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The New Economic Modelling for Rational Management Compensation

with SKAT, the Stages of Knowledge Ahead Theory of Risk instating Keynesian chronological time uncertainty effects

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Précis

There has been a disproportionate increase in the pay scales of the top percentiles in most advanced countries. In the US since the mid 1970s, for instance, the profit share has declined yet *relative to median wages*, in large firms CEO compensation has increased many multiples, Gordon (2005). Over this same era, the US had three massive market crashes, first the savings and loans fiasco, second the dotcom crash and third, the continuing global financial crisis. Each crash revealed that executives had been wildly overpaid in comparison to their economic contributions, yet in each crash congress decided to make good the difference by higher tax liabilities on the bottom 99%, not by appropriation of assets accumulated by these executives in excess of their revealed market productivity. Related income redistribution episodes have occurred in the UK and other European countries. In, Germany for instance inequality has risen dramatically since the early 1980s, but remains well below that of the US on account of its more just implicit social contract. Germany's implicit social contract has several strands, including its more progressive taxation system than that of the US and that, unlike in the US, for

* I thank Reinhard Selten for comments and for the background information on the position allotted to a trade union member on a key board in large German firms. This union post was to an important degree conceived and instituted by the Wilhelm Krelle of Bonn University in the early postwar years. He did so as a contribution to social justice and efficiency in the country's fledgling democratic mixed capitalist system. I much regret the passing in 2004 of Wilhelm Krelle who inspired also some of us from outside Germany, both in our scientific endeavours, in upholding noble concerns for the community at large, and in his being a beacon of the finest qualities of a human.

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sizable firms, there is a union representative in a top echelon of firm decision making. This US-German difference in firm rules hints at union information playing a useful role in maintaining productivity-related pay relativities.

Crashes followed by taxpayer bailouts reveal the inability of market participants to judge marginal product of executive officers. The errors of judgment are of many orders of magnitude. The claim from simplistic variants of the neoclassical expected utility so-called rational expectations economics that executive pay reflects marginal productivity and is in the interests of shareholders and the public are thus naïve and dangerous. The neoclassical bandaid of gearing executive pay to longer time spans can be a major step in the appropriate direction. But it sidesteps the exposed absurdities, logical contradictions and irrationalities that are inherent in *all* expected utility so-called rational expectations modelling. Further the moves in this direction in the UK and German legislation of 2009 have not been sufficient to avoid further increases in inequality between the pay of chief executive officers in 2010 and 2011. In Germany for instance, when wages essentially stagnated in 2010, the compensation packages of the chief executive officers rose 22% and are slated to have risen by an even higher percentage again by the end of 2012.

This paper first shows that in two key sectors of the economy, there already has been a breakdown in democracy and law and order, making new economic foundations for executive pay scales a matter of urgency. It offers ones based on a logical non-contradictory rational foundation that instates Keynesian chronological time uncertainty effects. These require the framework of SKAT, the Stages of Knowledge Ahead Theory of Risk. The paper then traces determinants of pay scales and wealth taxes that are rational and efficiency and economic growth enhancing, just and socially cohesive. It itemises instruments for any government to immediately implement these more desirable pay and taxation measures – and retrieve a sizable portion of the substantial unspent wealth accumulated by the executive class over the last three decades when ex-post the taxpayer's ex ante implicit social contract was broken as happens in all major financial crises. The final section considers inter-country competition for firm location when one country alone embarks on these reforms in CEO compensation and faces threats of firm withdrawals.

1 The Bubbles against Democracy, Law and Order

Extreme concentration of income and wealth results excludes democracy and law and order since it overly concentrates lobbying power and political campaign donations. The concentration effects alter government subsidies, taxes and regulations in economically unsustainable ways and generate bubbles where the profits go to the elite, with the losses in lives, health and money paid for by the rest of the population. These alterations have been facilitated by the rise of neoliberalism. Neoliberalism had enough adherents to cause the breakdown of the Bretton Woods exchange rate system around 1970, the rough date of the economic slowdown in growth in advanced economies. With the dislocation of the triping of oil prices twice in the 1970s, it was embraced abruptly around 1980 in virtually every western country, enabling forty plus year massive bubbles in two sectors, namely in the prescription drugs sector and the finance sector. The *profitability* of the big firms in these two sectors, and the *growth rates* of these two bubble sectors has exceeded by multiples that of other industrial sectors.

Each of these two bubbles corrupted the academic wing of their sector, that untarnished could have alerted governments and the media. Thereby they could have averted the damage to health, the needless deaths, the economic damage and the threats to democracy, and to law and order that has ensued. Corruption of academe did however occur on a wide scale, muting voices of reasonableness, and concern to maintain a viable economy and society. The upshot is a situation of unbridled capitalism in many ways more shocking than that of the Robber Baron era in wild US a century earlier, its so-called Gilded Age, but only gilded for the barons, an absurdly low income, security and social world for those not in this top 1/10th of 1% of the US population.

1.1 Big Pharma (the big firms in the Prescription Drugs Sector)

Over the last forty plus years, hundreds of thousands of prescription drugs trials have been conducted with massive taxpayer subsidies to pharamaceutical firms. Yet democratic wishes have been systematically flouted. Virtually not a single one of these trials has been conducted on the relevant patient set over the relevant time interval.

Thus virtually none of these taxpayer subsidized trials yield the information required for clinicians to know the adverse side effects of these drugs, or even the probable correct dosage, or whether fabulously priced drugs are effective at all. Instead, prescription drug overdoses cause more deaths per annum and than do road accidents, and are the main cause of liver failure (as a vast proportion of these drugs cause liver damage). But governments face such effective Big Pharma lobbying that they do not allow these shocking statistics to be made public. There are for instance confidentiality clauses in the UK and German regulations, and massive freedom of information hurdles in concerned citizens uncovering the facts in the case of the US. The upshot has been, as the UK Royal College of Physicians enunciated last year, a wholesale perversion of health care, and as many a country's finance minister and health insurer has noted, an unsustainable explosion in expenditures on inefficacious dangerous prescription drugs.

Efforts to curb in the top pharmaceutical firms in the world fraud and criminal activity (killing people needlessly) systematically fail. US judges and prosecutors for instance, lament that pharmaceutical executives do not take the law seriously, and instead regard the matter of paying fines for having broken the law (and killed lots of people simply in order to make higher profits) a cost of doing business. Big Pharma is by this millennium the sector with the highest criminality in the US, as measured by the fines levied for criminal and fraudulent activity.

1.2 *The Financial Sector*

In the financial sector, the breakdown in law and order is even more grave. Its lobbying power, campaign donations and occupation of almost every pertinent sector of the government has reached the point where it no longer faces prosecutions for its basic criminal and fraudulent activities. There was still some limited degree of law and order in the prior US macro crash, its Savings and Loans bust in the late 1980s, in which a sizable number of the miscreants went off to gaol, even if there were scandals of many flagrant legal violations resulting in not even a minute penalty, for instance for the upper echelons in the failure of Illinois Continental. The last swig of prosecutions were those of its New York Attorney Elliot Spitzer in the wake of the dotcom bubble bust, prosecutions that he undertook when the US federal government, under the sway of the financial sector, itslf undertook essentially zero fraud prosecutions. In the current crash of 2008 and continuing, by contrast, US Justice prosecution seem largely limited to insider trading cases. There are no US Justice prosecutions in the offing on the fraudulent issuance by the big investment banks of securities known by them to be too likely to fail, and at the core of the bubble and the financial crisis. Nor do such prosecutions seem likely in the future, since the incoming Obama administration has filled virtually every relevant regulatory post with someone whose fortune was made in enlarging the financial bubble, and has reappointed as chair of the US Federal Reserve Ben Bernanke. Ben Bernanke brokered a deal excluding the taxpayer rescued principal issuer of credit default swaps from prosecuting for fraud its principal client, Goldman Sachs and ignored the evidence on fraud at an epidemic level in the housing sector that was supplied to him the FBI and by concerned public organization figures such as Robert Gnaizda.

A charismatic figure might arise to reintroduce law and order into this sector. But the odds are against it. Each time such a figure reaches such a level of possible influence, to date he has been framed and forced to resign, framed seemingly by the financial sector, though this is to date unproven, other than circumstantially through the matter that the same illegal activity as that of the frame are widely reported as engaged in "on an industrial scale" by chief executive officers of the big banks with ready witnesses to hand, yet without prosecutions perhaps since the particular laws infringed are deemed by many New Yorkers to be inappropriate. Without a charismatic figure emerging who is invulnerable to entrapment by police paid by the financial sector, democracy is reduced to events like the wall street sit-ins that to date have achieved nothing, and are at risk of ending despite widespread democratic support since the city expenses to be met by tax payers rise, as does inconvenience for city livers.

2 The Need to Re-Scale Upper Echelon Compensation Packages

No fix to lawlessness in either the prescription drugs sector or the financial sector, can be lasting without reducing the future income and wealth scope of its top executives. Further, while these are the two biggest bubble sectors damaging western economies, some other sectors are growing in extents and directions that are unsustainable, against societal welfare, and bordering on criminality. To return society to more desirable ways, drastic changes are needed in upper echelon emoluments. Currently mainstream academic economists assist in justifying these emoluments in two ways.

One is to ignore income distribution and to focus all their teaching and research on other issues. Such an approach is unethical. Academic economists derive much or in many cases, all their income from taxpayers. Economists thereby have an obligation to be concerned about societal welfare. This obligation is routinely unfulfilled.

Societal distributional issues are sometimes ignored on the grounds that to care about such ethical issues is to be unscientific. The effort to split economics from values is investigated by Vivian Walsh in his 1996 book *Rationality, Allocation and Production* begins with Robbins efforts to dodge redistribution issues during the 1930s depression. Hilary Putnam in his 2000 book *The collapse of the Fact Value Distinction*, traces the effort of economists to maintain this split through adoption of logical positivism, and how such an effort faces internal inconsistencies since the facts of science are red with values. The choice of facts stems from values, as does their quantification, interpretation and integration into theories, cause effect chains and policy recommendations.

The other way economists sidestep the matter of rising wage disparities is to deem that chief executive compensation is what the market requires and that inference with this generates inefficiency. This line of thinking involves a notion that the market is efficient. This hypothesis warrants investigation, not the assumption of its correctness. It rests on so many unmet assumptions as articulated, eg in Stephen Marglin's 2008 book, *Economics The Dismal Science*, as to be implausible except by chance. To see if it is correct by chance, the way upper echelon compensation packages have changed would need to conform with rudimentary checks on conceivable productivity ratios between the median wage earner and one in this upper echelon.

3 The Failure of the Market Efficiency Hypothesis

Public revelation of data on the top echelon salaries started being mandated in many countries in the late 1980s in the expectation that shareholder anger would remove the obviously excessive compensation packages being meted out. The publications of these stratospheric compensation packages however had the reverse unintended effect. General shareholder power was too weak to curb the practice. Instead the published data were used by upper echelon managers to keep getting yet higher compensation packages – on the grounds that each could discover others upper echelon persons receiving even more (on one criterion or another). The rising concentration of income meant that by 1989, about the first year with extensive data, amongst those in the Fortune 500 companies the ratio of the compensation package of a CEO to the median wage in the US was already almost 200:1, and had risen threefold more by the time of the dotcom bubble bust. It then subsided down to just over 300:1 by 2003, only to rise again to over 600:1 by 2007. Did public revelation of such CEO data and the trebling of the ratio of CEO compensation packages over the next roughly 20 years constitute and improvement in market efficiency?

One way to judge this is by the macroeconomic effects. In western economies, the rise was accompanied by an unprecedented extent of public officials needing to avert risks of repetitions of the 1929 crash, with variable degrees of success. The answer from this evidence is thus no, as indicated by the academic wing of the financial sector. Its US society thereafter ceased its prior practice of awarding its prize for the best doctoral thesis to one "demonstrating" the efficient market hypothesis with special reference to CEO pay. Instead it started publishing articles on how firms could not afford these compensation packages.

On the macroeconomic data, we could indeed conclude that CEO contributions on average have been negative, that the higher pay scales has enticed into top positions those best at knifing in the back their more sensible and noble competitors for the post, and allowed those who take the most risks in breaking the law and flouting democracy to rise to the top. McCallum's biography of a middle class society accords with this conclusion. She traces business morals in Melbourne from the time of the crash of marvelous Melbourne, by far the richest city in the world by the 1880s, through to the new class of greed, the children of the far more ethical business leaders of the preceding generation.

Might this verdict against societal efficiency of those who top top firms in today's neoliberal economies be checked with micro data on the marginal product added to a firm by its CEO? We have objective measures we could use of differences between two employees in their running speeds, in their accuracy plus speed in adding numbers. But we have no simple objective measures of differential abilities of the median worker and the chief executive officer. This is for several reasons.

One reason is that each conducts an exceedingly complex set of tasks, and in conjunction with a complex and differentiated set of equipment and fellow workers. These factors alone preclude full accuracy.

The second major reason is that the value of the items produced by each cannot be instantly ascertained. The set of items each produces is aimed at netting the firm net revenues after costs, neither of which are instantly ascertainable, indeed in many cases take years before they could be known, and since estimating them would even roughly would involve vast sums, in reality rarely get even roughly estimated afterwards. Furthermore, from the viewpoint of society, since every firm receives a wide range of government assistance in the form of infrastructure, workforce training, government sponsored research passed on and so forth, the compensation of firm workers from the janitor to its CEO ought take account of how the items they produce assist society in general, not merely net revenues of that firm.

4 The Implications of Godlike Salaries

When no firm and no economist attempts to make any of these estimates, claims that pay ratios relate to productivity differences are thus subject to major levels of uncertainty. What is reasonable to conclude, however, is that to assert that a manager is fivefold more productive than the median worker is to attribute to the CEO quasi-godlike abilities, and to attribute to that CEO a tenfold higher productivity is to attribute to him godlike qualities.

Beyond a ratio of 10 to the median worker is however patently unreasonable. Ratios of 200:1 are more than absurd, and of 600:1 utterly ridiculous. No reasonable government should permit as tax deductions ratios in excess of 10:1. Further for such a ratio, the CEO is claiming godlike powers and thus should face godlike responsibilities and unlimited personal liabilities over the assets of himself and of his immediate family for cases found against him by an ombudsman without scope for legal trials and querying.

The godlike have the capacity to keep transparent their good behaviour and their value to the taxpayer. Society need not lose time or pay for costly lawsuits to extract from any who accept salaries of 10:1 or higher from any manager evidence that the one who took a godlike compensation package has feet of clay. Many a school child could do better than many such CEOs in these respects. The CEO in charge of Heathrow in December 2010 for instance had not prepared for a possible bad winter, and treated thousands of passengers disgracefully, worse than cattle, with to date zero compensation or even a verbal apology. In the same winter, in Bonn the German postal authority and Targa Bank failed in their public obligation to clear the snow in front of their buildings jeopardizing the public health and inhibiting many from going outside for days when small homeowners and an adjoining German National Radio station, whose CEO would earn a trifle of the compensation package of these other bodies, did sweep their streets. To extract a *personal* penalty from these CEOs for such misdeeds simply on the basis of a photo at Heathrow and a photo in Bonn of these sidewalks is fundamental. There should be no law case. Rather fines levied by the local community on a no-negotiation basis by a local ombudsman. There should be instant removal of their continuing compensation package down to below the godlike level of a 10:1 ratio.

Since society in general disagrees with the claims of CEOs and their subservient boards of directors that anybody has godlike qualities, governments should place a limit below 10:1 of the compensation package permitted to any CEO for tax deduction purposes. Since compensation packages above this limit damage democracy and law and order, governments should place higher tax rates on companies that either fail to reveal their compensation packages or who offer ones above this level. By trial and error, the higher tax rates can bring those compensation packages down to this level. The higher tax rates will also reduce the extent of undesirable takeovers of small and medium sized companies by those seeking to reduce competition and raise their own salaries. Thereby these higher tax rates will incidentally keep more locally situated CEOs who assist their local communities, and do not insofar as they engage in philanthropy, damage one locality, to the benefit of big agglomerations like New York and London, where these CEOs often prefer to live.

5 New Economic Foundations of SKAT, the Stages of Knowledge Ahead Theory of risk and uncertainty

Economists in academe have mostly been silent on the rise in CEO compensation packages since they lack foundations beyond those of neoclassical economics. Indeed they are routinely educated in the most empirically disconfirmed variant of neoclassical economics, the so-called rational economics branch wherein essentially no government action can improve market efficiency and welfare. Neoclassical economics claims to include risk and uncertainty through expected utility theory. In fact, for policy purposes such as tax deductions for the compensation package of a CEO, such analyses ignore risk entirely and analyse as if the (merely implicit) expectation is a certainty. This leaves academic mainstream economics in the position of claiming godlike certainty for what the market awards a CEO as efficient and benevolent for society, an untenable position of academics' propensity to construct maximizing models.

The logical inconsistencies in expected utility theory, its inability to grapple with risk and uncertainty, and the alternative logical framework of the author's SKAT, Stages of Knowledge Ahead Theory of risk and uncertainty, are documented in papers such as Pope (1983, 1985, 1995, 2000, 2001), in Pope, Leitner and Leopold-Wildburger (2007, 2009), and in Pope and Selten (2010/2011. 2011a and 2011b). The essence of SKAT is to recognize that risk and uncertainty involve sequential stages of knowledge ahead, since risk entails limited knowledge ahead, and this knowledge evolves as new things are learned. After a CEO makes a decision for instance, there is a delay before that CEO (and stockholders and the general public) knows its consequences. In the case of a decision to suppress adverse effects evidence in a drugs clinical trial, or to liberalise the financial markets, decades can elapse before many of the benevolent and adverse outcomes are learned. These intervening decades are in SKAT termed pre-outcome periods. When decades elapse, the current system of allowing extreme multiples of godlike salaries to CEOs means that many of these CEOs have vanished from the scene, making retrieval of their unwarranted inefficient compensation packages exceedingly difficult.

Governments on behalf of their citizens thus need to invoke commonsense. They need to deter the awarding of any godlike salaries. They also need to introduce measures to retrieve unspent portions of them whenever after the event, taxpayers are asked to face higher tax liabilities on account of any crimes plus any human errors committed by those who accepted these godlike salaries. No viable extent of simply deferring a portion of these compensation packages a few years can deal with the situation, even if such measures are a step in the right direction.

Likewise measures, such as that of Germany of imposing limited personal liability on such CEOs, is a step in the right direction, but insufficient. Unlimited personal liability of the CEO and his immediate family is required to address the damage of godlike CEO salaries, with its being illegal to have any insurance cover for any of these potential liabilities, and with the liabilities determined without law suits, but by ombudsmen. For as noted before the godlike can ensure transparency that their acts are just, warranted and non-damaging to societies and the economy.

Where godlike salaries have been awarded, or even when not awarded, ex post it may be revealed that CEOs damaged societies and economies. Instead of these resulting in a major nasty shock to the general taxpayer and citizen, the nasty surprise needs to be levied so far as retrievable, on unspent assets of upper echelon managers. No rise in government deficits or taxpayer bailouts should be contemplated without a concomitant seizure of such assets.

6 Inter-Country Competition

Countries going it alone in the above reforms will face a deluge of cries that they are losing talent and firm headquarters. The reforming country or countries should be unalarmed. CEOs damage economies while paid excessively, with moreover societally inefficient persons rising to upper echelons. There is a competition to the bottom in ethics with CEOs saying with some justice that if they are more law abiding their firm and they themselves miss out to those who are more unethical. It is the job of government to stop this inefficient excessive damaging competition. The reforming country will benefit by having better run firms. It uses its discriminatory tax power to deter firms from outsourcing their headquarters. It appreciates the need to severely downsize its bubble sectors for the good of its citizens. It is delighted if it can export the bubble components of the finance and prescription drugs sectors. It knows that most CEOs face extreme family problems in shifting countries and that many will accept a ten-fold reduction in compensation to avoid these costs. Indeed some too shocked at the evils, have already accepted this (by shifting into academe). It knows that its policies will reduce the damaging extent of international takeovers that reduce welfare, and lead to a reverse benevolent move of firms entirely under local control.

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Against Method. Outline of an Anarchistic Theory of Knowledge.Â Ehrenfest proved a theorem according to which the classical electron theory of Lorentz taken in conjunction with the equipartition theorem excludes induced magnetism.23 The reasoning is exceedingly simple; according to the equipartition theorem, the probability of a given motion is proportional to exp(-U /RT), where U is the energy of the motion.Â Newton retained his theory, eliminating the diffi-culty with the help of an ad hoc hypothesis: â€œthe reflection of a ray is effected, not by a single point of the reflecting body, but by some power of the body which is evenly diffused all over its surfaceâ€.16. In Newtonâ€™s case the qualitative discrepancy between the-ory and fact was removed by an ad hoc hypothesis. The uncertainty reduction theory, also known as initial interaction theory, developed in 1975 by Charles Berger and Richard Calabrese, is a communication theory from the post-positivist tradition. It is one of the only communication theories that specifically looks into the initial interaction between people prior to the actual communication process. The theory asserts the notion that, when interacting, people need information about the other party in order to reduce their uncertainty. In gaining this