

## **Desensitising history by numbers: from William Petty to today.**

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### **Introduction.**

If the events of 1688 constituted a revolution, then this was a revolution inextricably linked with its opposite -- in its immediate content, it was as much a compromise between the forces in conflict as a victory of one side over the other, while from a broader historical perspective, it sounded a death knell for the far more genuinely revolutionary aspirations for which egalitarian forces had shed their blood during the civil war period of the 1640s. Yet, whether revolution, compromise, or even counter-revolution, the year 1688 nevertheless serves as a marker drawing attention to the outcome of developments in the political, constitutional, administrative, and economic spheres which had long been maturing in the course of the preceding decades. It is consequently to that earlier period that we must turn if we are to trace the origination of the ideological resources upon which the Whig 'revolution' drew for its legitimation, an exercise which, in itself, serves to demonstrate the inadequacy of the traditional Whig standpoint which "exaggerates the impact of the 'Glorious Revolution' [of 1688] as a discontinuity" (O'Brien 2002: 246). The economic thought of this preceding period provides a particularly rewarding field for exploration in this respect, as may be seen not least in the writings of William Petty (1623-87), where we can discern in embryonic form some characteristic features of the Whig outlook which Butterfield famously delineated, such as a "tendency to write on the side of Protestants and Whigs" and to "praise revolutions provided they have been successful".

As regards Protestantism, Petty's own religious convictions were eclectic, eccentric and even bizarre, but what matters in the present context is that he was a life-long opponent of France and of the associated 'political Catholicism', and, correspondingly, an adherent since his early years of the 'Dutch' way, and an importer of Dutch ideas in the fields of finance, taxation and economic organisation, long before England imported a Dutch monarch. In the context of Irish history, he was, indeed, in a sense a founding figure in the history of the Protestant 'ascendancy' of the subsequent period, and indeed of Irish Unionism generally. As for a tendency to "praise revolutions provided they have been successful", he of course died some months before the events of 1688, yet we can discern in his writings some initial manifestations of this element of the Whig

outlook. He displayed, for a start, effectively infinite acceptance of whatever regime was successful in seizing power, sustaining so far as he could his career during the early Stuart period, the revolutionary 1640s, the Cromwellian counter-revolution, the Restoration settlement and its incipient ‘unsettlement’, being, as Marx put it, “just as apt to plunder in Ireland under the aegis of Cromwell as to fawn upon Charles II” (Mark 1859 [1970]: 53-4). And though, unlike his prototype, the Vicar of Bray, he died before he had the opportunity of welcoming the Whig settlement, and so never produced for it “a story which is the ratification if not the glorification of the present”, we may perhaps accredit him with doing this posthumously. For barely had William and Mary been established on the throne when Petty’s family at last committed to print his works of ‘political arithmetic’, which in his lifetime had only been circulated furtively in manuscript, so blatantly was his standpoint aligned with the incipient Whig political platform – the consolidation of a rationalised national financial system in the service of both ‘landed’ and ‘moneyed’ interests alike, along with a strengthened fiscal-military system that could finance England’s rivalry with France for global commercial and colonial dominance.

Petty’s writings are upheld by economists as far apart as Sraffa and Robbins as founding documents of their respective traditions. In particular, Petty’s ‘political arithmetic’ is apparently universally identified as the principal fountainhead of the quantitative mode of analysis which has become inseparably associated with the economics profession, the central element of its ‘analytical rigour’ and the basis for the austere, clinical tone with which it buttresses its claim to scientific status. Yet actual research into the historical context in which he forged his ideas has been surprisingly meagre. This has deprived us of insights into the roots of much of the analytical apparatus which still remains in use by economists today. There is, in particular, a widespread assumption among economists – not always explicit but nonetheless influential – that the roots of the economics discipline lie in the Enlightenment movement in eighteenth-century philosophy, a movement which is assumed, in turn, to reflect a new capitalist ethos of free competition in the market. Yet, as an acquaintance with Petty’s works makes clear, much of the analytical apparatus in use among economists today had already been forged and set to work, in primitive form, in the previous century, in the context of bureaucratic-military officialdom and predatory colonialism. All modes of analysis have their source in history, and history is a tale of trauma, which is desensitised by quantification only at the cost of the truth. Such truth

can only be recaptured by confronting the analytical apparatus of today with its true historical roots, not with an idealised version that has been sanitised, depleted of historical content, and pared down to serve the sole function of providing abstract ‘precedents’ for the categories of analysis deployed by the victorious orthodoxy.

In what follows, therefore, Petty’s methodology will be reassessed in the light of the context of its own time, showing how its motivation and intended practical application were explicitly directed towards a programme of unbridled colonialist exploitation and massive historical injustice. In particular, a case study will be presented of the various stages of the evolution of his standpoint towards labour, a subject which illustrates the evolution of his approach towards the quantitative mode of analysis for which he is famed. In conclusion, the outcome of this exploration is assessed for the light it can shed upon the analytical, not to say ethical, adequacy of the analytical apparatus in use by economists today.

### **Biographical and historical background.**

In 1649, the English parliamentary forces, victorious after seven years of civil war with the monarchy, proceeded, on the one hand, to execute the monarch Charles I, and, on the other, to suppress the egalitarian elements within their own ranks. Having thus consolidated their victory on two fronts, they proceeded forthwith to the preparation and dispatch of an invasion force, led by Oliver Cromwell, to restore Ireland to the colonial rule which it had succeeded in throwing off during the civil war period. After a bloody three-year campaign of reconquest, the English authorities drew up a plan for mass executions of ‘rebels’ – defined sufficiently broadly to include the majority of adult Irish males – as well as deportations and enslavements, and the complete removal of the remaining Irish population from three of the country’s four provinces to a kind of reservation in the West – the notorious policy denoted by the expression ‘To Hell or Connaught!’. The army of occupation was to receive its arrears of pay in the form of entitlements to land thus vacated, and would, it was hoped, form the core of a massive colonial immigration that would forever replace the Irish throughout most of their country.

Neither the planned executions nor the ‘transplantation’ to Connaught proved practicable on the mass scale originally envisaged. However, one element of the original plan, the expropriation and redistribution of land, did go ahead, and it was here that

Petty's role was of pivotal importance, for it was to him that the army of occupation assigned the crucial task of surveying the expropriated lands for redistribution. The opportunities this assignment offered for bribery and corruption were bounded only by the shores of Ireland itself, and so fully did Petty exploit these opportunities that he soon became one of the foremost landowners in the country, alongside the wealthiest of the incumbent colonialists, on the one hand, and other Cromwellian *parvenus* such as himself, on the other. This coalition of large landowners, old and new, bought out the bulk of the land that had been allotted to the rank-and-file soldiery, and, before long, Ireland had fallen into their hands. The outcome was a kind of neo-feudal situation, in the sense that landowners like Petty were left lording it over Irish tenants and labourers who remained effectively enserfed on land which they had formerly cultivated as tenants of Irish landowners, as individual smallholders, or as clansmen exercising collective forms of tenure.

Following the collapse of the Cromwellian regime and the restoration of the monarchy in England in 1660, Petty succeeded in retaining most of the land he had seized, and for the rest of his days his lifestyle remained that of a neo-feudal grandee. His London residence was described by a contemporary diarist as a "splendid palace", while his fiefdom in county Kerry in south west Ireland was run along the lines of a small principality. But while he was thus accepted into upper-class society under the restored monarchy, he never succeeded in re-launching his official career on the high-flying path it had followed during the Cromwellian period. It was this frustration of his ambitions which drove him to produce those works to which he owes his singular position in the history of economic thought – an unending series of schemes for fiscal, administrative, military and naval initiatives which he vainly hoped would be entrusted to him. It is in the text of these proposals, whose form varies all the way from extensive treatises to brief jottings, that much of the analytical apparatus of modern economics first began to emerge.

The culmination of Petty's efforts to apply his new-fangled quantitative methodology of 'political arithmetic' came in the form of a renewed proposal for the 'transplantation' of the bulk of the population of Ireland, whereby they would be transferred not westwards into Connaught, as in the Cromwellian scheme, but eastwards into England. This would, he argued, bring great advantages to England, by increasing the density of its population, 'compactness' being, in his view, the key to the advantages enjoyed by Holland, which was, in his time, not only Europe's most densely populated country, but

also its most economically advanced. As for Ireland, the entire country was to be transformed into a “kind of factory” for rearing livestock for England, in other words one vast cattle ranch. This would, besides, bring about a “perpetual settlement” – or in the term used prophetically by his editor in 1899, a “final solution” – that could at last “cut up the roots of those evils” which “have made Ireland for the most part a diminution and a burthen, not an advantage, to England”. (For references, see Goodacre 2005B, 2007.)

Intermittently, Petty also participated in the movement for the advancement of science and technology that was fashionable in his time, his own involvements ranging widely from medicine to agricultural machinery, and from technological pedagogy to ship-design. But while these interests undoubtedly influenced the form and mode in which he advanced his economic and social thought, it is regrettable that the secondary literature has customarily allowed this aspect of his biography to overshadow consideration of the underlying colonialist motivation and character of his writings. This is despite the fact that Petty, far from seeking to conceal or disguise his aims, makes them abundantly clear, setting out in perfectly explicit terms a comprehensive programme for the systematic dispersal of the people indigenous to the colonised country and the utter obliteration of their social, cultural and intellectual traditions – in short, for their complete extinction as a demographic and national entity.

### **Petty on labour.**

Petty’s writings on Ireland bring us face to face with an era of momentous significance for world history -- the era when the world stood on the brink of the emergence of the capitalist system and the ‘great divergence’ in fortunes between the rich and poor countries to which that system gave rise, the era which Marx associates with the primitive accumulation of capital, whose features were the day-to-day reality reflected in Petty’s life and thought -- violence, social upheaval, expropriation of the cultivators from their land, the centrality of the state as the prime economic agent, and “passions the most infamous, the most sordid, the pettiest, the most meanly odious” (Marx 1970 [1867]: 762). What is far from clear, in contrast, is whether it is possible to identify in Petty’s writings an awareness of the ultimately definitive element of that historical era -- the process through which labour is brought into subjection to capital, so that capitalist accumulation can accordingly be set in train. His writings on Ireland are evidently

relevant to this issue, but are riven with what, in retrospect, appear as inconsistencies, and need to be carefully situated in their biographical and historical context if their significance is to be adequately assessed. In particular, it is necessary to distinguish three successive, though overlapping, phases in his perspective on labour, each of which illustrates an aspect of the preliminary stages through which early modern political economy had to pass in its path towards a formulation of the concept of capitalist accumulation.

*Phase I. Labour and neo-feudalism in Ireland.*

The first phase in Petty's perspective on labour in Ireland can readily be associated with the orientation he adopted with respect to the factional struggles within the colonial establishment in the Cromwellian period. These struggles centred around the fact that, by the time he had risen to high office in the mid-1650s, the faction of large landowners into which he integrated had become increasingly opposed to the implementation of the 'transplantation' of the Irish en masse. They were naturally more than happy to see the 'rebel' landowners out of the way, but wanted the actual cultivators of the land to be left where they were. For these cultivators constituted the population they aimed to enserv under their neo-feudal domination, and they had no wish to see them swept out from under their feet; least of all did they want them replaced by the soldiery of the Cromwellian army of occupation, who were, from their point of view, factious and uncontrollable 'fanatics' who had performed the task of restoring colonial rule, and were now best sent back to England as soon as possible.

The neo-feudalism of Petty and his fellow land magnates was far from being a mere reversion to 'true' feudalism as it had existed in the middle ages. On the contrary, as the enterprises which Petty subsequently established in his own fiefdom illustrate, a more commercial orientation differentiated such 'new seigneurs' as him from the feudal lords of the former epoch, just as the trade in grain surplus underlay the equivalent 'new feudalism' arising in areas of central and eastern Europe in the same period. (See Morgan 1985: 274-8, discussing Brenner 1976: 50-60.) Nevertheless, from a conceptual point of view at least, Petty's standpoint towards labour at this stage shared more in common with feudalism than capitalism, in the sense that he advocated a situation in which labour was to be retained *in situ* as effectively an adjunct to the land.

*Phase II. Anticipations of a wage economy.*

A second phase in Petty's perspective on labour may be discerned following the restoration of the English monarchy in 1660. He now remained in England for a number of years, during which time his attention naturally focused more on the English than on the Irish economy. In this phase, a contradiction opened out between his own continuing neo-feudal status and his increasing interest in the advance of the wage system. The idea that labour is, or should be, an adjunct to the land, in feudal style, now gave way in his writings to ideas and concepts that pointed forward to the world of emergent capitalism. Indeed, at the macro level, he ran ahead of the times in his celebrated formulation of a system of national accounts, in that he categorized the income of the entire labouring population purely and simply -- and as yet utterly unrealistically -- as 'wages' (see, for example, VS: chapter 2). At the micro level, he discussed the motivation of labour in terms of the concept which has subsequently been termed the 'backward-bending labour supply curve' -- the idea that an excessive wage level, or, in real terms, "over-feeding of the people", results in "indisposing them to their usual labour" (PA: 275).

Such simplifying assumptions and schematic concepts exemplify the manner in which Petty's thought prefigures what was eventually to become economics; they also, however, misrepresent the actual situation in England at the time. For while dispossession of the peasantry was indeed far advanced, it by no means follows that the resulting dispossessed population had as yet become a wage-earning labour force, least of all a homogeneous one. The reality was that the social dislocation, vagrancy and high mortality suffered by the dispossessed in the sixteenth century had to a large extent been replaced only by the political and national upheaval, civil wars and high mortality of the seventeenth. If such was the case in England, then it was incomparably more so in Ireland, and, when Petty returned to that country in 1666, his writings began to express increasing frustration over the problems involved in establishing a wage-earning labour force at all in the conditions prevailing there. For the Irish socio-economic system, based as it still was on communal as well as individual patterns of land use, remained, even at this time, "highly flexible and uniquely suited, in environmental terms," to its material circumstances (Morgan 1985: 278), and was fully capable of reabsorbing into itself those who might otherwise have constituted the demographic base for a wage-earning class.

Petty roots his comments on this situation in observation. The Irish, he states,

are able to perform their husbandry with such harness and tackling as each man can make with his own hands, and living in such houses as almost every man can build; and every housewife being a spinner and dyer of wool and yarn, they can live and subsist after their present fashion, without the use of gold or silver money (PA: 273).

Such being the case, the cash economy constitutes, by his estimate, only a fifth of all their 'expense', the rest of their consumption being "what their own family produceth" (PAI: 192); the principal exception is tobacco, which was evidently spearheading the introduction of cash transactions for consumption goods into the agrarian economy -- the Coca Cola of its day. He furthermore asserts that the Irish are able to supply themselves with "the necessities above-named without labouring two hours per diem" (PA: 273). He consequently asks:

What need they to work, who can content themselves with potatoes, whereof the labour of one man can feed forty, and with milk, whereof one cow will in summertime give meat and drink enough for three men, when they can everywhere gather cockles, oysters, muscles, crabs, etc., with boats, nets, angles or the art of fishing, [and] can build an house in three days? (PAI: 201.)

Petty's discussions of how the Irish are to be "kept to their labour" (PAI: 189) thus illustrate the obstacles to the subjection of labour to capital in conditions where they have the alternative of an independent livelihood on the land -- conditions which were to remain characteristic of much of the colonial world in the following centuries (see Marx 1867 [1970]: chapter 33, and, for discussion, Rodriguez Braun 1987, and Welch 1997: 164-5).

### *Phase III. Labour as mobile factor of production.*

From frustration and over-simplification it is only a short step to fantasy, and it was to this mode of thought that Petty turned in what signaled a third and final phase in his changing perception of labour -- his scheme for the wholesale transfer of the Irish population to England -- which he initially put forward "rather as a dream or reverie than a rational proposition" (PA: 285). The scheme nevertheless took on an increasingly realistic character, until it finally assumed a form whose elaborate statistical apparatus pioneered the entire genre of the economic policy proposal as it has existed ever since. Moreover, it now represented labour in yet another guise. For here Petty took forward



his celebrated three-fold division of the macro economy into labour, capital and land -- a division which unmistakably foreshadows the subsequent concept of factors of production -- and assigned to labour the role of what would, in today's spatial-economic analysis, be termed a 'mobile factor of production'.

However, to indulge in such retrospective analogies only highlights the limited extent to which Petty actually anticipates the 'factors of production' approach of subsequent economic theory, predicated as this is upon the endorsement of capitalist competition in the market, an institution which he dismisses as a game of dice won "rather by hit than wit" (TTC: 52-3; see also Aspromourgos 1996: 50-51, and Roncaglia 1988: 165-7). Rather, he turned spontaneously to the state as the sole force capable of imposing a solution to the problems of consolidating a wage-earning labour force in general, let alone implementing his own scheme.

Such was the long and complex process through which Petty's perspective on labour evolved from the neo-feudal standpoint of his Cromwellian years, to the empirical and observational approach of the subsequent period, and finally to a more abstract approach which began to foreshadow -- though only dimly and partially -- that of the mature classical political economy of the following century, and, beyond it, the economics that was to follow.

### **Quantitative fantasy.**

The last of Petty's major economic works, *A Treatise of Ireland*, has attracted relatively little attention compared to his more famous other three (i.e. TTC, PAI and PA). It represents, however, the culmination of his efforts to apply his new-fangled quantitative methodology to the practical issues of his day, and, in the first instance, to the formulation of colonial policy. The work was completed in September 1687, barely three months before his death in December of that year. It represents an unusual feat of authorship: densely packed with quantitative propositions, tabular presentations of data, and a labyrinthine maze of arithmetical calculations, it was composed after Petty's eyesight had very largely failed him, and he was almost entirely reliant upon dictation to commit the text to paper, very occasionally inserting amendments, in his own faltering hand, to the otherwise neatly-written manuscript copied down by an 'amanuensis'. Its contents are no less remarkable than the manner of its composition, for it sets out the final, and by far the most elaborate, version of his notorious scheme for the systematic

depopulation of Ireland and the transfer of its people – as well as those of the Scottish Highlands – into England.

The immediate stimulus for the composition of this *Treatise* was provided by the accession to the monarchy of James II in 1685, when Petty, with characteristically unfounded optimism and equally unerring mis-judgement, thought that, at last, his time had come, and that he would now be able to assume the role, to which he had so long aspired, of elder statesman and policy adviser to the monarchy. The new monarch did indeed appear disposed to reward him for the personal loyalty he had displayed throughout the vagaries of Stuart politics in the preceding period, and accorded a courteous response to the policy proposals which now began to arrive from this old retainer. Though this courtesy amounted, in reality, to no more than an assurance that the proposals would be passed to a relevant official for assessment (in this case Samuel Pepys), Petty chose to interpret this response as an indication that the monarch was prepared actually to take them seriously. Thus encouraged by what he perceived as a more favourable policy environment, he began to dust off and re-furbish various past projects, including measures to increase the population of England and promote the union of Ireland and England, to regulate the coinage and exchange rates, to reduce the incidence of the plague by half, to “get Hispaniola and Cuba”, to choose suitable spouses for the monarch’s natural children, to forge an alliance with Denmark, to reform the postage system, and so on (PP1: 251-276). Of all these projects, however, it was his scheme for Ireland which focused his most concentrated attention.

The ‘evils’ Petty sought to rectify in Ireland had, in his eyes, “made Ireland, for the most part, a diminution and a burthen, not an advantage, to England”, and his final *Treatise* aims precisely to quantify the supposed balance of this ‘burthen’ and ‘advantage’, and to suggest that it could be reversed by the implementation of his scheme; in today’s terms, his aim is to carry out a cost-benefit analysis. His method is to capitalise the flow of the prospective increase in England’s national income, from which he calculates that the direct benefit would be £100 million (TI: 563 §3); set against this, the “expense or damage” is only £4 million (TI: 555), giving a net benefit of £96 million. Much of his argumentation centres around his concept of the ‘value of people’, a concept which he develops in unabashed juxtaposition with discussion of the price of slaves (see Aspromourgos 1996: 200, note 6). His conclusion is that England would benefit to the tune of many tens of millions of pounds, and, more particularly, that there would be a 10% increase in its national income, and a 20% increase in tax revenue (his

actual figures working out as 10.6% and 21.6% respectively). Assuming that there would continue to be, as in the previous period, one year of war to every three of peace (TI: 549 §9, 567), the fiscal surplus resulting from the scheme would enable the state to accumulate, and permanently sustain, a war chest which would, he calculates, always stand £6m in credit in the event of all prospective wars, or, in his words, would “make a Bank of 6 millions pounds for the one year of war” (TI: 549 §9, 567, 572 §5); the result would be to tip the balance decisively in England’s favour in the ongoing naval and military struggles among the European powers for international maritime and commercial hegemony.

Historians of economic thought, when they have alluded to Petty’s final scheme at all, have, in general, limited themselves to a perfunctory mention, occasionally tinged with disapprobation or embarrassment, and the overall impression that emerges from the existing literature is that the subject can safely be passed over as an unfortunate and eccentric aberration of his later years, and, by the same token, that his final *Treatise* lacks resonance with subsequent economic theory. (A notable exception is provided by Poovey 1994: 20-32 and 1998, though the focus of these studies is on general issues of theory and methodology, rather than on colonial policy; see also McNally 1988: 46-48, and McCormick 2006.) A closer examination of the text reveals, however, that it does indeed cast much light on the roots of economics in general, and indeed may be seen to have pioneered the very concept of an ‘economic policy proposal’, in the sense in which the term has since come to be understood. It is true that there had been precedents, in a general sense, from Xenophon’s *Phoroi* (*Ways and Means*) in the fourth century BC to the innumerable proposals of the ‘projectors’ who preceded Petty; what he did that was new, however, was to back his recommendations with a combination of statistical and cost-benefit analysis within an explicit theoretical framework. In that sense, the entire tradition of ‘applied economics’, as it is now understood, follows in the footsteps of Petty’s pioneering documents, of which his final *Treatise* is by far the most elaborate.

## **Conclusions**

Awkward questions arise regarding the analytical, not to say ethical, adequacy of the analytical framework in use by the economics profession of today when it is realised that it is heir to such an intellectual ancestry. However, such questions are now effortlessly avoided within that profession, for it is many years since neoclassical

economists such as Samuelson still felt bound to represent the increasing dominance of the orthodoxy as due to an *intellectual* victory over its theoretical adversaries. For it soon became so ensconced in the professional and institutional structure of the discipline that it was in a position to indulge in a degree of dismissive triumphalism which the Whigs of the eighteenth century would never have dared to display. Now we are witnessing yet a further stage, in which the all-powerful orthodoxy quite simply maintains an informational blackout on the history of its own analytical apparatus, leaving the majority of up-and-coming economists unaware that such a subject even exists. Yet this subject – the assessment of the accumulated experience of the interrelation between economic analysis and the world in which it is applied – is, or at any rate surely should be, what economics *is*. So what are ‘economists’ doing these days? Merely trying to desensitise us by numbers to the trauma of history as it is actually experienced? And if that is the case, what underlying interests does this serve, and what continuity do these interests display with those which were served by Petty?

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**PA:** *Political arithmetic, or a discourse concerning the extent and value of land, people, buildings; husbandry, manufacture, commerce, fishery, artizans, seamen, soldiers; publick revenues, interest, taxes, superlucration, registries, banks; valuation of men, increasing of seamen, of militia's, harbours, situation, shipping, power at sea, &c. As the same relates to every country in general, but more particularly to the territories of His Majesty of Great Britain, and his neighbours of Holland, Zealand, and France*. [Written in around 1671-2, but first published in 1690.] In EW: 233-313.

**PAI:** *The political anatomy of Ireland*. [Apparently written in 1671, but first published in 1691.] In EW: 121-231.

**PP1, PP2:** *The Petty papers: some unpublished writings of Sir William Petty*. Edited from the Bowood Papers by the Marquis of Lansdowne. 2 vols. London: Constable. 1927.

**TI:** *A treatise of Ireland*. Written in 1687. First published in 1899 in EW: 545-621.

**TTC:** *A treatise of taxes and contributions. Showing the nature and measures of crown-lands, assessments, customs, poll-moneys, lotteries, benevolence, penalties, monopolies, offices, tythes, raising of coins, harth-money, excize, &c. With several intersperst discourses and digressions concerning warrs, the church, universities, rents and purchases, usury and exchange, banks and Lombards, registries for conveyance, beggars, ensurance, exportation of money [and of] wool, free ports, coins, housing, liberty of conscience, &c. The same being frequently applied to the state and affairs of Ireland*. London: printed for N. Brooke. 1662. In EW: 1-97.

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