Trust, Deep Trust, Productivity and Well-being (with a case study of the New Zealand paradoxes)

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ABSTRACT/PROPOSAL

Most economists would probably credit Adam Smith as the first prophet of the possibility of economic growth, with his elaboration of the productivity potential of specialisation by means of the division of labour.

But Adam Smith did not discover the principle of the division of labour. Indeed, his famous example in *The Wealth of Nations* of the productivity gains generated by splitting the manufacture of pins into eighteen specialised steps was lifted directly and without acknowledgement from the *Encyclopédie* of the French philosopher Denis Diderot, twenty five years earlier.

But what Smith may have been first to do was to examine the division of labour, not as a production engineer, but as an economist. He realised the extraordinary demands that exploiting the division of labour would put on the coordinating capacity of the economy, by vastly increasing the number and extent of transactions needed in the new system. And he noted that this, inevitably, would take workers and capitalists beyond the safe confines of kith and kin: they would now need to deal with strangers:

> In civilised society [man] stands at all times in need of the co-operation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons.

The wealth of nations would depend foremost on being able to predict, and trust, the behaviour of strangers: the importance to prosperity of 'generalised' or 'social' trust, and, in particular, trusting strangers to not destroy the long-run potential of the division of labour by succumbing to the short-run temptation to exploit hold-up opportunities.

However, Adam Smith's huge insight was, not so much forgotten as taken for granted for nearly two centuries. The social theory of productivity was side-tracked by the physical theory based on the accumulation of capital in the nineteenth century industrial revolution, and the mechanistic neoclassical production function in which this was analytically embodied in mainstream economics.

It wasn't until 1972 that the great modern economist Kenneth Arrow rekindled interest in social trust with a remark -- almost, an aside:

> Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can be plausibly

> argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence.

Even with Arrow's imprimatur, serious empirical work on trust had to wait another couple of decades until large-scale and widespread social survey data began to become available in the 1990s. And even then, the research was largely in thrall of the neoclassical model in that it nearly always (as Conal Smith [2020] points out) tried (not very successfully) to link trust to short-term economic "growth" rather than to the long-term differences in the *levels* of productivity and incomes that were the prime concern of both Adam Smith and Kenneth Arrow.

The present paper explores the role of social trust in three geographical contexts: the 'world' of nearly 150 countries; forty-seven of these which are first-world or developed economies; and the one of those which is the small, quite unusual country known as Aotearoa New Zealand. The two variables to which trust will be linked are productivity (per capita GDP) and happiness (self-reported well-being), and the implications for the relationship between productivity and well-being will be unveiled as a result.

Measuring and modelling trust

The 'trust question' has been most widely asked in 'waves' of the World Values Survey. The question asks individual respondents whether they agree or not to the proposition: "Generally speaking, most people can be trusted", with the country-level number being the proportion of the sample who do agree. Ninety eight countries have WVS data for at least one of the three waves since 1999. A similar question asked by the Gallup organisation has substantial overlap with the WVS numbers, and this is used to calibrate a WVS-equivalent trust score for the 43 countries which have Gallup but not WVS data. This procedure yields a data base for trust covering a much larger sample of countries than in any earlier published studies (for example Bjornskov and Meon [2015] cover 67 countries).

[The WVS began its work in the 1980s. Looking at the results from asking the trust question over the last four decades, we can see trust holding up quite steadily in the Western economies (increasing in the former communist countries of Eastern Europe), with the notable and much noted exception of the United States.]

The proportion of respondents answering "yes" to the trust question varies quite widely across countries: from 0.032 in the Philippines, to 0.737 in Norway. Can the cross-country differences be explained?

Yes they can, and quite spectacularly so, as shown in work by Bjornskov and others, who are able to model trust econometrically with some surprising regressors: whether a country is a constitutional monarchy; whether its native language does not allow the personal pronoun to be dropped; whether its dominant

religion is protestant Christianity, and the extent to which it is religiously monocultural, with all of these variables being positive for trust.

These factors are deep-rooted in history, and so are highly plausibly taken to be exogenous to current variables, as can the value predicted by the regression model – here estimated over a larger range of countries than in previous work – which will be termed 'Deep Trust'.

Trust and well-being

Gallup regularly ask the subjective well-being question: *on a scale of 0 to 10, how satisfied are you with your life so far?* The annual "World Happiness Report" (WHR) takes the answers to these questions and regresses them, across countries, on a core set of six variables: the natural log of per capita GDP; 'support' if in trouble; healthy life expectancy; 'freedom' (personal autonomy); generosity to strangers, and the (lack of) corruption in government and business.

This paper replicates the WHR model, and then adds Trust to the set of regressors. It is not significant: trust in itself appears not to be a direct source of well-being. But subsidiary regression models show that (a) trust is a significant determinant of each of the six happiness factors, and (b) deep trust is an even more significant determinant of SWB, in five out of six cases (corruption is the exception). That is, we can identify deep trust as an important deep (indirect) determinant of well-being.

Trust and productivity

The link between trust and per capita GDP is further investigated. Adding trust or deep trust to a standard production function model with physical and human capital as regressors does not improve the fit. But, deep trust in particular is a major determinant of the levels of physical and human capital in a country. The conjectures of Arrow and Smith are empirically supported: trust in strangers fosters the long-term investments that in turn raise productivity.

Further work

The trust-productivity model (currently estimated only with 2017 data) will be further developed. Both productivity and well-being models will be re-estimated on a database limited to the 47 'First World' or developed countries, and implications explored. The particular case of NZ, which has productivity puzzlingly low given its supposedly best-practice institutions and policies, and whose people are nevertheless happier than they 'should be', given their lower incomes, will be given special attention.