Where does the money go?

How inequality and inefficiency are built into our financial system

July 1998

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Contents

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Section 1 - A Theoretical Model

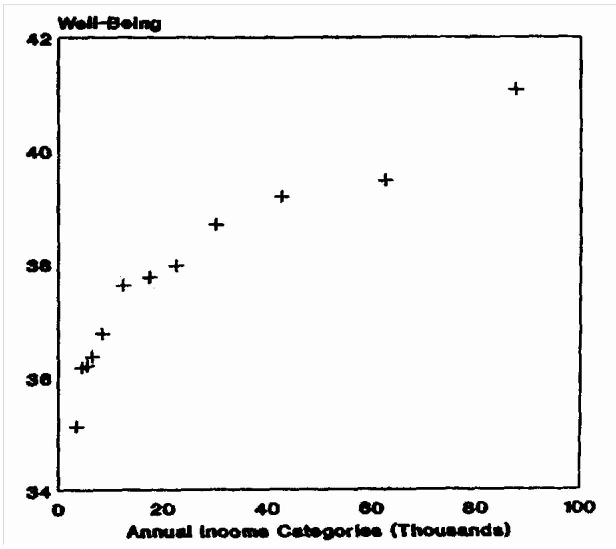
Introduction

Although income inequality appears to be a fact of life there remains general agreement that there should be such a thing as social justice, if this is given to mean at least an approximation to equality of potential achievement. This apparent incompatibility can only be reconciled if money income is neither the only measure of human well-being and fulfilment nor the only means to achieving it. Yet it may well be that the fundamentals of the global financial and economic system are such as inevitably to both *widen* income inequality and also to *increase* the importance of money in achieving individual well-being and happiness. In this paper I intend to demonstrate this in two ways. Firstly I suggest how particular changes in economic circumstances are likely to affect different groups of individuals based on our knowledge of the relationship between human well-being and income levels. I go on to extrapolate the likely socioeconomic consequences of this. Secondly I will look at the economic and social data over a particular time of marked economic change in the UK, the period roughly between 1980 and 1995, to show that the extrapolation made in the first section appears to be true. On the assumption that these hypotheses continue to be supported by the empirical evidence, I suggest how the trends toward inequality and the increased importance of money might be ended or even reversed.

Happiness and Income

Work by Ruut Veerhoven of Erasmus University, Rotterdam and Ed Diener of the University of Illinois[1,2] show that the relationship between different levels of income and happiness as measured by immediate emotional well-being and general life satisfaction shows two distinct phases. At lower levels of income there is a close correlation with increasing income and increasing happiness, presumably because access to certain fixed bio-psychological needs increases, but at higher levels of income this correlation becomes much less obvious, fixed needs having already been adequately fulfilled. The curve produced from data on income levels and happiness (using a measure of well-being previously accepted as valid and reliable) from individuals in 100 locations in the US between 1981 and 1984 is shown in **Figure 1.**

1 Veenhoven R. Is Happiness Relative? *Social Indicators Research* 1991;24:1-34
2 Diener E, Sandvik E, Seidlitz L, Diener M. The Relationship between income and subjective well-being: relative or absolute? *Social Indicators Research* 1993;28:195-223



(Reproduced from Diener et al, 1993)

Figure 1. Income and well-being for US

There appears to be a level of income which divides two distinct groups in society in terms of the importance of further rises in their income, as demonstrated in **Figure 2**.

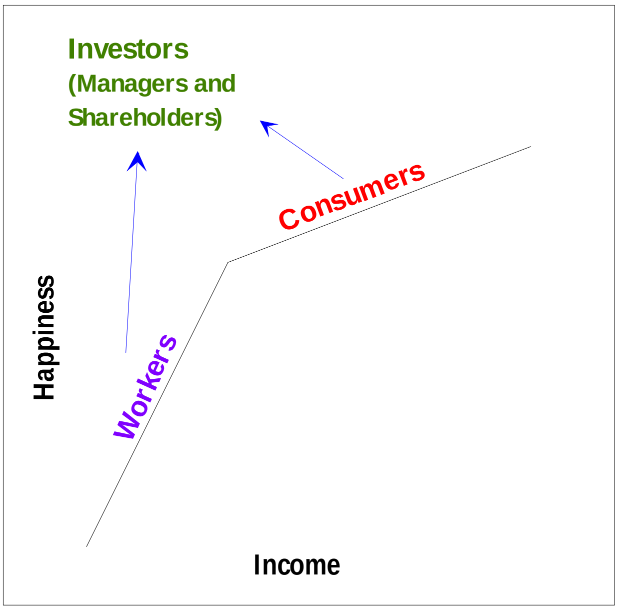


Figure 2. Socioeconomic Groups as defined by the Income-Happiness Curve

I have entitled these groups as follows:

Workers are lower-paid, have low-skilled jobs and tend to have the following characteristics in common:

- Small increments in income produce marked improvements in happiness
- Relative lack of education, information and mobility means they tend to have less choice in goods and services
- Information deficit and reduced choice means they are more likely to suffer from the harmful effects of goods and services such as tobacco, alcohol and pollution and are therefore prone to poorer health
- They will generally be unable to afford expensive luxuries
- The may overvalue the chance of large increases in income over more certain small increases, believing that very large increase in income will produce very large increases in happiness. This results in a culture of gambling, whether this be legally sanctioned as in the lottery or illegal as in crime
- Having fewer financial, educational and material resources means movement to the higher levels is always difficult although not impossible.

Those on the upper slope (**C*onsumers***) are higher paid and more highly skilled or trained. Their characteristics are:

- Increases in income produce smaller increases in happiness
- They have access to more choice and more information, and therefore greater economic and political power
- Have more than adequate resources for necessities so are more willing to pay for expensive luxuries with high profit margins
- Generally more likely to be aware of the true relationship between income and happiness, so as a group are less likely to overvalue large one-off financial gains or take high risks to obtain them
- Having access to more resources, tend to stay on upper slope

It is important to bear in mind that these characteristics will not apply wholly to all members of each group, that many people belong to more than one group, and that other factors modify the tendency to respond in the described ways. To have a chance of predicting some, but by no means all, outcomes, it is sufficient to state that large numbers of each group will be likely to show, given a particular set of economic circumstances, a tendency to respond in a particular way *relative* to the other groups. This is further explained below.

The ***Consumers*** group contains a large sub-group of ***Investors*** (comprising managers and shareholders, including members of pension-funds etc) who gain from the tendency of ***Workers'*** labour to be undervalued in relation to money and consumers tendency to pay 'over the odds' for goods and services because they undervalue more basic labour and materials in comparison. To maximise profits requires a particular balance between those on the lower and upper slopes. If all are on the upper slope, profits from low labour costs and personally harmful products would be lost. If all are on the lower slope profits from (non-addictive) luxury items - overvalued compared to necessities - would be lost from those whose money needs to be used for more essential items. The ***Investors*** group gains profits from the value gaps that arise.

We could postulate that the further away ***workers*** are from the break point, the greater the profit to be gained from cheap labour and the further ***consumers*** are far from the break point the greater profit to be gained from manufacturing and/or selling expensive luxury goods or leisure services. Irrespective of the total income of population it may be in the interests of *maximising profit* to maintain or exaggerate inequality of income.

The ultimate and most efficient consumer service is likely to be that of simply managing consumers' excess reserves of money, since this involves the minimum of labour and the maximum of overvaluation, since money is intrinsically worthless and costs very little to produce and even less to move around. Thus if income inequality is increasing we might expect to see the increasing activity of banks, financial services and stockbrokers, to deal with the rising tide of **consumer’s** spare cash.

Non-linear relationships

As described above, some individuals fall into one or more groups. I believe that the existence of these different groups and the ability of individuals to belong to more than one at any one time and to move between them is the reason why much of economic forecasting and manipulation is so unreliable using current orthodox economic theory. The aggregate effects of changes which may affect each group's behaviour in very different ways are almost impossible to predict since the size of each movement, not just its direction, would have to be known to guage the overall direction of even such important outcomes as inflation and unemployment. The ‘non-linear’ nature of this relationship has been well-described by such economists as Brian Arthur of the Santa Fe Institute[1] and Paul Ormerod in his somewhat overdramatically titled book *The Death of Economics*.[2] It can only really be possible to make sensible predictions of the outcomes of particular external economic changes when the effects on all three groups are moving toward the same outcome.

There are other factors which will affect the responses of each group to such variables as income and price levels, not always or even often predictably. Important factors include the current level of unemployment, the existence of adequate welfare provision for those without work and the degree to which persuasive advertising outweighs more objective information to increase the perceived value of consumer goods and services above the materials and labour actually required to produce them.

Extrapolating from the Model

Let us now extrapolate how we might expect our three groups (considered separately for the sake of clarity) to react to a particular change in economic fundamentals. Economics is primarily about the distribution of ‘scarce’ resources (human and material) between individuals. The total amount of material and human resources to which we have access at any point in time is finite and cannot be altered by human action. Equally the fundamental characteristics of human beings do not change much over time. Yet the means by which

[1] Arthur W B Inductive Reasoning and Bounded Rationality *American Economic Review, (AEA Papers and Proc.)*, 84, 406-411, May 1994
[2] Ormerod P. The Death of Economics. *Faber and Faber*; London 1994

resources are allocated to particular outcomes and between individuals is very much open to alteration by human action, indeed to an effectively infinite degree. Within our present economic system, usually described as 'free-market capitalism', how this is done depends on relative valuations of different resources and outcomes in money terms. So it would seem reasonable to look closely at the effect changes in money could have on our groups.

Although money is the means of distribution and allocation and this is generally regarded as its primary purpose it has over time required the convention of value in itself, which in reality being nothing but paper and ink or numbers in a computer database, it does not have. Its 'real' value can never be greater than the sum of all available labour and materials and thus it can only have value if there are goods and services available to be exchanged for money. Yet because of its 'convention' value total *perceived* available wealth actually appears to be greater than this. And the amount of money an individual has access to will determine the way in which he or she values goods and services in terms of that money.

The Perception of Wealth

One might show this relationship as one of **under-valuation of real goods and services** by the following expression:

$$\%\text{Undervaluation} = \frac{\text{Perceived Available Money Value } (PAMV)}{PAMV + \text{Perceived Available Labour and Materials Value } (PALM)}$$

> **where *PAMV* = the value an individual gives to all money he or she may have access to directly, or indirectly through borrowing (taking into account the cost of such borrowing to him/her);**
>
> **and *PALM* = the value in money terms an individual gives to all labour and materials he/she may have access to**

Let's look at how this relationship affects the outlook of our different groups - ***Workers***, ***Consumers*** and ***Investors***.

Workers, having little access to reserves of money, will generally have a low ***PAMV*** so they tend to give labour and materials a relatively high value. They may work for low wages if it is fulfilling work or necessary for survival but may opt not to give their labour away if there are alternatives, legal or illegal. They will tend not to pay 'over the odds' unless persuaded to do so by effective marketing or advertising, or the creation of addiction, since this has a significant effect on their ability to purchase other items which can significantly improve their lives. Unfortunately, their relative lack of information, education and choice makes them more susceptible to advertising, marketing and manipulation.

Consumers generally have better access to surplus cash and therefore have a higher ***PAMV*** with the result that labour and materials are relatively undervalued. They already have access to those items which are important to their well-being. Paying 'over the odds' is therefore less damaging and may be consciously or subconsciously accepted as required to maintain business profit margins (from which in any case most consumers apparently benefit through their investments).

Investors, with their ever-growing money reserves will have increasingly extensive ***PAMV*** so that for them the relative value of labour and materials becomes so much smaller that for some this undervaluation may approach 100%. In this situation exchange of money for money by financial speculation can seem a positive exercise despite there being no possibility of overall human benefit whatsoever - not even for the investor him/herself who already has more money than is required to fulfil any possible real human need.

The total perceived value of labour and materials (***PALM***) within a local or national economy may, of course, be altered over time by an increase in the workforce, more available materials or increased productivity of either labour and/or materials through innovation. Such changes are not generally directly observable by ***Workers*** or ***Consumers*** except eventually through price changes or lay-offs, but it is more obvious to those that are primarily ***Investors*** by whom it is used mainly to boost profits and/or increase the perceived value of their business or investments. Any increase in human well-being, or indeed harm, is usually incidental to these aims.

The Benefits of Stability

Despite the difficulties outlined above, however, if other economic variables remain stable, generally over time movement of individuals between groups and experience and dissemination of information among and between each group might be expected to reduce the degree of misvaluation of labour and materials, and increasing productivity through innovation to eventually reduce the real prices of most goods and services important to human well-being. The consequences of this would seem likely to be a gradual predominance of human values over money values and a consequent gradual decrease in inequality of lifelong human potential. But, in the UK, as in other advanced capitalist countries other economic variables cannot remain stable because the most important one of all, the amount of available money in the system, is not stable.

The Rising Tide of Money

What is important to perceived money value is not simply the amount of money circulating as notes and coins but also all money held in bank and building society deposits. This amount (referred to by economists as **M4**) is constantly increasing - in the UK by an average of 10% per annum over the last 15 years or so - as banks and other lending institutions make new loans. From 1982 to 1995 the amount of money in the UK economy has quadrupled. Yet this increase in money has failed to be accurately reflected in National Income (Total Personal Income, Profits and Rent) or in the Retail Price Index (which is a guide to the **Worker's** and **Consumer's** view of the relationship between **PAMV** and **PALM**.)! (**See Figure 3**) How can this be explained? Let's begin by looking at the effects the rise in money has on our Investors, Consumers and Workers respectively.

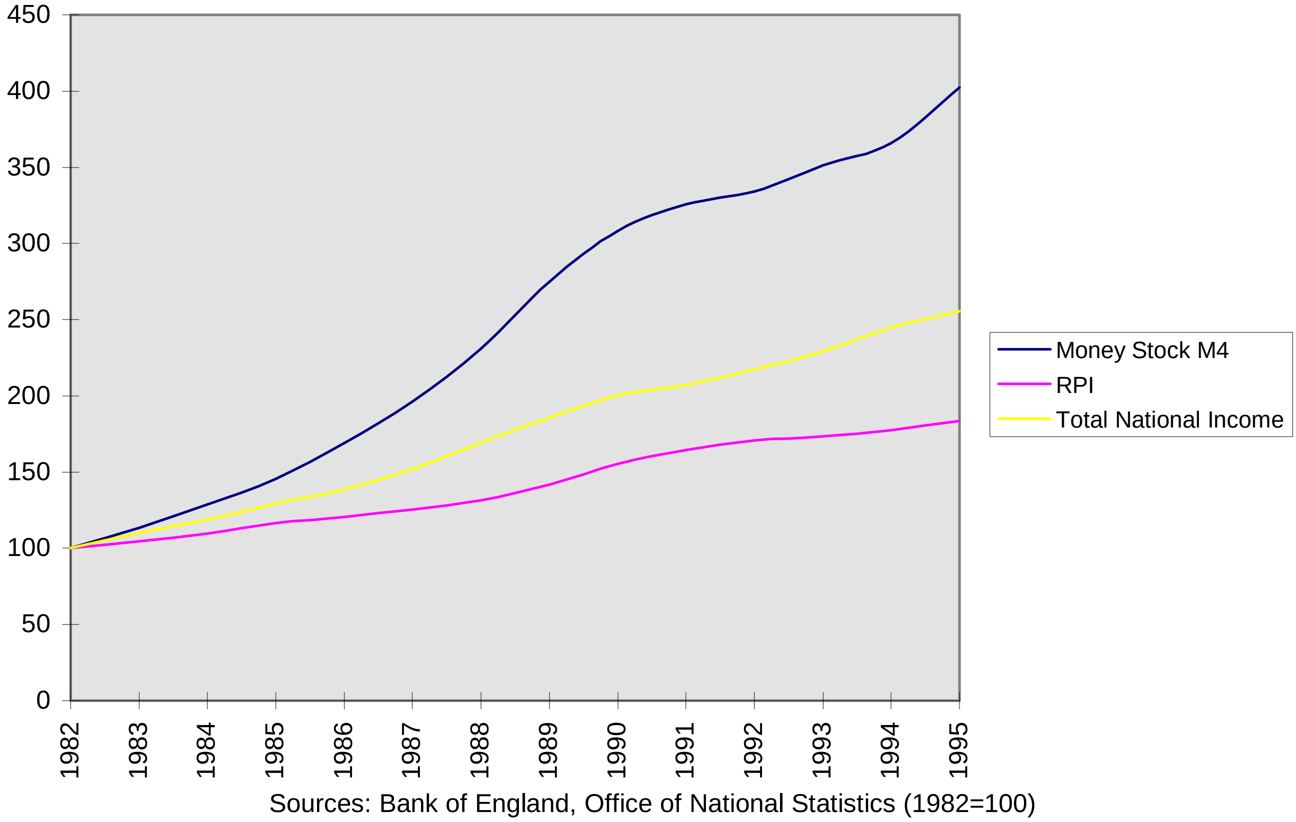


Figure 3. The relationship between the money stock, national income and the RPI

Investors have the greater access to the new money and therefore can profit directly by making loans, by selling other financial ‘services’ which require large reserves of money and indirectly through gaining control of material and labour resources. As the money stock increases so does their level of undervaluation of labour and materials with the result that there is likely to be a tendency to discounting the value of human skills, to consuming more natural resources and exceeding the environment’s capacity to absorb pollution. This in turn increases the tendency to cost-cutting and ‘down sizing’ of labour and/or material intensive operations and moving into services, especially financial services, rather than manufacturing. There is a gradual shift from investing in labour and materials to either holding cash in interest bearing accounts or converting it into easily convertible and transferable investments such as equities. The unique quality of such securities is that as their market ‘convention’ value is already almost completely divorced from use value this can rise indefinitely as long as people have surplus money to pour into them. This in turn raises the value of securities already held without producing any extra use value whatsoever.

Most of the new money created simply circulates, increasingly slowly, between already cash-rich ***Investors***. The rate at which money circulates - referred to by economists as the ‘velocity of money’ - falls because as ***Investors*** have increasingly less need to obtain yet more money they tend to concentrate on safety. Increasingly directors of the largest companies, seeing little purpose in simply ensuring long-term steady profits which they are unwilling to invest in labour or materials, aim to increase their personal status and prestige by acquisitions and mergers which further increase the size of their companies without genuinely improving their profitability or returns to shareholders.[1] The most frequent definite consequence of such operations is to increase unemployment in the guise of 'rationalisation'. Since a lower proportion of money has been used to purchase labour or materials, this should explain why National Income fails to match the rise in money supply. Since only a small proportion of the extra money escapes to be spent on the household items included in the Retail Price Index, this too lags behind.

Consumers may gain or lose overall. If they are significant investors as shareholders, pension fund holders etc they will probably gain overall but they may suffer from the shift in priorities of the investors. The incomes of those who stay in employment and have skills relevant to these new priorities, or have the flexibility to acquire them, will tend to increase behind the rise in profits. This combined with greater access to credit for them too, pushes retail prices up. Since consumers do not lack essentials, as well as spending more they can also save an increasing amount (encouraged by the blandishments of the growing financial services industry), further reducing money velocity. Although falling money velocity is associated with rising inflation, this is partially disguised by the fact that the rate of saving is increasing, diverting the extra money away from items on the Retail Price Index.

For **Workers** it is all downhill. Their skills are increasingly irrelevant to the Investors. Unlike most Consumers they lack the resources to easily acquire the necessary new skills. Any rise in prices affects their ability to obtain essentials, yet they cannot easily reduce their demand. Their power to increase wages is distinctly limited unless they are part of a strongly unionised workforce with effective powers to back up negotiation. Even then the best they can expect is to get rises in line with the Retail Price Index which, because it fails to keep up with the rise in money stock, leaves them with relative income, purchasing power and social influence reduced in comparison to both investors and consumers.

The Business Cycle

Eventually the rise in prices and salaries, and wages to a lesser extent, start to bite into profits and further cost-cutting and lay-offs occur, as investors' confidence in more labour-intensive businesses wanes. If the ability to obtain loans at the height of the money-stock rise was greater than the ability of firms to achieve the profits to service them then losses, contraction and unemployment results. Inevitably it is the Workers who suffer most as a group, since their labour is undervalued, their resources low and their purchasing power appears less important to the economy.

Eventually overall spending power falls far enough to bring down prices and the cost of labour to start business investment increasing again and the cycle starts again. Only this time the mind-set of the investors and consumers and workers has been subtly altered by their experiences and by the increase in inequality. Workers' expectations are lowered by unemployment, Investors switch even more to services and financial businesses rather than re-opening closed factories. Consumers' money tends to follow the Investors. As the cycle ebbs and flows there is an ever-widening spread between the rich Investors, the comfortable

[1] All fall down. *The Economist*, February 28th 1998, p81.

Consumers and the poor Workers; there is reducing capital investment in labour and materials and there is a continuous shift of business activities from the ‘real’ economy to financial operations, whose profits inexorably increase. As this happens access to the diminishing pool of trained labour and to material resources requires increasing amounts of money, resulting in further increases in the ‘real’ wealth of the rich along with their money-wealth and the further impoverishment and loss of resource access for the poor.

Relationship with Government

There are also parallel changes in the relationship to government transfers, as the money stock rises. Those with money increasingly value it more than labour and materials so want to hang on to their money - and not pay high rates of tax - tending to discount the value of the services received in exchange such as public health, education and welfare. Since the rich, through control of resources and information have disproportionate influence on government this results in a failure of the funding of such services to keep pace with the expansion of money and a widening gap between what the affluent will pay for services for their own use and the services that can be provided for the community as a whole.

How this relates to conventional economic thought

J M Keynes suggested that government borrowing and spending (thus increasing the money stock) would result in the purchase of more corporate bonds, raising their price and lowering their effective rate of interest. This would have the effect of encouraging increased investment *before* prices started to rise. This might be true but the difficulty here is that those who have access to the extra money belong to the ***Investors*** group, and they become increasingly less likely over time to invest in natural resources or human labour and skills. Indeed corporate bonds are now an uncommon form of funding, having been replaced as an investment vehicle by equities, whose overall rate of return is much less directly influenced by the real performance of the company in whose name they stand.

Milton Friedman and the monetarists believed on the other hand that once increases in the supply of money had raised prices, wage adjustment would result in output falling back to its original level. Again this would appear to be true but ignores the differing effects of price rises on ***Consumers*** and ***Workers***. ***Consumers*** have much more power to adapt their consumption and salary levels to adapt to the new conditions and maintain the value of their income in ‘real’ terms. But for ***Workers***, this is much more difficult and they risk finding themselves out of work altogether with poor prospects for re-employment.

Six Hypotheses

The foregoing exploration of the theoretical consequences of the rise in the money stock reveals certain trends that seem to develop across the different groups as a whole and so illustrates a situation where despite the caveats mentioned earlier it is possible to make suggestions as to consequent effects. If the money supply increases faster than the overall perceived value of labour and materials (***PALM***) it will result in the following trends over successive business cycles irrespective of intermediate fluctuations in inflation and unemployment and unexpected 'shocks'. (Although these almost always have the effect of speeding up the pre-existing trends.) National Income, which I shall use to represent ***PALM***, is regarded by many as an overestimate of the growth of 'real' value in the economy, as it does not take into account reductions in environmental and social capital. As far as I know no-one thinks it an underestimate!

1. **Income inequality will increase**

2. **Unemployment and/or underemployment will rise**

3. **There will be a shift from manufacturing to services, especially financial services**

4. **There will be reduced levels of direct capital investment in labour and materials relative to profits**

5. **Levels of public health and education funding will fail to keep pace with private sector equivalents**

6. **There will be increasing investment in cash and equities with a falling velocity of money circulation**

In the following sections I shall examine each hypothesis in turn by looking at trends in the UK economy over the timespan 1975 - 1995 or shorter periods within it in relation to Money Supply (M4) growth. It is of course important to remember that within this period many restraints to the pattern I have outlined above were removed. The most important of these being:

Removal of Exchange Controls - increased the exposure of the UK economy to external sources of money and influence.

Privatisation - has had the effects of allowing shedding of workers, lower pay and poorer conditions without democratic accountability. Has also increased the number of equities and equity transactions.

Reduction in Union Rights - has had the effect of making it easier to dictate terms and pay-rates using the threat of redundancy.

Although they played a permissive role in the changes that occured in this period and made the nature of the process clearer, I do not believe that they on their own were the driving force behind them.

Section 2 - Testing the Hypotheses

Hypothesis 1 - Income inequality will increase

That the perception of widening inequality is confirmed by the facts as illustrated by **Figure 4** which shows the relative shift of the median incomes (the income level dividing each group in half) of each tenth of the population compared to the contemporary level of average earnings. This actually demonstrates that only the top 20% of the population have improved their earnings level relative to the average over this period.

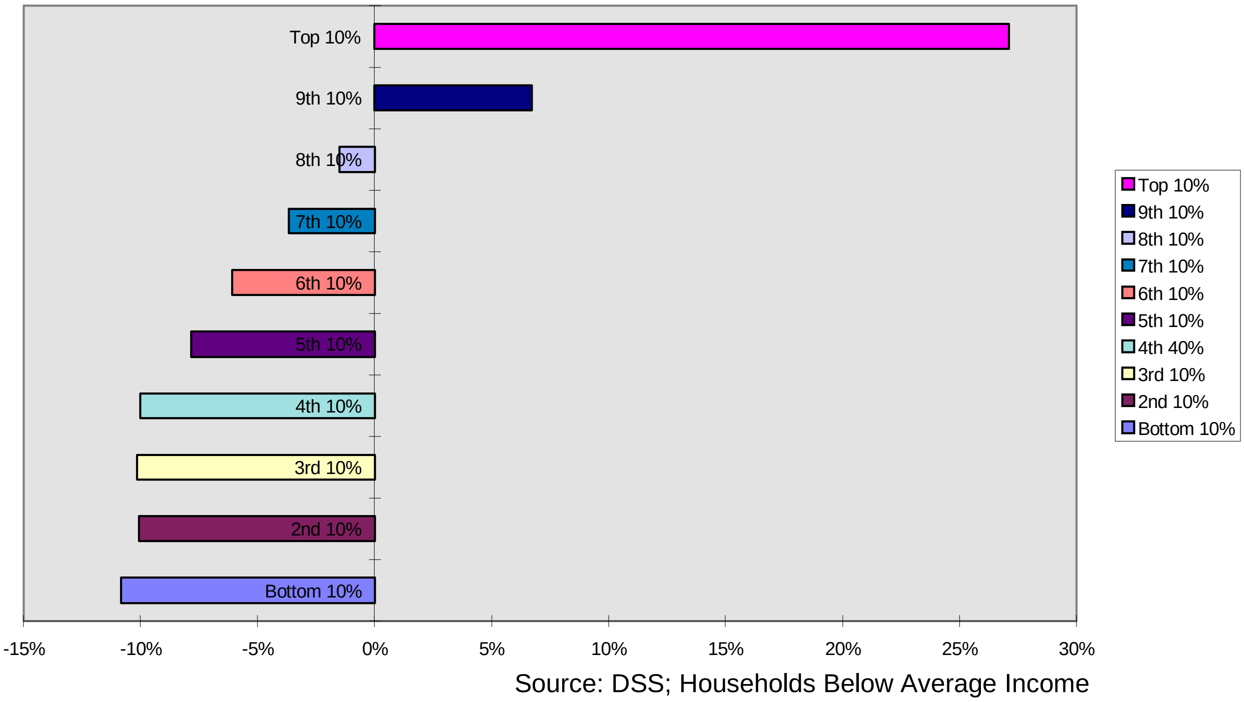


Figure 4. Changes relative to average earnings of decile-group medians 1979 - 1993/94 (adjusted for household size)

Hypothesis 2
Unemployment and/or underemployment will increase

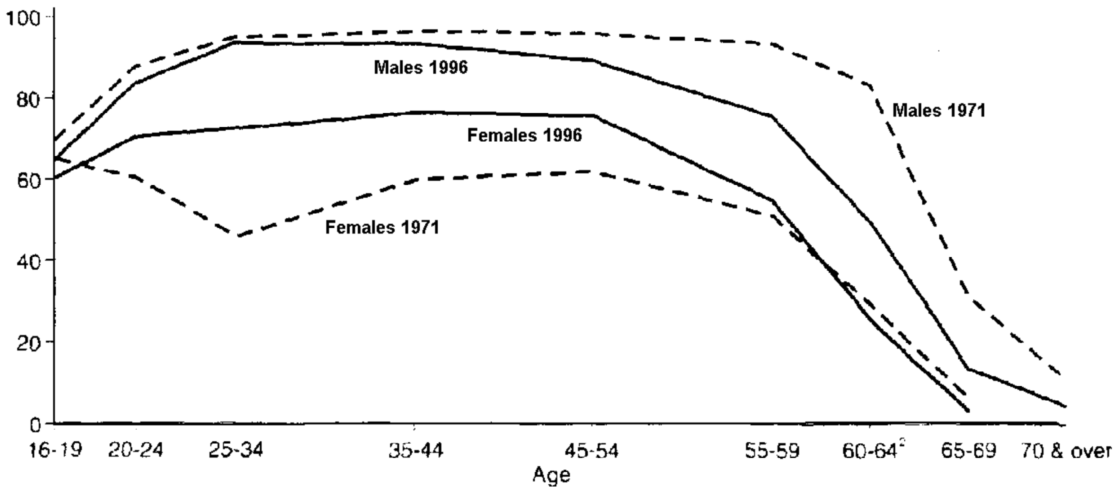
Unemployment rose above 5% for the first time since World War II in 1979 and seems unlikely to return below it in the foreseeable future. (**Table 1)**

	1974-79	1980 -85	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Claimant Rates (%)	5.0	10.5	11.1	9.9	8.0	6.2	5.8	8.0	9.7	10.3	9.3	8.2	7.5

Source: ONS, Labour Market Statistics

Table 1. Unemployment Benefit Claimant Rates 1974-1996

It is now generally accepted however that official claimant figures do not tell the full story. **Figure 5** shows the underlying pattern of change.



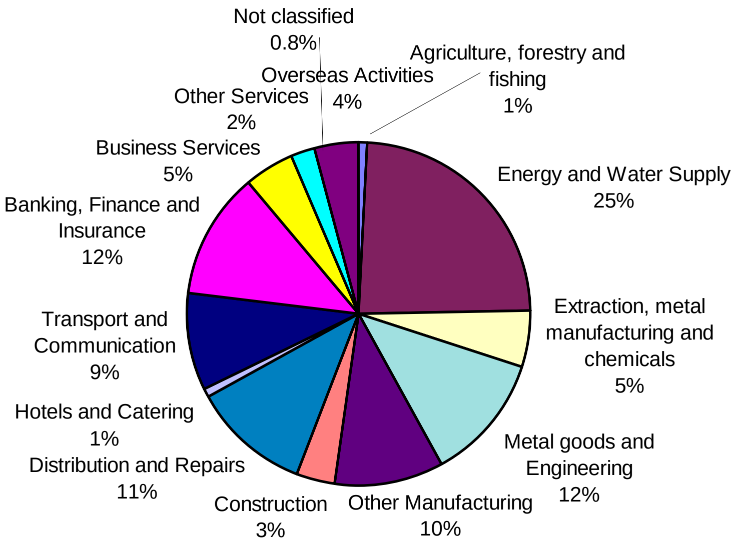
Source: Census and Labour Force Survey, ONS

Figure 5. Economic Activity Rates: by age and gender, 1971 to 1996

This shows firstly that many more woman have come into the workforce (of whom over 40% are part-time workers) and secondly that more men are economically inactive, particularly after the age of 40. Of economically inactive men around 30% are students and around 50% are long-term sick or disabled. Of the latter group there is much evidence that many of them would like to work if suitable work was available.

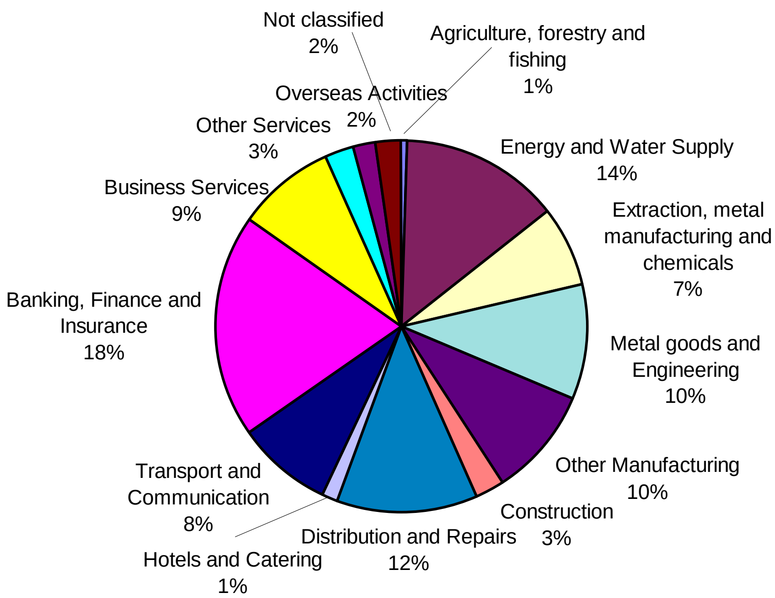
Hypothesis 3
There will be a shift from manufacturing to services, especially financial services

There are various ways of looking at this, but many are confounded by other factors such as changing income distribution and levels of employment. Share of total corporate profits over the period would seem to be the best guide to how the control of resources, including money, is shared.



Source: Inland Revenue Statistics

Figure 6a. Sector shares of gross corporate profits 1982



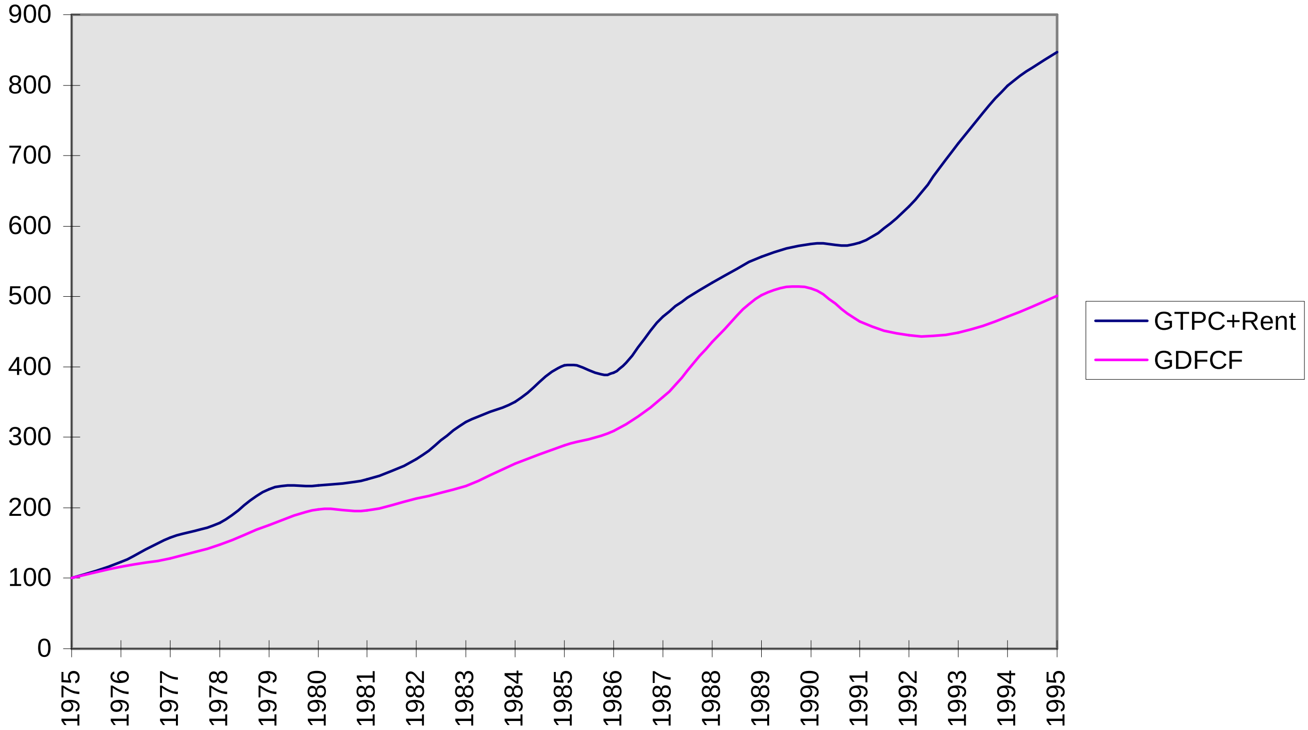
Source: Inland Revenue Statistics

Figure 6b. Sector shares of gross corporate profits 1995

Figures 6a and 6b suggest that the expected shift occurred. As the contribution from North Sea Oil and Coal has decreased, the largest increases in profits occured in Banking, Finance and Insurance and the Business Services sector while the materials or labour intensive sectors remained static in relative terms. Evidently 'Business Services' companies are much more successful at achieving greater profits for themselves than the companies they sell their skills to!

Hypothesis 4
There will be reduced levels of direct capital investment in labour and materials relative to profits.

Figure 7 shows the relative changes in total profits, corporate trading profit and rents (GTPC + Rent) and Gross Domestic Fixed Capital Formation (GDFCF), the value of new investment by government, personal and corporate sectors in buildings, plant, machinery etc in the UK which is expected to realise ongoing profits or benefit and therefore not counted as revenue expenditure. The value used here does not take depreciation into account. The graph confirms a persistent fall in the rate of material investment from 1975-1995 relative to all profits. As predicted this trend is markedly exaggerated after the 1989-92 recession, despite a return of profits to the overall trend rate.

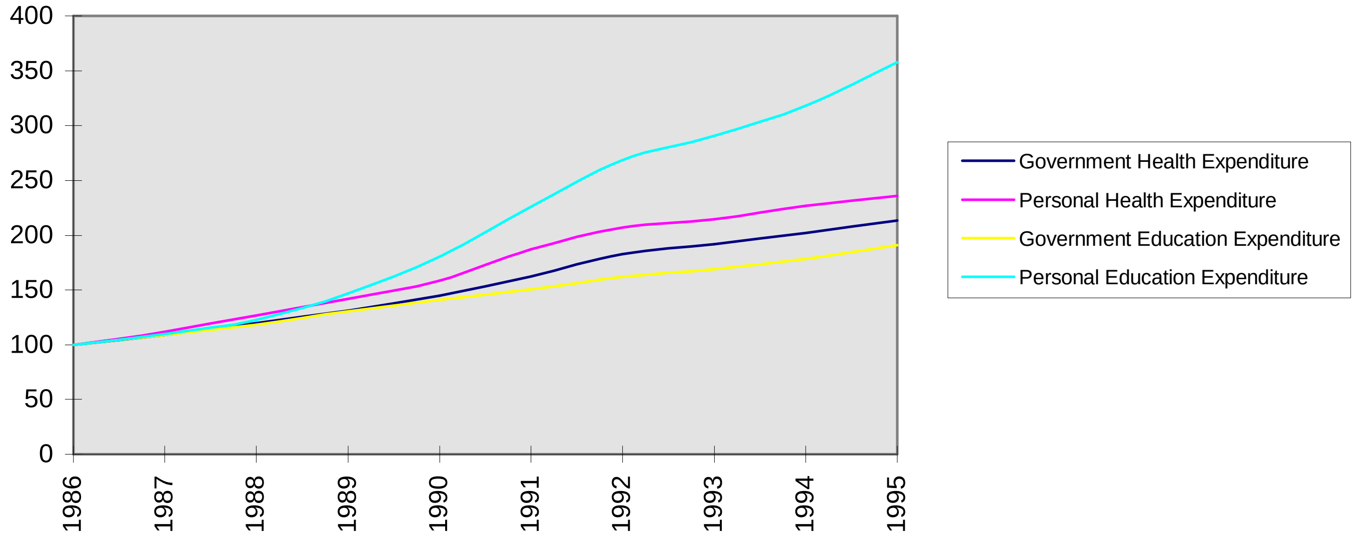


Source: Office of National Statistics (1975=100)

Figure 7. Gross Profits and Fixed Capital Formation

Hypothesis 5
Levels of public health and education funding will fail to keep pace with private sector equivalents

Figure 8 shows how real demand for healthcare, as demonstrated by the willingness to pay for it by those with the resources to do so, has moved ahead of the increase in government funding. Electoral pressures have presumably reduced the divergence to some extent. Even more dramatic is the way in which public funding of education has lagged behind real demand of those with the economic power to pay for it.



Source: Office of National Statistics (1986=100)

Figure 8. Relative Trends in Expenditure (Government Education Expenditure excludes grant transfer payments)

Hypothesis 6
There will be increasing investment in cash and equities with a falling velocity of money circulation

Figure 9 shows how the rate of growth of the money supply is closely related to the velocity of circulation of money. The fall in circulation rate explains why national income (the aggregate of total personal incomes and profits in the UK) lags behind the growth in money. This means that the money must be being held longer by somebody. Since income growth and profit growth is increasingly skewed to those who are likely to be cash-rich this is perhaps unsurprising! The evidence suggests that it is increasingly concentrated in the hands of those closest to its formation. Rich individuals and banks have so much money that they don't know what to do with it and most of it presumably passes through the Stock Exchange! The total value of all securities quoted rose from £1.2 trillion to £4.1 trillion between 1986 and 1996![1] Yet in 1995 there was only £623 billion in all the bank and building society accounts in Britain.[2] So watch out for that crash!

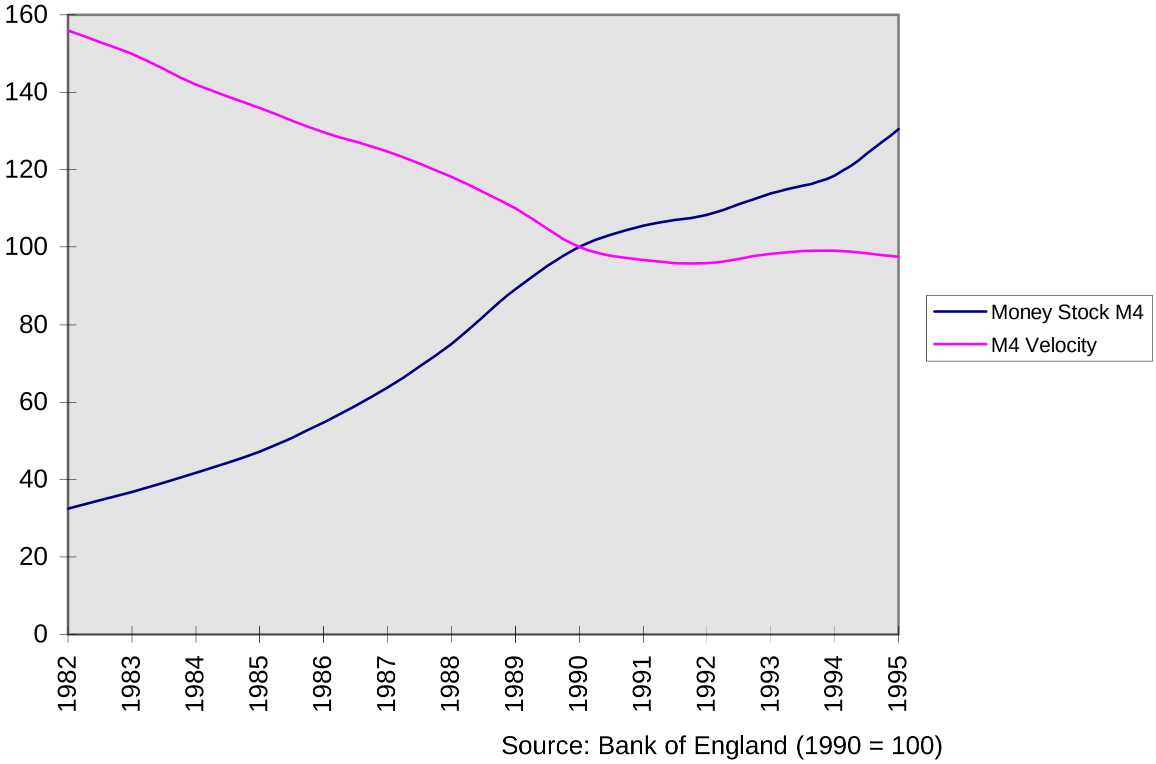


Figure 9. Money Stock (M4) and its Velocity of Circulation

[1] Annual Abstract of Statistics 1998, Table 17.15. ONS
[2] Annual Abstract of Statistics 1997, Table 17.8. ONS

Section 3 - Looking to the Future

Future Trends

The money supply has been rising rapidly, with falling velocity of circulation over the last 3 years or so. Gross Domestic Fixed Capital Formation is failing to keep up with profits. It seems that a substantial proportion of the extra money being created is going into the increasingly febrile Stock Market. These trends seem likely in time to lead to increasing unemployment, inequality and further reductions in the valuation of and investment in labour and materials. This in turn is going to cause increasing pressure on public services. The present Labour government in Britain are presently trying to limit the effects of this by diverting money from the newly privatised utilities' profits to extensive employment and training subsidies, establishing a minimum wage and re-instituting some employment rights. They have expressed the wish to improve education standards and rationalise the National Health Service but must try to do this without significant increases in public spending, so have limited scope. Other measures such as giving the Bank of England the role of setting interest rates independently, and reducing reliance on government borrowing can have a small effect on reducing the advantages of those currently holding economic power. However it will be seen that none of these measures curtail the pressure of the money stock rise or the tendency to undervaluation of materials and labour that must follow. Further steps will clearly be necessary to deal with this.

What can be done?

As a start the growth in money must be effectively curbed. The only way to do this is to insist that all loans are fully capitalised, that is to say that banks and other lending institutions are no longer able to create new assets when they make loans, but must switch from other assets such as equity investments, or obtain new deposits. This will have major consequences:

1. Bank profits will fall dramatically, since their assets will be much less flexible, and they will lose the profits on new loans. This should not concern us too much. They don't earn these extra profits, they just print them! As these activities are curtailed many able individuals will be forced to find more socially useful employment. Banks will still continue to exist in their role of guarding money and distributing it from those that have more than they currently need to those who have less than they currently need but have the potential to obtain more in the future. Modest charges, as interest rates, could quite reasonably continue to be charged to cover administration, risk and some degree of service development. The value of the Stock Market would plateau and then decline, although not necessarily precipitously, until the value of shares was more closely related to an accurately perceived valuation of corporate output - in terms of financial and other criteria.

2. Loan finance will be of course be more difficult to obtain. This means that to survive enterprise must become based more on access to human and material capital and less on money capital. Since these real assets continue to exist, this requires no more than changes in attitude and business practice. Instead of businesses borrowing money capital they would move to areas of high unemployment, develop skills, provide fulfilling work and obtain modestly paid labour in return for a genuine stake in the business and consequent added security. They would utilise natural resources that would otherwise be underused or

wasted, or even actually reclaim such resources. A major role of government at all levels will be to facilitate the matching of labour and material resources in this way, probably using a sophisticated computer network. This network could also be developed to allow extensive payment in kind using transformable credits, which could not be accumulated in the way that money presently can be. One area of concern may be that **Investors** will remove their money altogether from business investment, yet this need not automatically be so, if it is borne in mind that as described in (1) the main alternative destination for their money, the Stock Market, must fall, its value being almost completely fuelled by the rise in the Money Stock.

3. Money profits will fall generally, due to the reduced mobility of capital. This means that business development will increasingly rely on human and material investment rather than money. This in turn will require businesses to gain participation and commitment from all employees and shareholders. To achieve this will inevitably require more equitable distribution of remuneration and greater workplace and shareholder involvement and democracy. This in its turn is likely to result in businesses becoming more 'holistic' in their objectives, producing social and environmental capital that far exceeds the real value of the money capital formerly produced. Government will again have to take the lead in encouraging and enabling this to occur by appropriate changes to the rules of business structure and corporate governance.

4. As the perceived value of labour increases, wages of **Workers** will tend to rise spontaneously compared to **Consumers**. Since new money is not being created, there will be redistribution of the now limited money stock. However this redistribution will not occur through the unwelcome offices of the 'State' but as a result of a view of reality now undistorted by money's unchecked growth. **Investors**, will see the financial value of their money and 'near-money' (eg: equities) assets decline, but the value to society (including themselves) of all 'real' assets rise. The immediate payoff for **Consumers** and **Investors** is reduced anxiety over the consequences of loss of that status and reduced defensive expenditure on the consequences of social deprivation, pollution, traffic congestion and so on. The less immediate payoff is that more human ingenuity and human resources are now aimed directly at improving the human condition rather than lining the pockets of a few **Investors** and ameliorating unsightly pockets of human decline. Faster, more effective and sustainable *real* human growth and development must result. This is essential if problems such as Global Warming, perhaps especially if we cannot avoid it, are to be tackled without serious consequences for all.

5. Because **Workers** lack bio-psychological essentials, most of their increased share of the available money will be *spent* rather than *saved* resulting in an increased velocity of money. As they will now be buying manufactured functional items they were previously unable to afford this should stimulate production rather than raising prices. In conventional economic terms the Unemployment/Inflation Curve will have been shifted, reducing both! The greater commitment of workers to the businesses in which they work, and the greater perceived value of non-money items should also reduce the inflationary pressure usually expected with 'full' employment.

6. For the longer term a global effort should be made to reduce the importance of transferable money in the allocation and distribution of resources, since its existence is a prime cause of the tendency to undervalue human potential and the material environment. In time, perhaps advanced Information Technology could provide a system which would record convertible credits for goods and services produced which did not persist once they had been used. In this way there would be no ‘money value’ existing separately and apparently additional to real human and material value. Such a system could also be used to allocate a minimum level of needs to every citizen, while maintaining freedom to obtain surplus credits through personal labour and exchange them in ‘free markets’. An essential part of the system would be that credits would always have to be denominated in some really existing item, and could never represented ‘undifferentiated value’. This would eliminate the possible existence of the M-C-M (Money-Commodity-Money) path, which Marx identified as leading to the exploitation of human labour. Contrary to the likely arguments of the political right, Investment and Risk for Innovation would persist, but would now be in its true human and material form, undisguised by its blander money representation. Because the risk/benefit equation would now be much more directly relevant to these investors, whether individually or as a group, any project carried out would have to have clear overall benefit to all those involved, at whatever level.

Conclusion

The measures suggested above may sound utopian, but to stand still is not possible without tremendous expenditure of effort simply in resisting the overwhelming pressure toward increasing inequality, social division and perhaps ultimately open conflict between rich and poor, even in the developed world as it is currently manifested in the third world. In reality we must choose between this unpleasant scenario or a process of increasing equality of lifelong potential, with all the benefits for human development this could bring.