximal possible rate. It constitutes [an administrative burden on the real economy](#). Extrapolating into the future, we may become so preoccupied with managing an exponentially growing overhead of pretend paper “wealth” that we fail to rise to the real world technological challenges posed by natural resource constraints and population growth.

If financial wealth expands to a disproportionate extent then it starts [to distort the price signals](#) that are required to ensure an efficient real economy. This has already become apparent in [commodity markets where “index investing” has caused prices to no longer reflect supply and demand for the underlying commodities](#).

To some extent money is power. If a median wage becomes an ever smaller fraction of what is considered “serious money” then the economy and the political system will stray ever further from being governed by the considerations of those living on a median wage.

## **A zero interest rate policy does not reduce the financial overhead**

It is sometimes celebrated that the current ultra-low interest rate regime supposedly reduces the “unearned increment” taken by “rentiers”. Some [politicians effuse about the exceptionally low “cost of capital” enabled by the current financial climate](#). Interest free credit for the financial system means boundless financial [leverage](#). Financial leverage powers the ability of the finance industry to feed off of financial instability and also creates and amplifies such instability.

The [current zero-interest rate policy was brought about in Japan](#) to save the Japanese banks after their stock market and real estate price collapse of 1990 and then in the USA and UK after the global asset bubble burst in 2008. Reducing interest rates tends to boost asset prices (see page 11). Ultra-low interest rates also enable banks to “earn their way out of insolvency” by conducting interest rate [arbitrage](#) especially across national boundaries to regions with much higher interest rates. In fact just such a “[carry trade](#)” between [Japan and the rest of the world provided some of the impetus for the bubble in the lead up to 2008](#). The impact of zero interest rates runs much deeper than such effects however. Understanding how interest free credit benefits the finance industry requires an understanding of how financial markets extract cash flows via price volatility. Potentially a fluctuating price can be harvested to provide a cash flow. If a security maintains roughly the same price over the long term then that means any 20% drop in price eventually being matched by a 25% rise ( $4/5 \times 5/4 = 1$ ), any 50% drop being matched by a 100% rise ( $1/2 \times 2 = 1$ ) and any 90% drop being matched by a 1000% rise ( $1/10 \times 10 = 1$ ). Obviously, simply holding such a security would provide no benefit as the price would simply bob up and down with no overall gain. However a 50% drop from \$100 is a \$50 loss whilst a 100% gain from \$100 is a \$100 gain. The [fluctuations in the price are geometric](#) but money is money. The fact that financial holdings can be bought and sold allows that [geometric to linear inconsistency to be harvested](#). Simply periodically rebalancing such a holding

against a holding of cash would extract financial gains. [Rebalancing across a portfolio of securities with independently fluctuating prices optimises that process.](#)

Rebalancing between financial holdings bids up the prices of whatever is cheap and bids down the prices of whatever is expensive. Such trading moderates the price fluctuations that it depends upon. [However, such 'liquidity providing' speculation is accompanied by extensive 'liquidity taking' speculation that amplifies price fluctuations.](#) If a trader envisions that prices are due to rise (or fall) then she can take advantage of such anticipated price changes. [In an idealised market where no participant had 'an edge' such 'liquidity taking' speculation would not make sense -the market as a whole would have already priced in any predictable price movement.](#) However in the real world, [market-moving levels of finance](#) are controlled by traders who do have 'an edge' over the market as a whole. Liquidity panics occur when traders risk losing everything due to the market moving against their [leveraged](#) positions. Consequently, [increases in the volume of trading activity typically increase rather than decrease price volatility.](#)

Security trading is a zero sum game. For every participant who buys low and sells high someone else has to have sold to them and bought from them. Certain financial securities are firmly linked to the real economy. Commodity futures set the prices for essentials such as [crude oil](#), [grains](#) and [industrial metals](#). Producers and processors of such commodities have real world considerations when they decide whether to sell or buy. The real economy provides the "chump" who ends up buying high or selling low so as to provide the trading gains for financiers. Previously, the borrowing cost for the funds used for trading limited such financial extraction. Interest free credit removes that constraint.

The dream of "[popular capitalism](#)" was for everyone to own stocks and align with capitalistic interests to benefit from corporate profitability and efficiency. Various government schemes endeavoured to induce households to buy stocks. However a shift in the capital structure of many companies allows much of the potential benefits to slip past "mom and pop" type stock holders. In principle, the stock market provides a mechanism for distributing corporate profits amongst the shareholders. However, companies can decide to take on debt such that much of the cash flow services the debt instead of going to profits. Low interest rates favour such corporate leverage. Corporate debt is encouraged by the current [severe taxes on corporate profits](#). Debt servicing costs are fixed ahead of time whilst the corporate cash flow varies according to the varying fortunes of the company. Once a fixed block of cash flow is pledged to creditors, any variation becomes proportionately much more dramatic for the remaining profits. The consequence is [amplified share price volatility](#). Management payment in the form of [stock options](#) especially [encourages a capital structure orientated towards inducing share price volatility.](#)

A highly indebted company needs to nimbly keep the debt burden serviceable by either paying off debt if tough times are envisioned or expanding the debt and buying back stock when times are good. In effect [the company itself acts as "the chump" using profits for share buybacks and acquisitions -bidding up oscillations in its own share price.](#) Those shareholders who know what they are doing are able to harvest that volatility by buying and selling at opportune times. The benefits entirely pass by the other shareholders who simply hold the stock as the price bobs up and down. All [of the gains pass on through to be captured](#) by those who trade astutely. [Some shareholdings last for less than a second in an effort to harvest wiggles in the price on a microsecond timescale.](#)

When financial leverage goes wrong, the assets bought on credit may fall in value to become worth less than the money owed. Historically, bankruptcy laws were extremely harsh on debtors and so financial leverage was feared. Without limited liability laws, company owners were personally on the hook for every debt. Nowadays, however, debts can be taken on such that there is an amplification of any gain (which is pocketed) or an amplification of any loss (which becomes un-payable and so is apologized for). The bank bailouts since 2008 have taken this asymmetry to another dimension. The government stepped in and said that it would pay for all of the losses so that none would be suffered by the creditors (predominately also banks and financial institutions in a reciprocal web of lending). [Richard Bookstaber summarised the strategy](#) ,

“Innovative products are used to create return distributions that give a high likelihood of having positive returns at the expense of having a higher risk of catastrophic returns. Strategies that lead to a ‘make a little, make a little, make a little, ..., lose a lot’ pattern of returns. If things go well for a while, the ‘lose a lot’ not yet being realized, the strategy gets levered up to become ‘make a lot, make a lot, make a lot,..., lose more than everything’, and viola, at some point the taxpayer is left holding the bag.”

Currently, high finance is an extremely complex business. It requires a colossal technological and human effort. The most advanced and expensive computers are dedicated to high frequency trading (HFT). The best and brightest are [educated at elite universities](#) to prepare them for the intense battle of mathematical genius that financial trading has become. Traders pay exorbitant rents so as to have their computers next to those of the major exchanges to avoid even the slightest time delay. [A private fibre optic cable has been laid directly between New York and Chicago so as to gain a microsecond advantage for comparisons between the futures and stock markets.](#) It is easy to become beguiled by the sheer complexity and effort of it all. People marvel at superlative feats of human endeavour and the financial markets are the Great Pyramids of our time. That is not to say that it is not [counter-productive](#) and essentially moronic.

The [vast sums skimmed off from the economy by the vastly expensive finance system](#) could mostly be avoided if money used for financial leverage had a cost such as would be the case under an asset tax system. The [useful functions of price discovery and exchange would be better served by pedestrianized financial markets in which all participants interacted on a level playing field.](#) Advanced computers would be rendered pointless if transactions were conducted with a time resolution of minutes rather than microseconds. Such a time buffer would end the vastly expensive arms race in computer technology between elite traders. The current ultra-low-latency trading environment often provides a perfectly continuous price variation down to a microsecond resolution. That much applauded attribute is only of any relevance for ultra-low-latency traders in their quest to out manoeuvre other participants. Whilst advanced technology normally creates such (superfluous) pricing precision it occasionally runs amok creating gross mispricing events such as the [“flash crash” of May 2010](#) and the [Knight Capital fiasco of August 2012](#). A genuinely efficient financial market is one that allows prices to be formed that genuinely reflect supply and demand and does so at minimal cost. Excessive opportunities to “make money” from trading are an indication of a dysfunctional market. However, the current market structure is entirely a concoction for just that purpose. The failure of current financial markets to serve their original purpose is apparent from withdrawals. [Farmers are now making less use of futures to hedge](#) their prospective crop yields.

There has been a transfer of stock ownership from households and pension funds to financial institutions.

## More detail of the suggested asset tax, citizens' dividend and financial reform.

### *Gross Asset Tax*

The most crucial reform would be to abolish all current taxes and replace the current tax burden with a single tax applied equally to all gross assets. Very roughly, [the UK population has gross assets of about £10T](#). This amounts to about £160k per person but obviously is [very unevenly distributed](#). Total [annual government spending is currently about £700B](#) or £11k per person, which is about 7% of that asset value per year. In addition to such assets owned by households, other financial assets and liabilities are owed between financial institutions. For instance, if two banks each owe each other £100B, then that £200B of gross assets will net out and so not be overtly apparent as an asset for households owning shares of those banks. There [is about £10T of such debt between UK financial institutions](#). There are also cross holdings of [financial derivatives](#). The proposed gross asset tax would apply to assets before any such netting out.

A key purpose of the asset tax would be to ensure that paper assets are not concocted unless they can pay their way. Presumably a gross asset tax would lead to financial sector deleveraging (eg by loan write-downs) and that would reset the tax base to a lower level. The [true purpose of taxation](#), however, is not to “raise revenue” but rather to maintain the true value of money. The aim is to re-align the economy towards providing true utility and away from monetary schenanigans.

The UK economy is integrated with the global economy. [Assets in the UK are owned by foreigners and UK citizens and institutions own foreign assets](#). Multinational companies have operations in the UK and in other countries. That allows a beneficial global pooling of expertise. This situation nevertheless creates [complexity for the current tax system](#) and would also be a challenge for an asset tax system.

GBP cash and government bonds would need to have the asset tax deducted at source. Crucially the asset tax would have to apply to GBP financial assets owned by foreigners as well as those owned domestically. A key purpose of the asset tax is to avoid long term sink holes for net financial flows. Hoarding of GBP financial assets by foreigners is just such a distortion. Discouraging such foreign use of GBP financial assets as a store of value would allow exchange rates to properly reflect and correct trade imbalances. Holdings of any other sort of debt security by UK citizens would also need to be subject to the asset tax.

Real estate on UK territory would need to be directly subject to an asset tax whoever owned it. You cannot hide real estate and so direct taxation of real estate would provide an entirely inescapable core for the asset tax. Even foreign owned UK real estate would need to be taxed. If foreign owners were able to avoid paying, then all UK real estate would simply become foreign owned. If someone owned a £200k house with a £150k mortgage, that homeowner would still need to be liable for the full tax on the £200k asset. To a large extent such leveraged ownership amounts to a duplication of

financial wealth (both the house and the mortgage are assets). Taxing the gross asset value is appropriate since a doubling of house prices would benefit the homeowner in proportion to the gross asset value irrespective of the mortgage.

Entirely overseas assets owned by UK citizens would be taxed at the level of the owner. So if a UK citizen owned £10k worth of shares in say a Brazilian mining company (or foreign currency or foreign real estate), then that citizen would pay the tax based on that value. Entirely UK based companies would be taxed at the company level. So shareholders of an entirely UK based company would not pay any asset tax directly on that shareholding. As already stated, any UK real estate or GBP owned by that company would be taxed directly. The remaining value of the company would be taxed on the basis of the market capitalization plus debt liability with a deduction for any real estate holdings (that already would have been taxed). Including debt in the corporate asset tax liability means that a UK citizen would be (indirectly) paying more asset tax when holding shares of an indebted UK company than of an indebted foreign company. However since the foreign company would be paying the foreign country's corporation taxes, there would probably be no overall tax advantage for ownership of foreign versus UK company shares.

A multinational company with operations in the UK would pay UK tax at the company level based on those UK operations. A real risk would be companies playing the system and so making use of the lack of corporation, sales and income taxes here whilst minimising asset tax liability here. As already stated, any UK real estate or GBP owned by that company would be taxed directly. Harder to pin down would be the tax liability from, for instance, having a large research and development program in the UK. Possibly the best approach would be to divide the tax liability on the basis of the proportion of cash flow attributable to the UK operations. So if a company had 25% of its cash flow from UK operations, then the asset tax due would be based on 25% of the corporate debt owed plus total company market capitalization with the tax already paid on UK real estate deducted. UK shareholders of multinational companies would have to pay the tax for the remaining "foreign" portion of the company that was not taxed at the company level.

Currently the UK hosts banks that hold [colossal webs of financial derivatives](#). London provides a global centre of expertise for such activity and has a buccaneering, free-wheeling regulator system that facilitates innovative financial engineering. Of [the \\$707T USD notional value of outstanding financial derivatives held worldwide, \\$417T come from London](#). To put that in context, global GDP is [about \\$70T USD](#). An asset tax system would be incompatible with hosting such activity. Obviously such derivative contracts could never hope to earn enough to pay an asset tax imposed on their notional value. Those banks would need to relocate to other countries and cease UK operations. In terms of loss of well-paid jobs it would be painful. Goldman Sachs is an archetypal example of such an institution. They [hold \\$44T USD of financial derivatives](#). They [have 5500 London based employees and pay each employee an average of £336k per year](#). To some extent having firms such as Goldman Sachs in London can be seen as a pure gain for the UK economy. [The US government has spent tens of billions of dollars bailing them out](#), they [extract money from the entire global economy](#) and yet a good portion of what they extract and get bailed out with goes to UK based employees. Such considerations, however, have a corrosive, warping effect on governance of the economy. The role of our monetary system should be to facilitate the activity that everyone would want if money were not a consideration. A monetary system designed so as to facilitate gaming of the system is a bottomless pit leading towards ultimate system failure. Another consideration is whether such firms

actually constitute a “brain drain”. People [currently employed as elite financial engineers would presumably also be doing complex, ground-breaking, work if they were otherwise engaged.](#)

Currently trivial asset classes such as collectables would also need to be covered. Doing so would ensure that they did not become significant speculative stores of value. Legal ownership of anything would be dependent on being up to date with the asset tax.

[Trusts](#) are currently used to hold assets for collective pension saving schemes, charitable endowments, and some households and institutions. Assets held under trusts under UK jurisdiction could be subject to the same asset tax as if they were held directly by a UK citizen. So taxation would be at the level of the trust and administered by the trustee. Ownership of UK assets by foreign trusts could be subject to the same taxation as ownership by a foreign citizen. UK citizens owning shares in a foreign investment trust could pay tax just as if they were shares in an entirely foreign company. That would lead to tax inefficiency for foreigners owning shares in UK trusts and for UK citizens owning foreign trusts that held UK assets but minimal economic disruption would result. A UK citizen transferring assets out of UK jurisdiction by transferring them over to an offshore trust could be subject to a one off “expatriation of assets” tax of say 50%.

Regulatory restrictions on land use etc would reduce the asset value and so the tax liability. If some land was a nature reserve with a public right of access, then it would have a minimal asset value and so the tax would be affordable for community groups, ancestral owners etc. Asset prices would reset to being whatever people who wanted to own an asset were willing to support through exposing themselves to the tax. For “consumer assets” such as houses, cars, paintings, leisure boats etc that price would be a function of what people felt able to afford as personal consumption. For “working assets” such as company shares, debt securities, farmland or commercial property, the price would set to a level where yield justified the asset tax exposure.

Currently, asset values are assessed for [inheritance tax](#) purposes. The same process would need to be applied universally for an asset tax system. It would be burdensome, however the same is true for the current myriad of different taxes that it would replace. If someone disputed the valuation set for taxation, then they could put the asset up for auction. If they could buy it back for a lower price, then that would be the taxable value.

People often choose to live and work in different countries at different times of their lives. It is important not to impede mobility but also important not to induce [counterproductive tax avoidance migrations](#). That provides a challenge for taxation systems. The USA, for instance, currently has a complex [expatriation tax](#) system and taxation is based on US citizenship not simply US residency. Under an asset tax system, tourists and short term (eg two month) working visitors could be tax exempt. Perhaps foreign citizens resident long term in the UK could be largely subject to the same tax system as UK citizens whilst they were resident here. Any assets already owned before the UK residency could be tax exempt. An exemption on the asset tax could also extend up to the value of the citizens’ dividend (which they would not receive). Upon leaving the UK, a foreign citizen could choose to either continue to pay the asset tax, for any assets obtained whilst resident, or to pay a one off exit charge (much like current US expatriation taxes) of say 50%. UK citizens would need to be subject to the asset tax irrespective of where they lived. However, UK citizens living abroad could be exempt from the asset tax up to the value of the citizens’ dividend (which they would not

receive). A UK citizen choosing to revoke citizenship could choose either to continue paying the asset tax on the assets they had obtained up to that point or to pay an exit charge of say 50%.

### *Citizens' dividend*

The overall aim would be to have a citizens' dividend that would be just sufficient to live on in a "developed world" style. Perhaps £7000 per year might be an appropriate amount. That would be for people of all ages instead of all other benefits such as housing benefit, income support etc. Some people living entirely on benefits might be worse off than they are today. The massive difference would be that anything earned would not affect the citizens' dividend. Currently for many people on means tested benefits, any work they can get is simply deducted from their benefits leaving them **almost no better off**. There is also currently a hugely complex bureaucracy to administer the current system of deductions and tax credits. For the wealthy, the citizens' dividend would mainly act to offset the higher tax burden they would have to bear due to the asset tax. Once the citizens' dividend was taken into account, the household finances of the wealthy would still be comfortable.

**Current UK annual welfare spending** consists of the £167B budget of the department for work and pensions and (from the revenue department) £12B for child benefit and £30B for personal tax credits. That total of £209B is about £3300 per person and about 30% of total government spending. £3300 is considerably less than the suggested £7000 citizens' dividend. Although the government might need to "tax and spend" to a seemingly excessive degree under a citizens' dividend system, it is crucial to recognise that a large part of that citizens' dividend spending would entirely net out due to it simply offsetting the asset tax for people with assets. More typical current "tax and spend" government initiatives entail government control of how money is spent. The citizens' dividend leaves that control with individuals.

### *Banking reform*

The proposed gross asset tax would take the wind out of the sails of the financialization process. Nevertheless, economic democracy would also be served by some further reforms. The current system of bank bailouts could stop. The overall principle could be that nothing could be offered as a financial service unless it could actually be delivered without calling upon a bailout. The current concept of bank deposits backstopped by the state is a travesty. People making use of banks typically consider bank deposits as being the depositor's money held by a bank acting as a custodian. Giro banks have in the past administered payment systems in that way. Aligning reality to that widely held expectation would mean **prohibiting lending by deposit holding institutions**. Such a payment system would be a mundane shockproof utility requiring no state backstops. Never again could politicians be bamboozled into bailouts by threats to disrupt the payment system.

In the absence of conventional bank lending, shadow banks would be left with the job of credit provision. The **credit crunch crisis of 2008 was a run on the shadow banking system** that occurred because savers stopped trusting the debt securities sold by the shadow banks. Financial stability would be served if shadow banks were "pedestrianized" into only being permitted to sell debt securities that they could actually honour. **A key reform would be to require all loans to be kept on**

the books of the institutions that made the loans. That would curtail lending to borrowers who clearly were not going to repay.

Currently, often long term (eg 30year) loans are funded by sales of short term (eg 30 day) debt securities. As those short term securities mature they need to be rolled over by selling more. If the securities sold were for the same timeframe as the loans funded, then that roll over risk would be eliminated. There is currently great demand for very long term (eg. 50 year) treasury debt securities. By contrast, the instability of the current financial system causes distrust of long term debt securities issued by the finance industry. It is a vicious circle where long term funding is more expensive than short term funding due to fear of the roll over risk that comes from the maturity mismatch. Eliminating the mismatch would eliminate the distrust that necessitates the mismatch.

The role of the central bank could retreat and commercial interest rate setting could be left to market forces. The central bank could allow short term treasury interest rates to fall to zero (as is currently the case in Japan) and issuance of long term treasuries could be discontinued. That would channel all demand for long term debt securities towards funding for long term loans. Retail savers would generally hold such long term securities indirectly as funds that held hundreds of individual securities. As is now the case, long term debt securities could be bought and sold and the price would fluctuate as the market dictated. As now, such price fluctuations would be a sought after source of portfolio diversification for savers.

The debt securities issued by shadow banks would be marketed as saving vehicles with credit risk just as today. Interest rates and the availability of credit would be a function of savers' inclination to hold debt securities. Reality would then match the classic fairy tale account that is often given of how our credit system operates. If savers were not inclined to buy debt securities at a price that would fund repayable loans, then that would curtail credit availability. Such a curtailing of credit would be calamitous for an economy where other sources of funding were not available. However, in the context of an economy with a citizens' dividend, it would simply mean a shift from debt financing to equity financing. Venture capital trusts are institutions that currently provide equity financing for small businesses. Under the proposed reforms, the role of such small scale provision of equity financing would probably be greatly extended.

In principle even lending for house buying could be by equity finance. A lending institution could initially buy the house with a contract for the householder to gradually buy the house and to pay rent on the proportion of the house not yet bought. The agreement could be to buy 1/20<sup>th</sup> of the value in the first year, 1/19<sup>th</sup> in the second year etc until the house was entirely owned by the householder. The crucial distinction from a debt based system would be that the purchase would be on the basis of the value of the house at the time each portion was bought. If house prices rose then the householder would pay more. If they fell, the householder would pay less. The householder would not gain a leveraged position on rising house prices. The lender would never imagine that rising house prices could enable the householder to use refinancing to repay. The house would be re-valued each year for asset tax purposes anyway. The asset tax would be paid by the householder for the portion that the householder owned and for the lender for the part the lender owned.

These reforms of the banking system would greatly reduce the phenomenon of endogenous expansion of the stock of broad money. The boom-bust business cycle would give way to a rational

allocation of resources based on what people trusted would improve utility and so preserve their savings.

### *Reform of financial markets*

The overriding consideration would be to ensure that the markets robustly enable price discovery and exchange at the least possible cost. Market efficiency depends on all participants having similar trading agility and access to information. A time buffering system would be required so that when a trading order was submitted, it was subjected to a randomised brief time delay of several seconds. [At a stroke that would eliminate the vast sums currently spent on ultra-low-latency trading systems](#) and also eliminate [the market distortions and dislocations that occur due to the “uneven playing field” that those systems create](#). Successful market making systems would then simply become those that had the lowest operating costs. The security markets would become a mundane utility rather than the battle ground of mathematical and computer wizardry that they are today.

The increased cost of capital resulting from proposed banking and asset tax reforms might allow slightly larger [arbitrage](#) opportunities to build up than is currently the case. Such un-harvested arbitrage opportunities would simply end up being arbitrarily distributed amongst market participants. If a trade is slightly mispriced, that simply means that one party gains at the expense of the other. For instance, imagine that two equivalent debt securities are trading at slightly different prices. The people needing to divest from the under-priced security will be unlucky but those buying it will be lucky. No calamity has occurred. The current system eliminates many such inconsequential events but instead creates calamitous “wheels come off the train” style events at regular intervals.

### **How this relates to land value tax, Georgism and wealth taxes today.**

The gross asset tax described here is similar to the [capital tax proposed by Michal Kalecki \(in 1937\)](#) as a form of taxation that would be compatible with full employment and a sustainable budget.

[Michal Kalecki wrote,](#)

“ the inducement to invest in fixed capital is not affected by a capital tax because it is paid on any type of wealth. Whether an amount is held in cash or government securities or invested in building a factory, the same capital tax is paid on it and thus the comparative advantage is unchanged.”

[Michal Kalecki also proposed](#) that fiscal stimulus should avoid wasteful, pointless, public works and be spent on “family allowances” (ie a citizens’ dividend) if there was no pressing need for government directed projects.

Michal Kalecki’s proposals are probably less well known today than are earlier proposals for land value taxes. [Adam Smith](#) and the [Physiocrats](#) considered that replacing all other taxes with a [land value tax](#) would optimize the economy. [Henry George](#) later expounded this idea and combined it with the [citizens’ dividend proposed by Thomas Spence](#). The Georgist idea was that the natural world is “morally” everyone’s property and so everyone should benefit from the monopoly privilege that land provides. By contrast individual ownership of human creations such as debt securities, business enterprises or buildings was deemed deserving of any economic rents that they provided.

Part of the logic of [Georgism](#), is that human creations can be duplicated whilst land cannot. So an economic rent gained from, for instance, a debt security should be free of tax so as to encourage the formation of more such “wealth” until the point where no more economic rent can be extracted. The Georgists claimed that [land ownership underpinned all sources of economic rent](#). I have argued here that it is vital to apply an asset tax to all assets whatever form they take. In the real world valuable assets cannot be immediately endlessly duplicated. That is why [some assets have value and yet have no connection to land holdings](#). It is important to fully appreciate that wealth held in one form acts as [an option to hold wealth in another form at a later date](#). A mouse click is all that it takes to change a land holding (for instance a [REIT](#)) into a [debt security holding](#) or a [technology stock holding](#) and back again. Consequently, with regards to an asset tax, it makes no sense to differentiate between different forms of claims over wealth.

[Adam Smith’s argument about ground rents](#) could equally well be applied to other forms of asset holding:

“Ground-rents are a still more proper subject of taxation than the rent of houses. A tax upon ground-rents would not raise the rents of houses. It would fall altogether upon the owner of the ground-rent, who acts always as a monopolist, and exacts the greatest rent which can be got for the use of his ground. More or less can be got for it according as the competitors happen to be richer or poorer, or can afford to gratify their fancy for a particular spot of ground at a greater or smaller expense. In every country the greatest number of rich competitors is in the capital, and it is there accordingly that the highest ground-rents are always to be found. As the wealth of those competitors would in no respect be increased by a tax upon ground-rents, they would not probably be disposed to pay more for the use of the ground. Whether the tax was to be advanced by the inhabitant, or by the owner of the ground, would be of little importance. The more the inhabitant was obliged to pay for the tax, the less he would incline to pay for the ground, so that the final payment of the tax would fall altogether upon the owner of the ground-rent.”

If owners of, for instance, company stock had to pay tax on that stock holding, it would also only affect the owners so long as all alternative asset types were also subject to the tax. It would not disincentivize creation of profitable companies. It is important to note that this is not a tax on the creation of assets but rather a tax on the ownership of assets. People with savings would need to own something as a store of value. Ownership of companies capable of yielding enough to pay the asset tax would be sought after. Much as a land value tax is proposed to ensure that full use is made of land, an asset tax ensures that full use is made of financial capital. [Purely financial capital can of course expand in a way disconnected from the earnings of any underlying tangible wealth](#). I actually view that as a good reason to subject “paper wealth” to an asset tax. A tax on gross assets would rationalize such monetary expansion. Paper wealth is just a way to portion up the real world. All that increasing paper wealth can do is redistribute power over other people’s time and possessions. It can only create (or destroy) tangible wealth insofar as it alters how much tangible wealth people waste or create.

The Georgist land value tax proposal depends on being able to assess the unimproved ground value. It is very hard to assess the true value of the ground. In the USA [commercial property owners can currently claim tax deductions based on depreciation of the buildings they own](#). Obviously in reality

much of the value of the buildings is due to location rather than the fabric of the buildings. Nevertheless [tax authorities are currently unable to disentangle such land value and so depreciation provides a classic tax loophole](#). Even from a purely philosophical view point it seems hard to disentangle unimproved ground value. The current recipients of ground rent for land, in for instance [Canary Wharf](#), benefit from that location being extremely valuable. That value is a consequence of the property development that occurred in that neighbourhood. The land owners of the past ensured that a suitable urban environment was created for buildings to command high rents and so to be able to afford high ground rents and land values. If they had not lobbied for transport links and kept away undesirable property development, then the location would not command its current premium. I do not see how someone currently buying a claim to the ground rent of land in Canary Wharf is doing anything different from someone buying shares in [Tesco](#). Both are assets that enable economic rent to be gathered primarily due to previous human efforts to create that value. The development of the Canary Wharf shows that owners of land in the rival [City of London](#) had no more of a monopoly privilege than did existing grocers before Tesco expanded.

Today several countries levy small levels of [taxation on net worth](#). [Such taxes are recognised as being more progressive than most other forms of taxation](#) and to [favour creation of tangible wealth](#). Such taxes differ from the tax proposed here in that they are on net worth rather than gross asset value and they are additional to rather than in place of all other forms of taxation. A key aspect of the suggestion made here is the removal of all other types of tax. [Lifting that drag on economic activity](#) and the administrative cost of those taxes is a crucial part of the suggestion. Taxing gross assets also fully accounts for the effects of financial leverage.

## **Appendix: Gold Island –a fable**

At first glance it may seem strange that the need ever arises to create seemingly baseless money out of thin air. It also seems counter-intuitive that ambitious, talented people could ever become economically excluded. An imaginary extreme scenario might clarify these issues.

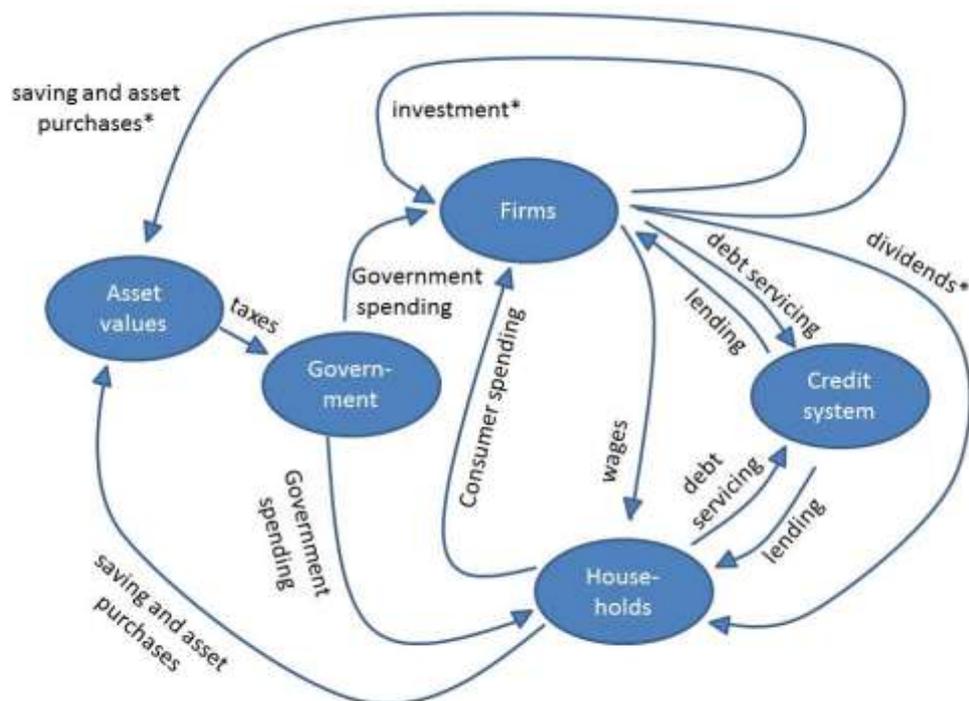
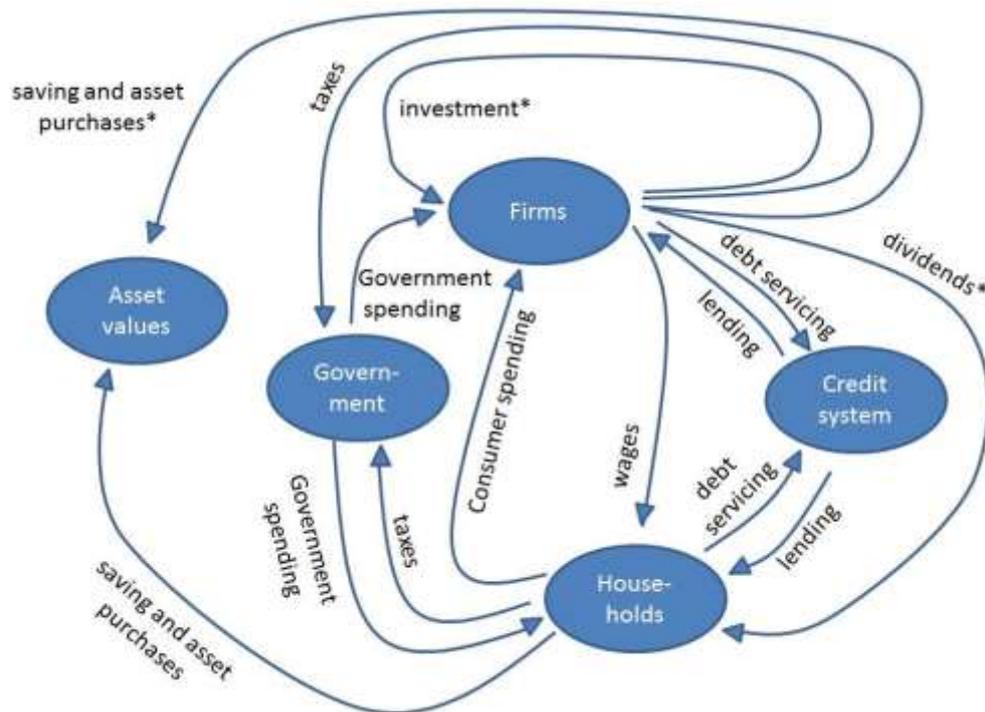
Imagine a scenario where a new previously uninhabited island was colonised by ten million colonists. The new island has ample natural resources and the colonists are all well-educated, hard-working, etc. and between them have all of the knowledge and experience to make state of the art computers, planes, medicine etc from the natural resources available on the new island. They are fed up with the rest of the world and want to run a free standing closed economy. They all are strict adherents to a hard money philosophy where nothing is done except for payment in gold coins. Ten families out of the ten million colonists arrive with a million gold sovereign coins each. There is no other gold on the island. The other colonists don't arrive with any gold or anything else but they don't worry about that because they are confident that they can borrow from the gold bringers and have marketable skills etc. The gold bringers are also keen art collectors. They each bring many ancient works of art. They have a friendly rivalry between each other as to who has the best collection. They have free entry art galleries to display the art and each gallery tries to buy out the art collections of the others. The galleries each have displays that constantly change theme (eg Ming

vases this week, impressionist paintings next week etc) and so there is a constant turn over in the art market with weekly high stakes auctions.

Each person is allotted  $1/10\,000\,000$ th of the island. That is not enough for each person to live a comfortable life without exchange of expertise and individual resources (eg coal for copper ore, fish for rice etc etc). The first thing that the gold bringers do is to enlarge their land holdings by using a small amount of gold to buy enough such that each gold bringer is entirely able to live off their own land in an entirely self-reliant manner. That takes up 1% of the island. The rivalry between the gold bringers means that they each want to get back that gold in order to buy more art from each other so as to be able to have the most impressive collection. The gold-bringers have no wish to buy anything other than ancient art. They get all their other wants amply met by their own labour on their own large ranches that they love to tend themselves.

The gold bringers fall into two opinion groups. One group believes that the way to claw back the gold (initially spent to buy land) is to make loans at interest to the rest of the population to enable the rest of the population to conduct trade with each other. They hope that in that way they will be able to claw back all of the gold they lend together with the small amount initially spent to buy land. The other group of gold bringers believe that they are better off just considering the gold spent on land as a permanent loss and so using all of their remaining gold reserves in the bidding battle to get the best art collection.

Which group will get the best art collection in the end? My bet is that it would be those gold bringers who never lent out any gold and instead kept it all to buy art. Would the amount of gold in circulation amongst the wider population enable trade? What if one talented non-gold bringer got together most of the gold in circulation amongst the non-goldbringers and used it to buy one painting from a gold-bringer collection?



\* Firms' saving and asset purchases, dividends and investments together comprise after tax profits. After tax profits are what induces firms to exist. If there is no opportunity for after tax profits, then firms will sell up and cease operations.

**Diagram of monetary flows under our current system and under an asset tax system.**