

# INVESTING IN CIVILIZATION: THE SCIENCE OF CREATIVITY, THE FUTURE OF SOCIETY, AND THE EXIT FROM ECONOMIC CRISIS

Alan Freeman, Winnipeg June 15th

This paper is about the Creative Industries. These are often called the Cultural Industries but the difference is the source of some tension. The Creative Industries are a modern economic phenomenon, a product in a real sense of the internet age, a fast-growing commercial sector of the economy in which design and aesthetic content are found in a symbiotic relation with the skills of Information, Communication and Technology or ICT, these playing a special joint role I think is inadequately understood. The purpose of this paper is to draw the attention of the economics profession, including its heterodox currents, to the central importance both of this new area of the economy for the future of world economic and social development, and of the theoretical challenges that it presents.

I build on a wealth of research, and I acknowledge the contribution of the Greater London Authority, Queensland University of Technology, the English National Endowment for Science, Technology and the Arts (NESTA) and the British Ministry of Culture, Media and Sports, who have to a large degree adopted the approach which he above researchers jointly presented in a key paper that NESTA has recently published (Bakhshi, Freeman and Higgs 2013; see also DCMS 2013).

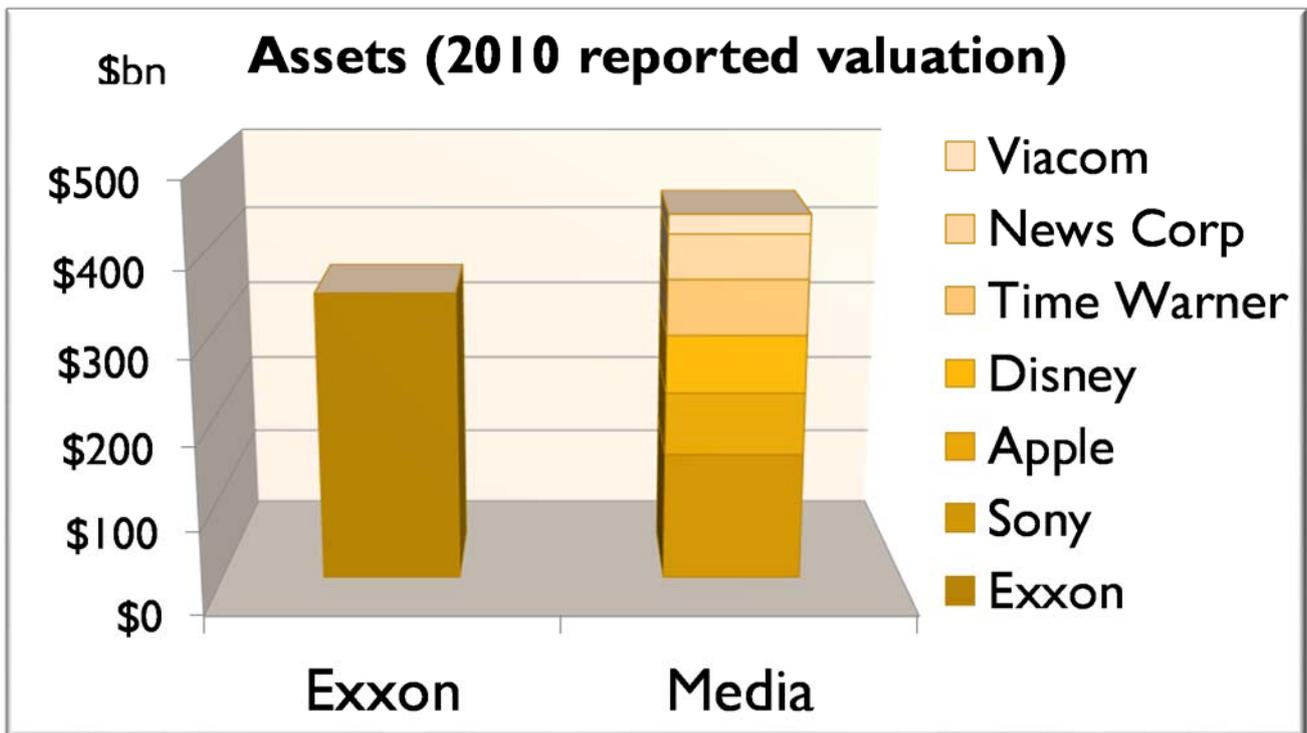
I draw on a lecture series I gave at Tsinghua University, Beijing, as well as numerous discussions with Radhika Desai. I thank the World Cultural Audit project now with fifteen cities worldwide involved, the majority of which are from Southern countries. I particularly thank the Department of Design at the Autonomous University of Mexico (UAM) who brought me to Mexico last December to some exciting discussions about Mexico's Design and Creative industries, and to Heinz Dieterich and the organisers of the 2013 'Vanguard Conference on Science and the Economy'

The research mentioned above demonstrates that the Creative Industries are now one of the fastest-growing sectors of the advanced economies. By 2010, one Londoner in every five was working either in a creative industries, or creatively elsewhere. These industries account for over six per cent of the GDP of the UK and probably a quarter of London's, exceeding all other traditional industries except business services, education, and health.

The creative workforce extends well beyond these industries. There has been a generalise rise, noted under many headings like 'soft innovation', 'high-end value-added', 'content industries' and so on. These are industries and companies where *design* is the primary input and aesthetic *content* is the primary source of demand. The most startling recent development was when Apple became the largest company my market capitalisation in the world. But even then, the seven 'media conglomerates' had, as shown in Figure 1, a total asset stock greater than that of Exxon, at that time the biggest company in the world.

And these media companies are only part of the creative industries as a whole.

FIGURE 1: ASSETS OF THE SEVEN LARGEST MEDIA CONGLOMERATES, COMPARED TO EXXON



Source note: all data and charts unless otherwise stated are taken from Freeman (2008). Where possible the data has been updated by the author

The creative industries consist of ten or so industries identified by the British and Australian governments, including Architecture, Advertising, Music, Performing Arts, Visual Arts, Fashion, Film, Video, Photography, Software, Publication, and Radio and Television. Actually there is a ‘penumbra’ of creative activity which extends far wider and is converting sector after sector that once consisted entirely in simple manufacturing into the producers of *objects designed to meet demand of a market that discriminates aesthetically*; the most obvious being the electronics industry where Apple, now the largest capitalised company in the world, is essentially a content provider first and foremost, and a gadget manufacturer second; close behind we find not only the car industry, but such unlikely candidates as the manufacturers of bathroom and toilet fixtures.

This new phenomenon is important for many reason that I can sum up by echoing a remark by Konstantin Zivkov (2013) which he made at the Moscow Economic Forum and repeated at the 4<sup>th</sup> Vanguard conference in Mexico: we face not just an economic crisis but a crisis of civilization. I will argue that these industries show us these two questions are completely and intextricably bound up together. This is because capitalism, as we know it, is incapable of realising the full potential of these new industries, yet their expansion is actually now an economic precondition of any sustainable exit from this crisis.

I begin with a quote from John Maynard Keynes (1933), famous as an economist but less so for his passion for the arts. He regarded this as the main goal of economics.

*We destroy the beauty of the countryside because the unappropriated splendours of nature have no economic value. We are capable of shutting off the sun and the stars because they do not pay a dividend. London is one of the richest cities in the history of civilization, but it cannot 'afford' the highest standards of achievement of which its own living citizens are capable, because they do not 'pay'”*

It is worth noting here the unique priorities for China enunciated by president Jiang Zeming in describing the three 'represents'; the tasks of the Chinese Communist Party. The first of these is build an advanced culture.

In my job as a cultural economist I was often asked to assess the economic impact of the art. I now reply that this is upside down: actually we need to know the artistic impact of the economy. Culture in its broadest sense is the real purpose of life. It is our species-being, as Marx puts it, that which makes us different from animals.

This is my first point. Keynes also made my second point in the same article.

*If I had the power today I should surely set out to endow our capital cities with all the appurtenances of art and civilization on the highest standards of which the citizens of each were individually capable, convinced that what I could create, I could afford – and believing that the money thus spent would not only be better than any dole, but would make unnecessary any dole*

Culture is not just the object of life but is *economically feasible*; it not an *alternative* to economic growth but a perfectly possible line of economic development.

To this I will now add a third argument: cultural development has now become *economically essential*. One of the primary reasons for the prolonged stagnation of the world economy is that we are on the cusp of a fundamental shift in the way the world economy is capable of growing, which *requires* growth to be oriented to the development of the cultural capabilities of humankind. Let me go through the reasons for this.

To begin with let's note that culture, in its broadest sense includes not only commercial and publicly-funded activity but all forms of non-monetary participation also. Properly analysed, it consists of every aspect of the reproduction of human society that has been driven out of the workplace by the modern industrial system, which is rooted in the *mechanisation* – that is to say, *de-humanisation* of labour.

We are now reaching the limits of this process. These fastest-growing sectors of the economy are precisely those in which *non-mechanisable labour* – which our research team terms 'creative labour' – is the major factor behind growth.

An entire epoch of expansion, which took off with the Industrial revolution, was predicated on the growth of mechanical or physical production – the deployment of things to produce things.

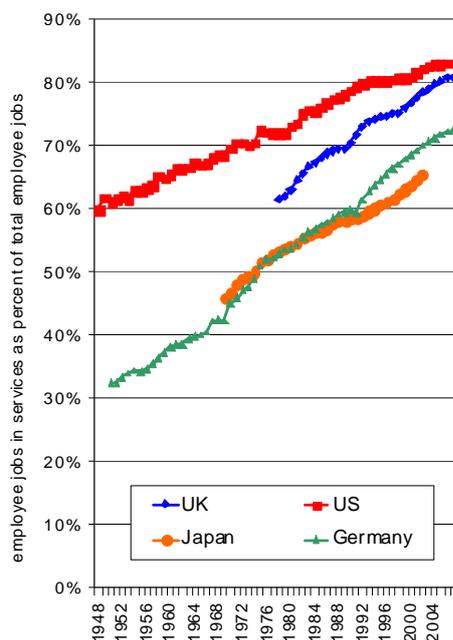
## THE ABSOLUTE DOMINATION OF SERVICES: A NEW STAGE OF ECONOMIC HISTORY

The economic potential of this ‘physical’ form of expansion, at a time when over eighty percent of human labour is to be found within services, is exhausted. To see this, let us look at figure 2.<sup>1</sup>

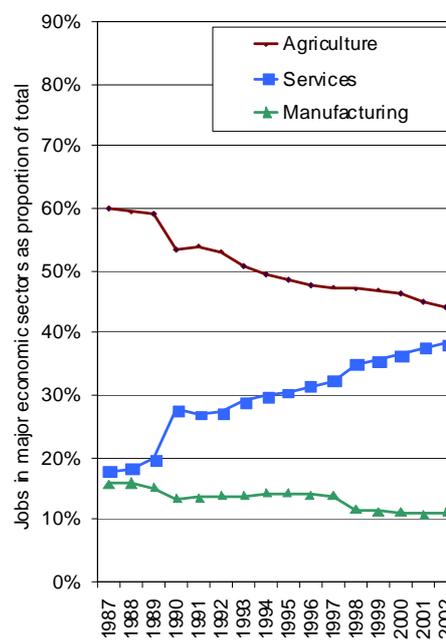
You will see that 86% of the labour employed in the US, and over three-quarters of the labour in the advanced economies, is now engaged in services. This is an inexorable and universal trend. Even in China, ‘manufacturing’ is employing less people very year and services were by 2002 employing 40% of the workforce.

FIGURE 2: SERVICE EMPLOYMENT

**Chart 1: proportion of employees in the service industries in industrialised countries**



**Chart 2: proportion of employees in major sectors, China**



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There was quite wide talk, twenty or so years ago, of a ‘post-Fordist age’ in which computers would take over everything, and the ‘information age’ would take over. These things did not happen. Yet the age of industry has not returned. We are in a new era, neither the ‘information age’ nor the manufacturing age. Things have simply not turned out as I will show however that the public and private side of the economy are linked together in a totally new way in the creative economy, which allows us to understand why the previous mode of growth no longer works.

Humanity can no longer ‘grow’ its economy by producing and accumulating of *things* –objects such as cars, houses, clothes – nor by revolutionising the *machinery* that is used to make them. Instead it

<sup>1</sup> In some cases, for reasons of time, I have not been able to update the data in these charts. In this case the original numbering in the report from which they are taken appears as part of their description. Apologies for any resulting confusion.

will have to focus on the spiritual, mental, cultural and artistic development of humankind to a degree so far unparalleled in history.

## THE BASIS OF A NEW MODE OF GROWTH IS A NEW MODE OF THOUGHT

No serious attempt has been made to understand or analyse this phenomenon. Our small but growing team of researchers have created a body of serious scholarly research to support the conclusions I will now advance: for this reason I have little hesitation in speaking of a new science of creativity.

This new science obliges us to abandon many old and tried modes of thought based on the mechanical, physical concept of the economy. It offers many well-grounded conclusions, which I consider hard to refute, to support my main conclusion that this mode of growth is now economically indispensable.

The first conclusion is quite trivial, but very widely ignored: any notion that a new phase of economic growth can be launched on the basis of revolutions in *material* productivity – such as those that have driven every wave of capitalist expansion to date – do not make sense. How can you transform a society by pottering around with something that less than 20% of the workforce of that society takes part in?

The second conclusion is that we must completely revise our understanding of the word ‘growth’ which is universally associated with the production of things by machines – which Radhika Desai and I call the ‘machinocratic’ view by analogy with the Physiocratic view that never understood manufacturing because it thought the land created all value. The Machinocrats don’t understand creativity because they think that machines create all value.

This leads to a real threat of exhausting the resources of the planet, which Hugo Salinas has referred to. In fact there is a general exhaustion of *all* resources, not just oil. The problem is not to substitute one material for another but what Marx Zwilling and his team call ‘resource-decoupling’ – to find ways of growing while reducing our use of materials. This is a perfectly practical proposition of which the creative industries are a prime example. We do not need to rape the planet in order to sing a song, stage a play, paint a picture, or write a poem.

From this true fact, some ecological campaigners draw a conclusion that a scientific analysis does not support: that the resources of the planet can be saved only if *all* growth is brought to a halt. To the contrary, the planet can be spared only if we evolve new forms of growth, namely those centred in cultural expansion – on the full and free development of all the mental and spiritual activities ‘of which we are capable’.

Sustainable growth and cultural growth are two sides of the same coin. *Only* if we grow in a direction focussed on mental and spiritual capacity can we steer society away from exhausting the planet’s resources. Conversely, *only* if we ‘resource-decouple’ can we support the cultural emancipation of humankind.

This new mode of growth – which is actually required to escape from the crisis, encounters a number of key obstacles. The creative industries are revealing limits – possibly absolute ones – to the narrow commercial development of culture. The first such obstacle is quite simple: it is that the primary resource of these industries is no longer *things* but *people*. I can illustrate this with a table, reproduced here as figure 3, that we prepared during our work on the creative industries for NESTA.

FIGURE 3: CREATIVE INTENSITY

TABLE 2.2: INTENSITIES IN THE DCMS SECTORS, 2011 ESTIMATES

		Creative	Other Occupations	Total Occupations	Intensity
1.	Advertising	45,900	69,400	115,300	40%
2.	Architecture	67,300	36,200	103,500	65%
3.	Art & Antiques	500	8,300	8,800	6%
5.	Design	56,400	42,100	98,500	57%
6.	Designer Fashion	3,700	2,900	6,600	56%
7.	Film, Video & Photography	28,700	29,500	58,200	49%
9&10.	Music & Visual and Performing Arts	138,400	52,800	191,300	72%
11.	Publishing	71,300	111,500	182,700	39%
8&12.	Software/Electronic Publishing	900	22,300	23,200	4%
8&12.	Digital & Entertainment Media	2,000	11,200	13,200	15%
13.	TV & Radio	61,700	34,200	96,000	64%
	<b>Total</b>	<b>476,800</b>	<b>420,500</b>	<b>897,300</b>	<b>53%</b>

Source: Bakhshi et al (2013)

This graph takes a while to understand but it's worth doing so. It records a figure for the industries in the UK giving the *intensity of employment of creative workers*. This is the proportion of the workforce that is creative – here, according simply to the DCMS's own statistical definitions.

The total intensity of creative employment, at 52%, is *twenty-five times* greater than in the rest of the economy. Moreover in *all* industries except three, this is higher than 30% and in two of these, DCMS made a mistake, which we have now corrected. So it is an almost universal feature of these industries that they employ creative workers on a completely new scale.

To see how extraordinary this development is, we studied whether the same is true for other industries. For example, are the majority of workers electrical industry electricians? No, only about 10%. Or do the majority of workers in health? No, again, only a maximum of 15%. In fact there is no other industry which is defined by employing a special group of workers. They are all defined by

using a particular raw material, such as oil, or by making a special product, such as food, or by using a special kind of process, such as manufacturing.

In fact intensity in the creative industries is not only large, but exceptionally so. It is on average 25 times greater than in the non-creative industries.

So we have for the first time a type of *industry* that is defined by its use of a special kind of *worker*.

But this becomes even more interesting when we return to the definition of creativity. This is associated with many strange ideas, not least the early idea we get from the German Romantic Movement that creativity is a kind of divinity – out of which arises the notion of the ‘creative genius’. We have defined it much more precisely and the feature of creativity which emerges as dominant – in a list of about four other key features – is that it cannot be replaced by a machine and it cannot be mechanised.

In other words, the creative industries are an industry that depend on a *–non-substitutable* type of labour. This is the fundamental jumping-off point for the rest of the analysis.

The first, fundamental economic consequence is that we have to find a way to *invest in humans*. The talent, the special ability of the creative, cannot be separated from the labourer. It takes many years to develop. That creates difficulties for private capital, which is founded on what Marx termed the ‘separation of the worker from the means of production’. Capitalism, in a certain sense, consists in the accumulation of the products of labour in order to subordinate labour. But here we have a product of labour which resides in the brain and body of the labourer.

Paradoxically at the very moment when to get out of the crisis we should be investing massively in the workforce – in higher education, in artistic talent, in skills, and so on – these are being cut as ‘luxuries’ in the austerity-driven budgets of the advanced western economies. Nothing could be more suicidal.

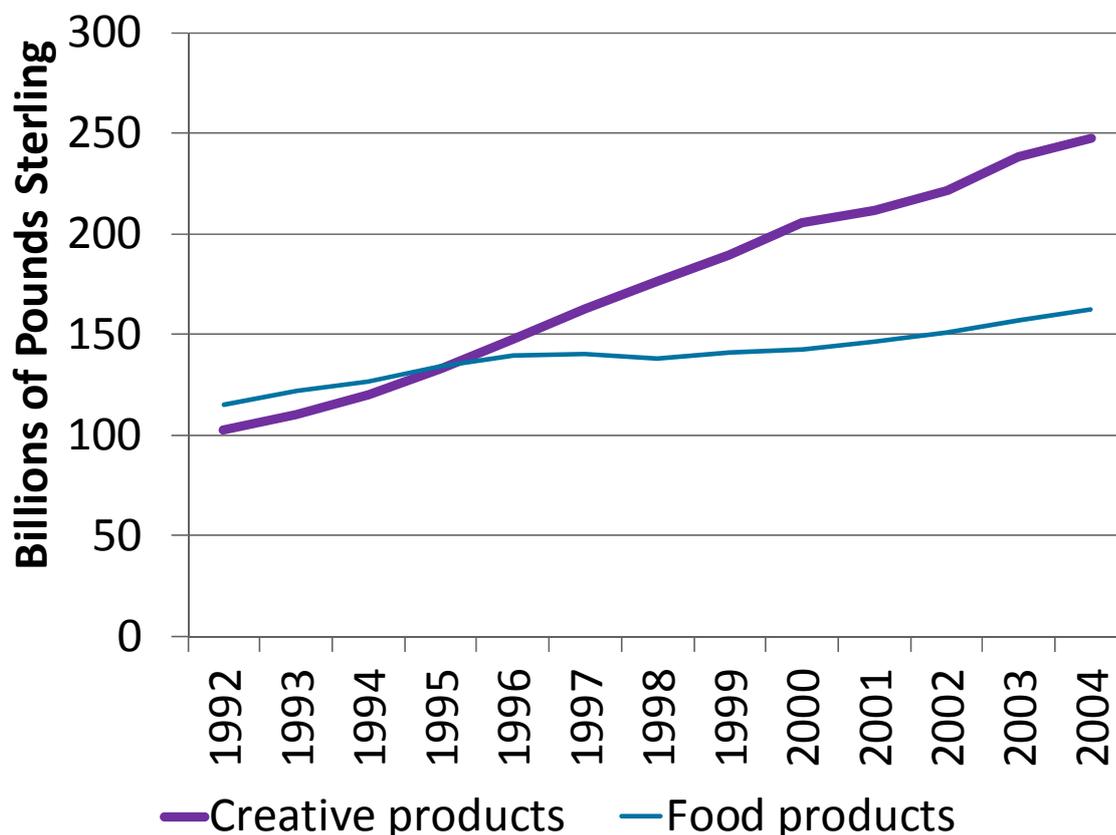
The first requirement is therefore a fundamental rethinking of the role of the *public* sphere in the broadest sense – not only public service provision, not only infrastructure provision, but the task of *developing a culturally-capable population* – very much as Jiang Zemin has outlined. This is actually a radical extension of the role of the public sphere, but of a very new type, and therefore demands radical and innovative rethinking.

The second fundamental obstacle is the nature of *demand* for creative products. Here I will refer to two further charts that I find fundamental. The first of these deals with a decisive discovery. This is that ‘discretionary expenditure’ in the UK reached a turning point around 1994. This is shown in figure 4.

In 1994, expenditure on leisure goods by UK families for the first time exceeded that on food for the first time. The gap between them has grown ever since and the former is now over twice the latter. Near that year also, expenditure by business on advertising and software – the two discretionary components of business spending – exceeded that on all other inputs.

The creative industries are founded on supplying human needs *above and beyond material necessity*. This is an essential insight because of the stage that human development has now reached. An invisible threshold has been passed, without anyone noticing. The average income of the world today, at around \$6000 in constant chained dollars, is now higher than that of the average income of a US workers in the 1950s.

FIGURE 4: DEMAND FOR CREATIVE PRODUCTS BY UK FAMILIES 1992-2004



Therefore, first, modern poverty is entirely socially produced. The reason for the vast number of starving people in the world is not that nature cannot provide; it is that society cannot provide. World Inequality is therefore a fundamental obstacle to growth because it *removes the primary new source of demand that an economic expansion requires*.

Every new ‘exit from crisis’ – every large-scale expansion of production such as the industrial revolution, the age of steam and coal, or the postwar boom, has depended on a new source of mass demand. The industrial revolution rested, reduced to essentials, on a massive expansion of the consumption of *clothing*; The second Kondratieff on the mass growth of *travel* and *urbanisation* in Victorian England, and the post-war expansion of the US on the Fordist mass consumption of the car and the gadget.

But creative demand arises from consumption *above and beyond mere necessity*, it is completely impossible to envisage a new wave of mass expansion whilst the vast majority of the world’s population remains at the level of \$1 or \$2 per day. *A massive expansion of the standard of living of*

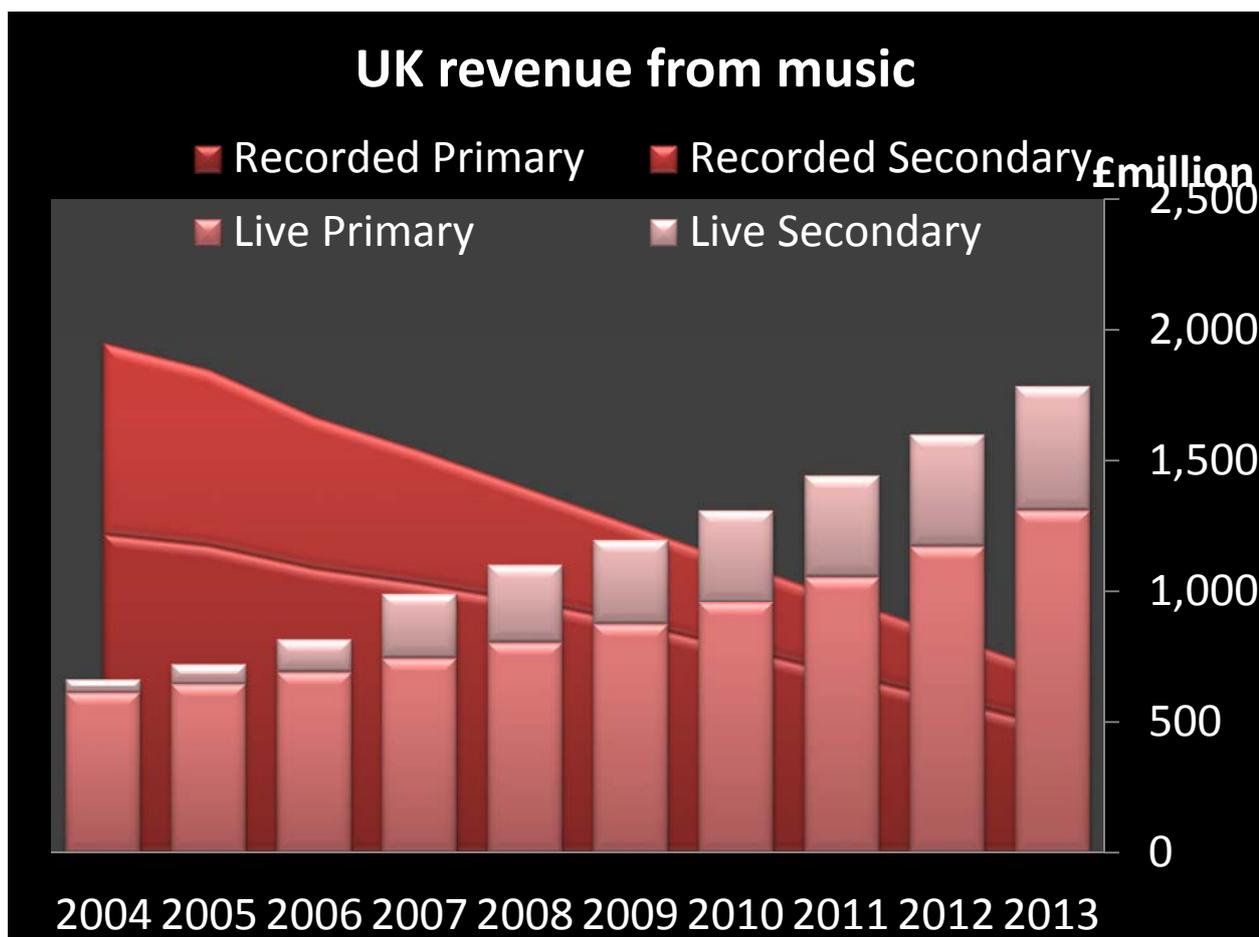
*the poor countries of the world is a pre-requisite for a new phase of growth.* The huge growth of inequality that has accompanied neoliberal reaction to the impasse of 1974 is therefore the single greatest obstacle to the kind of growth that is needed.

The last obstacle is a broad point, often subsumed by ecological activists within the narrow, though correct notion that a different ‘lifestyle’ is required. This is certainly true, but what must be asked is what social tendencies are leading in this direction? The answer is, precisely those social tendencies that are unleashed, at least potentially, by the growth of the creative industries.

The issue is here: ‘What do the creative industries produce?’ What product satisfies this demand for products over and above the biological or indeed, social minimum? Let us recall how Marx defined ‘use-value’ in the first volume of Capital:

*A commodity is, in the first place, an object outside us, a thing that by its properties satisfies human wants of some sort or another. The nature of such wants, whether, for instance, they spring from the stomach or from fancy, makes no difference.*

FIGURE 5: REVENUE FROM RECORDED AND LIVE MUSIC IN THE UK, 2004-2013



It is true that it makes no difference to the nature of the commodity whether such wants spring from the stomach or from fancy. However it makes a great deal of difference to history. We are

entering an age when fancy has the potential to conquer the stomach as the historical driver of demand. What will a society based on such demand look like? What *could it* look like?

The first line in figure 4 shows the decline in the sales of recorded material – CDs, discs, tapes and so on. The second shows the rise in spending on live performance. The long-forecasted death of the music industry at the hands of the pirate downloaders has not happened. Instead we see something very familiar to economists: a substitution brought on by income effects. File downloading has smashed down the price of access to performance. How have consumers reacted? Not by spending the extra money on potatoes or cars, but by spending it on *enhanced* performance, on live performance – precisely on re-establishing the directly social relation on which culture is founded. This must mean, in simple economic terms, that the product has a greater use-value because it is more highly-rated.

But from where does this high rating arise? Why should people pay ten, twenty, thirty times as much to watch an orchestra or a pop group performing live, what they can download for next to nothing on the internet? Empirical research and simple logic both give the same answer: it is *because in the live performance they interact with other humans*. The revenge of the human on the robot consists of this: given the choice, humans will pay indefinitely more to interact with another human than to interact with a machine.

## WHAT DOES ‘PRODUCTIVITY GROWTH’ MEAN IN THE PRESENT CONJUNCTION?

Here we come up against the third and final problem in the physicalist, machinocratic understanding we have inherited from previous economic thought.

Imagine what Victorian England would have been like, if the railways had been developed to the maximum, but nobody travelled? Or if when everybody in the US had got their post-war car, they had simply parked them in the front and polished them on Sunday? The development of what Carlota Perez calls a ‘socio-economic paradigm’ requires not only a new ‘carrier’ technology such as the railways or roads and cars, or the electrical system, but a series of new *forms of use*.

The present state of the internet age is this: the internet is a revolution in *service delivery* – a new ‘carrier’ technology – in which there is as yet only a very limited development of the way that technology is used. Here we confront two famous ‘paradoxes’ of economics. One was enunciated by Robert Solow who famously remarked in the 1990s that ‘we see computers everywhere except in the Productivity figures’. The other is a famous paradox known as the Baumol paradox, after William Baumol, a famous supporter of the arts. He argued that productivity in services could not be increased because services consist of *interactions between humans* which require them to be next to each other. Famously he pointed out that if an orchestra performs Mozart, it cannot raise productivity by playing Mozart faster.

Yet, we now see two obvious refutations of Baumol. The first is that with the age of the internet in fact *more people can take part in direct relations with other humans*. In Winnipeg, for example, we can every Saturday go to a local cinema and listen to a live performance by the New York

Metropolitan Opera. And we have long been able to buy recordings, or download them, including video recordings, of the music and the performances which according to Baumol requires us to be in the theatre.

But second, this is *not driving people out of the theatres and cinemas but is to the contrary increasing participation in them, and raising their takings*. If we look at the money that is now being spent on live performances in our rich cities, we find that people are *paying more* to watch live performance than recorded. There is a hierarchy of 'quality' being established in which people *prioritise and prefer direct and intimate interaction*. Society, and its culture, are re-asserting themselves.

We thus have the kind of 'revenge of culture' which, having been expelled from the workplace and from the physicalist economy, now becomes the most sought-after domain of expenditure.

The question we should therefore be asking 'what *kind* of cultural expansion is economically and socially feasible?'

- A resource-consuming or a resource-reducing expansion
- One based on *reduction* of inequality or *hierarchisation* of culture?
- One based on the *general development of cultural activity* or its manipulation through such phenomena as *celebritisation* and *casualization*?

The key to all these questions is a proper understanding of what 'culture' really consists of. Moreover the idea of classifying the output of the creative industries as cultural, though I go along with that, brings into the immense difficulties of defining what culture really is. For Freud (2004:110), for example, culture was simply everything by means of which society reproduced itself

*[C]ulture, by which I mean everything in which human life has risen above its purely animal circumstances...includes on the one hand all the knowledge and skill that humanity has acquired in order to control the forces of nature and obtain from it goods to satisfy human needs, and on the other hand all the institutions that are required to govern the relations of human beings one to another and in particular the distribution of such goods as can be obtained.*

Culture is, in other words, the entirety of those human interactions that have been driven out of the workplace, and thereby out of the structure of demand, by a physicalist machinocratic phase of development.

The core real meaning of 'service' is that it is a relation between humans. Whether somebody cuts your hair, plays you a tune, teaches you, gives you boring lectures like this one, cares for your health, drives you from one place to another or simply sells you some useless piece of advice, you are placed in a relation with another human who is *by definition* indispensable to the relation. IT follows that we have to develop and nurture *all* human interaction and not simply those to which discrimination currently assigns aesthetic value and consequent high prices.

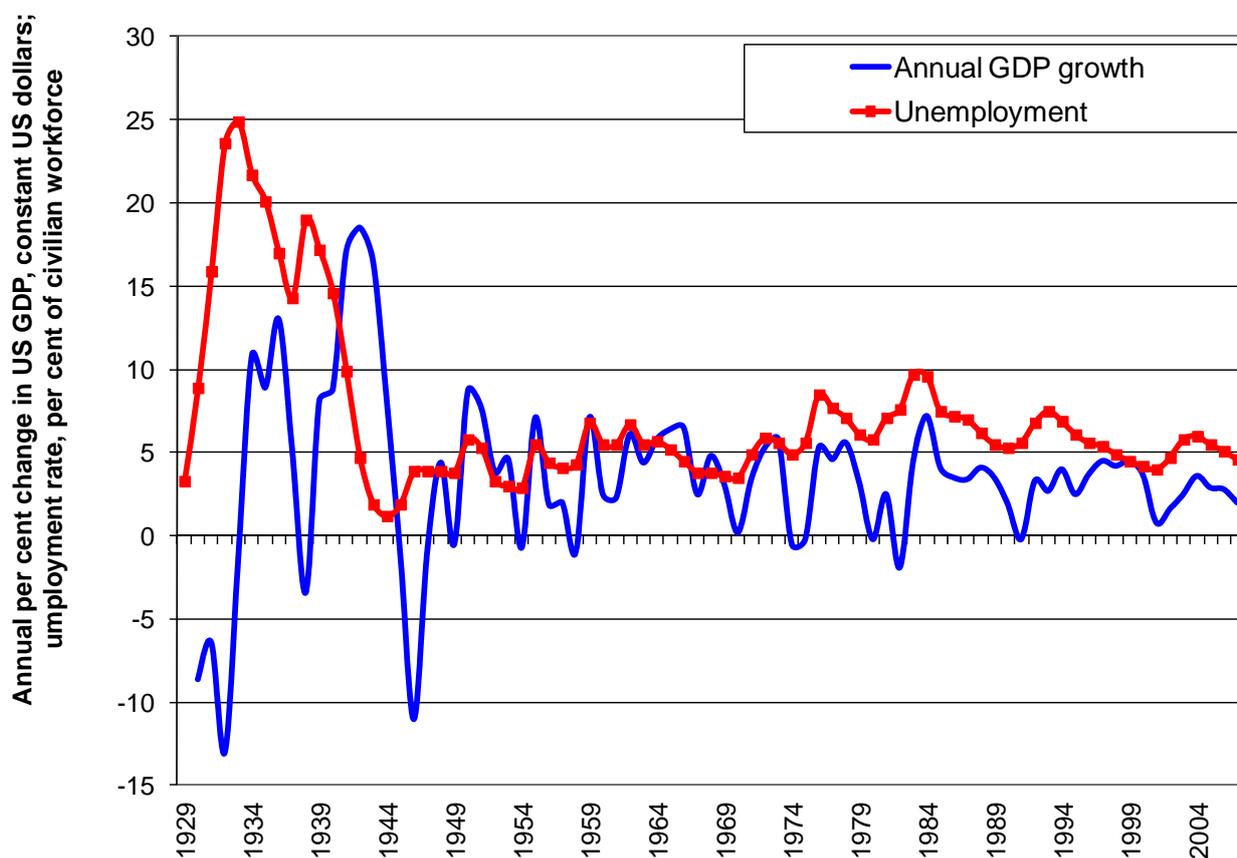
There many more kinds of social interaction than art are indispensable to society - for example education, health, caring, and child-upbringing.

We need a 'new world culture' in which these quintessentially human forms of interaction become therefore the basis of a *new system of universal rights*, the primary goal of development, the primary goal of industrial and social policy, and the primary goal of humankind.

The peculiar and special nature of this crisis is that in this respect, the crisis of humankind and the crisis of the economy entirely coincide. This is not only the only way forward humankind but actually, the only way out of the crisis, and the only road to development.

I want to finish on two rather striking graphs, taken from Freeman (2009a and 2009b). These show how the last crisis ended. It was not, as widely believed, the new deal that brought the US crisis to an end.

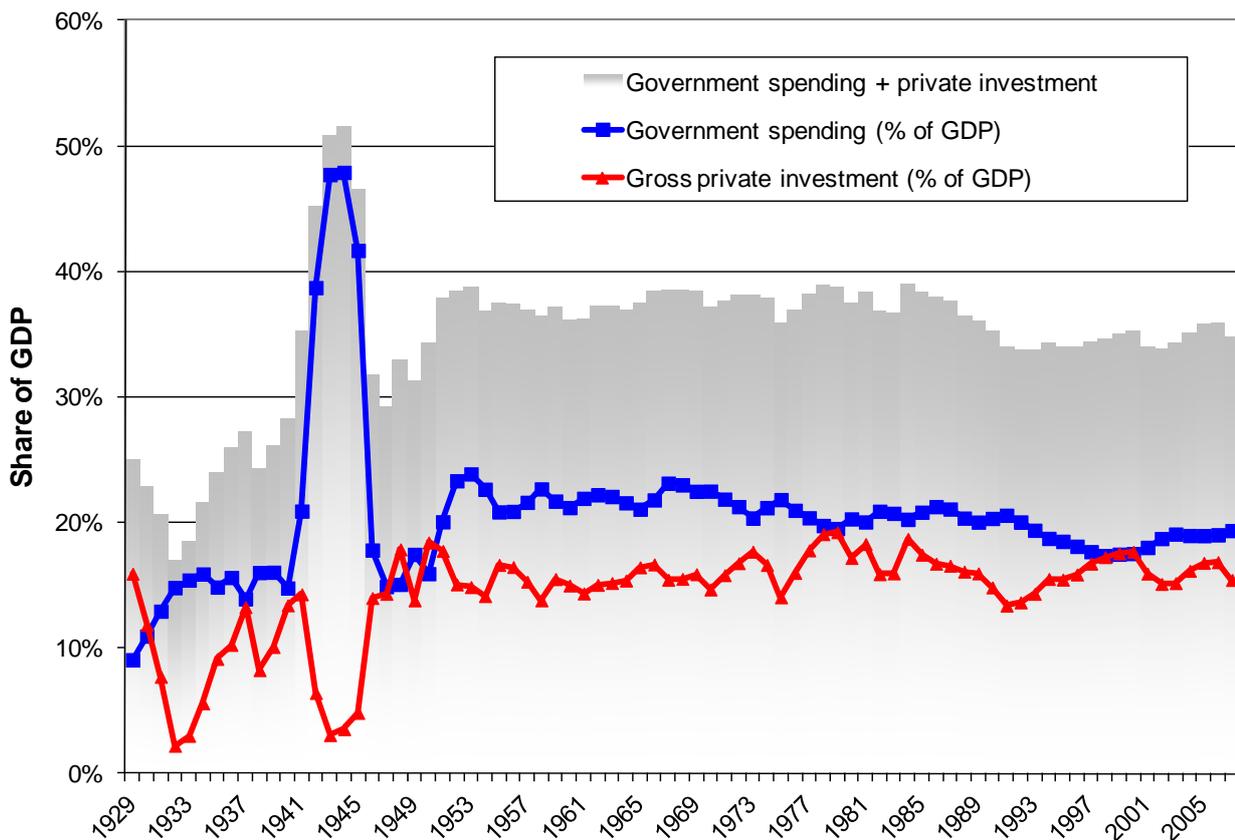
FIGURE 6: GDP GROWTH AND UNEMPLOYMENT IN THE USA SHOWING WHEN THE RECOVERY REALLY BEGAN



Unemployment, and low growth, remained largely at their 1933 levels throughout the New Deal and after a brief recovery, plummeted again.

What then launched the postwar boom? Two things: the war, and the US state.

FIGURE 7: WHAT STARTED THE US RECOVERY?



The boom was launched by the war. Recovery in Japan and Germany had already been begun through the new regimes and through war preparations. Central to this was the role of the state, which, contrary to all economic doctrine, became such an active player that by 1942 it accounted for nearly 50% of state expenditure. It was obviously also, either directly or indirectly, a major investor, since private investment fell to half a percent in the war years.

On the one hand, this highlights a basic point independent of the creative industries: the only way out of the crisis on the present scale is public investment on an unprecedented scale.

This is a bridge that the Western Economies will have to cross, sooner or later, at some point; the policies of 'austerity' are simply piling misery on economic misery and have nothing to offer except hard-learned lessons.

The issue is, however, whether they will learn it as did Germany and Japan in the 1930s and the USA in the 1940s, or in a different way – a way that has not yet been seen in history, in which a social and economic leap forward is launched not by investing in the protection of a small number of people but by a determined attempt to raise the standards of life, and civilisation, of a huge number.

We thus have a choice in front of us between two paths of development. In the path that humankind needs to tread, I believe the creative industries will emerge, and will be seen by later generations, as signalling a fundamental turning point.

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