

THE UNBALANCE SHEET

by John Brignell

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The concept of the balance sheet is important to the provision of information over a wide range of human activities, particularly in science and finance.

The weasel words *Off Balance Sheet* have historically been used by shady businesses to hide items that represent [hidden liabilities and risks](#)¹. They were a significant factor in the build up to the great financial crisis that still stalks the world economy. The technique is also used by politicians: notoriously, for example, by Britain's New Labour Administration in the form of the Private Finance Initiative. The alarming scale of the liabilities only emerged after the departure from office of the instigator, Gordon Brown. It is still in use, however, in the form of stealth taxes: the outrageous cost of ineffectual wind-turbines and their deleterious effect on the National Grid, for example, is cynically loaded onto the energy bills to suffering customers and does not appear in the (allegedly now more open) taxation and expenditure figures. It is a cruel regressive tax that is responsible for a substantial and continuous increase in the miseries of real poverty.

In science the balance sheet has mechanical equivalents, the chemical balance (scales), which measures mass, and the spring balance, which measures weight. There is also a theoretical equivalent, the powerful concept of the algebraic equation, which is the mainstay of all physical sciences. Because of universality of conservation laws, the balance sheet, or its near equivalents, appears regularly in scientific practice.

One of the most difficult forms of balance sheet in science is the heat balance. The author's old physics master had several memorable sayings, one of which was "The trouble with a heat balance is that it doesn't". Heat is difficult stuff to deal with: it tends to leak away or hide in the form of potential energy and then reappear; but cannot be measured directly. A very able late colleague of the author, one [Martin Fleischmann](#)², was globally glorified and then crucified after reporting the results of an experiment that seemed to indicate excess heat, suggesting the possibility of cold fusion. It turned out to be unrepeatable. Some modern and less honest "scientists", particularly in the field of climate, now keep their data and workings secret to fend off attempts at replication. This is more often than not publicly funded work and the fact that such corrupt practices are allowed is a testament to the poisoned condition of public science.

¹ http://www.pwc.com/en_US/us/10minutes/assets/pwc-10minutes-off-balance-sheet.pdf.

² <http://www.bbc.co.uk/news/science-environment-19180011>.

It is a great wonder of this age of information that a huge proportion of the activity is applied to the generation of misinformation. It is done for a variety of reasons – financial profit, fame, career advancement, political advantage, quasi-religious fanaticism etc., often in various combinations. To understand how this works it is useful to adopt a couple of old legal terms to divide it into two classes. *Obreption* is seeking to gain advantage by misstatement, i.e. lying. *Subreption* is trying to do it by concealing part of the truth.

The modern masters of obreption are the USA EPA. For example, they frequently state that some target “poison” has no lower limit of dose for lethality. They do this without adducing any evidence, even in statements made directly to members of Congress. This is an example of the “dosage fallacy” and is in direct contradiction to the first law of toxicology: that the poison is in the dose. Many long known “poisons” are now used as beneficial medications in small doses: e.g. Warfarin, deadly nightshade, foxglove etc. That this sort of systematic lying is widely tolerated is one of the great scandals of modern politics. In the field of deliberate disinformation, the EPA bestrides the world like a colossus. It has established statistical chicanery as a legitimate tool of government. It is the model for all the other campaigners, be they zealots or profiteers.

The modern masters of subreption are the promoters of global warming catastrophism. With the aid of their numerous fellow travellers in the establishment media they propagate grossly one sided accounts of various phenomena: e.g. glaciers retreating (when many are advancing), “record” loss of Arctic ice coverage (when there is a simultaneous record gain in the Antarctic) and most notorious of all **Hiding The Decline** in the notorious Climategate e-mails, followed by the even more contemptible subsequent political [whitewash](#)³, justifying employment of the greatly overused –gate suffix.. The 2006 [Stern Report](#)⁴ was the very model of sensationalist selective propaganda that inspired both tax gatherers and disaster fanatics. These people utilise a form of subreption known as *phenology*. It involves going through the catalogue of reported physical phenomena, then selecting and publishing those that appear to conform with their particular hypothesis. Any that do not are discarded. That the [resultant list](#)⁵ is ludicrously self-contradictory is blithely ignored, as ordinary readers are unlikely to check.

If you are in doubt about the amount of deliberate misleading that is going on, just look at one month ([June 2010](#)⁶ for example, at random). Here are a few slightly less obvious examples:

INCANDESCENT LIGHT BULBS

First the EU and then the USA have banned the sale of this cheap and convenient device developed over the years by Swan, Edison and their predecessors in favour of more expensive and far less satisfactory alternatives. The justification of this action, which only a few years previously would have led to an outcry over excessive authoritarianism, was that about 90% of

³ <http://www.numberwatch.co.uk/2010%20July.htm#whitewash>.

⁴ <http://www.numberwatch.co.uk/2006%20October.htm#astern>.

⁵ <http://www.numberwatch.co.uk/warmlist.htm>.

⁶ <http://www.numberwatch.co.uk/2010%20June.htm>.

the energy input is wasted as heat. That crude energy budgeting left out two rather significant factors:

1. By far the greater part the energy consumption for domestic lighting occurs during the dark winter period, when heating systems are on.
2. **All** the energy supplied to all lighting devices (and indeed virtually everything else) ends up as heat.

Thus, in a complete energy balance sheet, almost all the energy delivered to domestic lighting reduces the requirement for heating energy by the same amount. Furthermore, a financial balance sheet would need to include the recovery of the higher capital cost of the preferred “green” devices. It is questionable whether this could ever be done in the lifetime of the device, as the financial recovery would only occur at any marginal difference of cost between electrical energy and the chosen source of heat energy. Even more bizarre was the campaign to switch off pilot lights, which might produce enough heat to keep your big toe warm. The real motive was, of course, to enforce observance of the [new religion](#)⁷. It is an egregious example of the contradictions of modern political life that the EU, in one of its frequent bouts of chemophobia, banned mercury in its harmless natural form (a non-wetting liquid of low volatility) thereby destroying several small industries: then subsequently enforced its use in the dangerous vapour form on the population of a whole continent; forgetting in the process to provide a means for its safe disposal. Any semblance of a balance sheet is entirely absent in such shenanigans.

COST TO THE HEALTH SERVICE

It is common practice among various activists to cite alleged costs to the health service as justification for interfering in the lives and choices of others. As further justification of their aims they state, often without evidence, that the (usually politically incorrect) behaviour that they despise drastically shortens life expectancy.

You do not need to resort to unreliable government statistics to affirm that the greatest cost to the health service is people living inconveniently long. Just visit the waiting room of a general practice or hospital surgery. Most medics spend most of their time practising geriatric medicine. Thus in a complete balance sheet of the alleged cost of the said behaviour you should deduct the cost of hip replacements, dementia therapy and other treatments that are largely incurred owing to old age. If you live in the [world of magic potions](#)⁸, of course, you can simply summon an economist to do the hard sums.

The British National Health Service is a basket case, largely because it has been in a permanent state of reorganisation ever since it was founded; mainly as a result of a common delusion among politicians that health is something they understand. As a result it has been colonised by

⁷ <http://www.numberwatch.co.uk/religion.htm>.

⁸ <http://www.numberwatch.co.uk/2005%20August.htm#Quasimodo>.

an overweening management clique. Crucial clinical decisions are being made not by clinicians but by anonymous, secretive and costly administrators. Important prescribed therapies are withheld without explanation. This is often done on the grounds of triage based local short-term budgetary considerations, rather than the ultimate cost to the service as a whole. At this point, for reasons of honesty, the author must confess that these opinions may be coloured by personal experience. Some wonderful people work in the service, maintaining levels of compassion that are remarkable, considering the system within which they find themselves. This disregard of future liabilities to buff up the appearance of the balance sheet is directly analogous to the above mentioned *off balance sheet* fiddles in finance and politics.

BAD GREENHOUSE

In [an article](#)⁹ with the above title the following claim is emphasised:

The surface of the Earth is warmer than it would be in the absence of an atmosphere because it receives energy from two sources: the Sun and the atmosphere.

There are two fallacies here. The first is owing to the fact that the wet, dry and gassy bits of the earth cannot be treated as thermally distinct entities, since they are close-coupled by a number of processes (conduction, convection, evaporation, precipitation as well as radiation). Even if we choose to ignore that problem there is still the fallacy of the incomplete balance sheet to consider. It is quite improper to cite the transfer of heat from one body to another without considering the transfer in the reverse direction. The wet and dry bits supply heat to the gassy bit as well as vice versa. If there is a disequilibrium, each component will warm or cool until equilibrium is established (the second law of thermodynamics). These parts of the earth are then in equilibrium (on average) and the temporary deviations that seem so dramatic to us in the form of weather are actually minor in relative scale. As solar radiation arrives at the earth's disc, apart from a tiny atmospheric rim that increases the effective radius, it will all arrive whether there is an atmosphere or not.

The so called [greenhouse effect](#)¹⁰ occurs because the energy is reradiated by the greenhouse gases but, unlike the incoming energy, its spectrum is one corresponding to the temperature of the earth and not the sun, which is not the case with simple reflection. This spectrum is modified by the absorption/emission spectra of the gasses. The main agent is water vapour, which is present in much larger quantities than carbon dioxide and also has a more substantial area under the absorption/emission spectrum. The balance requires the temperature of the earth to rise slightly until equilibrium is reached. The only factor that really matters in this context is the energy reradiated outwards. Everything else is just rearrangement of the thermal furniture, which provides employment for richly endowed computer modellers. That atmospheric gasses [as rare as methane](#)¹¹ are now cited in this propaganda can only be interpreted as an act of desperation.

⁹ <http://www.ems.psu.edu/~fraser/Bad/BadGreenhouse.html>.

¹⁰ http://www.numberwatch.co.uk/greenhouse_effect.htm.

¹¹ <http://www.numberwatch.co.uk/2009%20October.htm#cracker>.

THE DIET RACKET

Unbalance is, of course, the essence of cranky diets. The ideal diet is balanced, varied and moderate. Billions of symbiotic gut bacteria break food down into component parts, in exchange for a share of the spoils, and the components are re-assembled in the complex chemical factories within cells to produce the larger molecules that are essential for the structure and operation of the human organism, such as cholesterol.

Most cases of excessive consumption are dealt with by a process of homeostasis, or negative feedback control: so if, for example, you take a little too much salt, which is one of the most vital components, the excess will be fairly rapidly excreted. There are, unfortunately, some exceptions. Evolution has endowed the body with a capacity to store energy in preparation for possible famine, which it does in the form of adipose tissue, or fat, which also provides insulation and protection. The conservation equation *energy in minus energy out equals energy stored* is obeyed. The true balance sheet for the human diet, however, is immensely complicated and involves the creation of many assets other than fat. To unravel it would require a greater effort than that to unravel the human genome and much of the detailed content is still unknown to science.

The diet industry is one of the largest and most rapidly expanding business sectors in the world. It is one of the most successful sectors of the book-publishing industry and of the media in general, which beget a huge market in dietary supplements. The complete [list of diets](#)¹² is staggering in length and growing. Some addicts continually lurch from one diet to the next, depending on the most recent article they read, usually to little benefit. The diets are generally justified by reference to theories that have no relation to the scientific method. Some depend on the results of modern epidemiology, which are often dubious and contradictory, because of the [low levels of statistical significance](#)¹³ applied. Many of the recommendations in diet columns can be traced back to the Harvard Nurses Health Study, which is based on [a data dredge](#)¹⁴, a statistically invalid procedure. They all rely on balance sheets that are not only partial but derisively so. Many of them have dangerous and destructive consequences, both known and unknown. Most people in western society who take, for example, vitamin supplements do not need them. Mostly there will be no hazard in this, apart from that to the wallet, but there are some serious dangers. Excess vitamin A, for example, can suppress growth; stop menstruation; damage red blood corpuscles; and cause skin rashes, headaches, nausea, and jaundice, to name but a few results of its toxicity.

STRICTLY FOR THE BIRDS

It is curious fact of human nature that self-styled lovers of animals tend to gravitate towards vicious killers (polar bears, foxes, mink, swans, hawks etc.) Self-styled animal lovers in the UK released captive mink and so the much loved water vole was brought almost to extinction.

¹² <http://www.everydiet.org/diets.htm>.

¹³ <http://www.numberwatch.co.uk/significance.htm>.

¹⁴ http://www.numberwatch.co.uk/data_dredge.htm.

One of the most startling of contemporary wild life statistics is that the population of songbirds in the UK has crashed in one generation, by 90% according to some estimates, which seems to accord with casual observation. The turning point coincides with the *Wild life and countryside act of 1981*. This, of course, could be coincidence, but such an outcome was predicted by critics of the legislation at the time. Before that it had been the practice, particularly among farmers, to control numbers of raptors and egg-thieves, in order to promote the survival of songbirds. The main promoter and subsequent defender of the legislation was the RSPB, though naturally there were EU directives involved. The RSPB regularly publishes statistics of the decline and ascribes them to causes as varied as the practices of wicked farmers and, it goes without saying, [global warming](#)¹⁵.

The song birds are on one side of a balance sheet. On the other are the inexorably rising numbers of birds of prey and nest raiders. This is the side that is de-emphasised to the point of invisibility, yet it is plainly visible to the most casual of wild life observers.

Students of the global warming industry will be familiar with the preponderance of fellow travellers in the media, who practice total self-censorship in order to prevent any disagreeable evidence leaking out. So it is with the nature writers. The nature correspondent of *The Times* notes the decline of thrushes (by about half), which he ascribes to “reasons that are not fully understood.” A full page article in the *Daily Telegraph* celebrates a partial recovery of numbers due to weather variation, and mentions predators on small mammals, but omits all reference to those that prey on song birds. For those who are alerted to them, the omissions speak louder than the words.

We can see and hear the attrition of songbird populations by raptors, such as the sparrow hawk. We occasionally hear from people who are distressed by it, such as [letter writers](#)¹⁶ to the newspapers and by the author of this essay. A song thrush was almost a member of our family (even the cats watched idly as it broke snail shells on its anvil stone) and it had a jolly signature tune that was the first line of an old children’s counting song. The shriek of terror and agony when it was carried off by a sparrow hawk stays in our minds many years later. We used to walk the length of the village, noting how small variations in that theme tune among the thrushes varied with distance. By the time we left, at the beginning of the new millennium, there was only one remaining thrush still singing. Likewise, the skylarks that had so graced our existence with their joyous singing had disappeared entirely.

Lord Heseltine, the elderly former MP and environment minister [expressed regret](#)¹⁷ that legislation that he was instrumental in passing has allowed magpies to flourish at the expense of birds like the skylark and song thrush. Unfortunately, ministers in new governments are suckers for superficially attractive initiatives promoted by zealots and other lobbyists. The unbalance sheet is central to their activities: adding one sparrow hawk to one side is equivalent to removing hundreds of songbirds from the other side.

¹⁵ <http://www.numberwatch.co.uk/2008%20April.htm#guv>.

¹⁶ <http://www.numberwatch.co.uk/2001%20January.htm#Thrush>.

¹⁷ <http://www.telegraph.co.uk/earth/wildlife/6826696/Lord-Heseltine-says-law-changes-have-helped-magpies.html>.

If you try to tell young people about how loud the dawn chorus used to be, they are inclined to dismiss it as a fantasy of old age. The love of bird song is a purely sentimental reaction, and why not? Many wicked farmers are members of the laudable Songbird survival trust <http://www.songbird-survival.org.uk/>.

HOW IT IS DONE

Most of these cases of subreption depend upon a love triangle, a three-cornered conspiracy of selective silence between three parties – the zealots, the media and the political class. Consider the case of the hug-a-husky stunt. A politician seeking to raise his public profile arranges a highly choreographed sledge trek, accompanied by reporters and photographers, to view a retreating glacier. Any unbiased journalist worth his salt would have checked whether this phenomenon was the norm. Perhaps some did, but there was no mention in the media that he could have visited several other glaciers in the same country that are **advancing**, as are [many](#)¹⁸ throughout the world. The media, however, had their scare story, the politician got his splash and the climate scaremongers got their propaganda coup.

Much of the flood of disinformation is spread by small groups who exercise disproportionate power and often originates from even smaller groups, within those groups, who have seized control. Thus the UK Conservative Party is now controlled by [a tiny minority of greenies](#)¹⁹, while the general membership are [voting with their feet](#)²⁰ and departing in their proverbial droves. The EPA is controlled by allies of Socialist International who have declared war on US industry and treat Congress with scorn. It has been answerable to no one. The RSPB, which has more members than all the UK political parties put together, is controlled by green propagandists and predator fanatics. Their [propaganda](#)²¹ is based on the just preservation a few rare species, while innocent subscribers are largely unaware that they themselves are responsible for the rampant slaughter of their beloved garden birds by the immoderately growing numbers of the likes of sparrow hawks and magpies.

The information age has spawned a whole new class system, with the manipulative classes taking advantage of the ignorance of the political class to advance their own interests at the expense of the general population. Within politics, governmental committees are colonised by extreme activists. In the UK parliament, for example, the environmental committee is dominated by people who are actively [making money](#)²² out of the green scams they promote. If that is not corruption, what is? Parliamentary debaters often select one item from one side of a balance sheet, to the exclusion of all others, and contrast it with an equally isolated example from the other side; pure sophistry, but it wins debates. Presidential and Prime Ministerial electoral debates exhibit extreme examples of this technique; while EU debates are thereby in the realm of Cloud Cuckoo Land, with tragic consequences for the suffering masses, particularly in the homeland of Aristophanes, ironically the conceiver of that realm.

¹⁸ http://www.iceagenow.com/Growing_Glaciers.htm.

¹⁹ <http://www.numberwatch.co.uk/2006%20December.htm#falls>.

²⁰ <http://www.guardian.co.uk/commentisfree/2012/jan/30/conservative-leadership-destroying-membership>.

²¹ <http://www.rspb.org.uk/news/326865-mps-urge-government-to-step-up-for-birds-of-prey>.

²² <http://www.numberwatch.co.uk/2012%20August.htm#NOM>.

In business, people guilty of false accounting go to jail (at least in theory) but in the wider fields of human activity they thrive. A substantial proportion of legislation by governments is provoked by just such deceptions (most notably in the EU). There is a huge interest in preserving the *status quo* that has thereby been achieved. Letters in the press from combinations of industrial subsidy junkies and true believers exert continual pressure on governments to this end. The great tragedy is that it not in the interests of anyone in The Establishment to put an end to this travesty. The unbalance sheet rules! OK?

It is a mad world, my masters.

ADDENDUM

The original draft of the above essay included an account of an experience of the author with a conspicuous error in certain text books. It was cut on the grounds of being a bit too esoteric for the general reader. On second thoughts, it might be of sufficient interest to enough readers to be worth mentioning, so [it is included here](#)²³ in the form of a copy of a published letter. **Warning:** it does require a modicum of understanding of basic mathematical physics. It was once the cause of some concern to the author and colleagues for an hour or two, after receiving correspondence pointing out that one of our publications contained a formula that was at variance with some standard text books. It soon dawned, however, that it was those books that contained an error, which is in fact quite a fine illustrative example of a missing term in an energy balance producing a grossly misleading result.

Source: http://www.numberwatch.co.uk/unbalance_sheet.htm.



²³ <http://www.numberwatch.co.uk/Charge.htm>.

*Cover photo of man balancing on
a tightrope provided by Fotolia.*



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