

Defra Evidence and Analysis Series

Paper 3

**A framework for understanding
the social impacts of policy and
their effects on wellbeing**

**A paper for the
Social Impacts Taskforce**

**Gemma Harper
Richard Price**

April 2011



**Government
Economic
Service**

Social Impacts Taskforce



Disclaimer

This is a Government Social Research and Government Economic Service paper assessing options for improving professional analytical advice provided to Ministers. It is not a statement of Government policy.

Department for Environment, Food and Rural Affairs
Nobel House
17 Smith Square
LONDON SW1P 3JR
Telephone 020 7238 6000
Website: <http://www.defra.gov.uk>

© Crown copyright 2011

Copyright in the typographical arrangement and design rests with the Crown. This publication (excluding the Royal Arms and departmental logos) may be re-used free of charge in any format or medium for research for non-commercial purposes, private study or for internal circulation within an organisation. This is subject to it being re-used accurately and not used in a misleading context. The material must be acknowledged as Crown copyright and the title of the publication specified.

For any other use of this material please apply for a Click-Use Licence for Public Sector Information (PSI) or core material at <http://www.opsi.gov.uk/click-use/psi-licence-information/index.htm> or by writing to:
Office of Public Sector Information, Information Policy Team, St Clements House 2-16 Colegate
Norwich NR3 1BQ Fax: 01603 723000
E-mail: licensing@cabinet-office.x.gsi.gov.uk

Cover design graffigwaith.com

PUBLISHED BY THE DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS

A framework for understanding the social impacts of policy and their effects on wellbeing

Gemma Harper & Richard Price¹

Purpose of this paper

This discussion document sets out the framework being adopted by the Social Impacts Taskforce of the Government Economic Service (GES) and Government Social Research (GSR), and proposed for use across UK government, for understanding the relationships between the social impacts of policies, their effects on the UK's underlying stocks of capital, and implications this has for wellbeing.

This is an analytical framework designed to improve our understanding of the relationships between different measures of policy impacts. This will help us to improve social cost-benefit analysis; to embed social impacts more firmly into government decision-making; and to interpret the policy implications of the aggregate measures of wellbeing being developed by the UK's National Statistician. The framework also links to other

¹ Gemma Harper is Chief Social Researcher and Richard Price is Chief Economist at the UK Department for Environment, Food and Rural Affairs (Defra). Richard Price co-chaired the Social Impacts Taskforce with Amanda Rowlatt, Chief Economist at the UK Department for Work and Pensions (DWP).

This note reflects work undertaken for the Social Impacts Taskforce of the UK Government Economic Service and Government Social Research. We are indebted to Vicki Harrison, Michelle Jobson, Joanna Konings and Joseph Lowe at HM Treasury, and to Mansi Konar and Charlotte Allen at Defra for their work in support of the Taskforce. We are grateful to members of the Taskforce for their comments on this framework, and in particular to Amanda Rowlatt who has co-chaired the group and provided valuable insight. The framework has also benefitted from discussion with Professor Paul Dolan at the London School of Economics and Professor John F. Helliwell of the University of British Columbia. The authors accept responsibility for any remaining errors.

developments of national accounts beyond traditional GDP measures, including, for example, environmental accounts.

Setting out the framework will help to resolve some of the debates about terminology which beset this field, so that we can focus on the substantive issue of understanding how best to use analysis of social impacts in developing advice for policymakers. Ultimately, the framework aims to develop the best advice for Ministers at the point at which policy choices are made.

Background

The Social Impacts Taskforce is an analytical group examining how departments in UK government can use a more systematic understanding of the social impacts of policies to give Ministers better advice on the effects of policy options. Social cost-benefit analysis aims to take account of all the positive (benefits) and negative (costs) impacts to all of society in deciding which policies are worth supporting. One of the factors that hinder departments from taking account of the full range of social impacts of their decisions is the absence of a common metric to value them.

There are numerous methods for valuing different benefits. Many costs and benefits (impacts) of policy decisions may be reflected – although imperfectly, depending on how efficient the market is – in market prices. For example the attainment benefit of education boosts the earning power of individuals. There are markets for some aspects of social impacts, for example, the impacts of crime in relation to insurance premiums, but these market values a) may not capture the full cost to society of crime; and b) may not be taken into account by a department whose objective may be to maximise educational attainment rather than reduce crime. There are also many impacts which are not explicitly traded

in markets, or do not have 'dedicated' markets, and are therefore not currently reflected in market prices, for example, the effects of education on reducing crime.

Consequently, we have a spectrum where at one end, market values can approximate reasonably well for social impacts, at the other some social 'goods' are not traded and have no market price on which to base a value, and in the middle we have goods and services whose social value is imperfectly reflected in market price. We are interested in all the results of government policy that society has reason to value, and all such impacts should feature in policy appraisal. For those impacts for which market prices are available, the Treasury's Green Book² recommends that market prices are employed to represent the opportunity cost of the resource involved. Inclusion of non-market impacts is more challenging and very often overlooked, hence the focus of the Taskforce's work.

Part of the challenge is to find ways of integrating market and non-market impacts into a given appraisal. Progress has been made in some areas, particularly those within the focus of particular departments, but in others we have work to do, for example, impacts upon social capital, and inter-programme impacts such as healthcare impacts upon employment, education and crime.

Drawing on the earlier *GES Review of the Economics of Sustainable Development*³, which identified ways to assess the environmental, social and economic sustainability of policies, the Taskforce developed a

² HM Treasury: The Green Book: Appraisal and Evaluation in Central Government, Treasury Guidance. (London, 2003) http://www.hm-treasury.gov.uk/data_greenbook_index.htm

³ Richard Price, Chris Durham, and JY Chan (2010). *GES Review of the Economics of Sustainable Development*. Defra. London. <http://www.defra.gov.uk/evidence/economics/susdev/>

framework which is based on a 'capitals approach'. The 'capitals approach' emphasises sustainability⁴ in cost-benefit analysis, which usually focuses on the flows. This is important in terms of whether the stock of wealth-creating and wellbeing-enhancing assets we pass on to future generations is better or worse than what is available to us today, and is a key analytical component of mainstreaming sustainable development.

Capitals approach

Ensure that the stocks of capital (produced, human, social, natural) are maintained so that the potential for wellbeing is non-declining over time.

In the Taskforce's framework, assessing the sustainability of policy or investment options takes a broad view of wellbeing and incorporates all forms of capital, including produced, human, social and natural. We have focussed on understanding the broad social impacts of policy, drawing on analysis using a range of techniques to quantify and to value them in a social cost-benefit framework. However, our work to capture impacts on wellbeing does not cover all aspects of social value, in particular, at this stage it excludes considerations of natural justice - winners and losers, and of distributional fairness - how wellbeing is distributed across society.

The Taskforce found that UK government departments, using the Treasury's Green Book framework for appraisal of policy and investment options, typically draw on evidence on a wide variety of social impacts of policies, and use this routinely in advice provided to Ministers. However, the Taskforce also identified the need to share knowledge about how the different parts of government measure and value the social impacts of

⁴ Sustainable development is development that ensures non-declining per capita national wealth by replacing or conserving the sources of that wealth; that is, stocks of produced, human, social and natural capital (OECD Glossary of Statistical Terms: <http://stats.oecd.org/glossary/detail.asp?ID=6360>)

their policies, and to improve consistency in definitions, methods of valuation, and standards of policy evaluation.

Social Impacts

The capitals approach requires that we define social impacts so that we can identify, assess and use the analysis of social impacts in social cost-benefit analyses of policy options. For the purposes of assessing the impacts of government policies, we define social impacts as encompassing marketed and non-marketed goods and services, but focus on impacts on society which are not traded explicitly and are essential for capturing the true costs and benefits of policies, including their effects on wellbeing.

Social impacts reflect changes to attitudes, values, beliefs and behaviour, and contribute to wellbeing. Social impacts should be assessed against appropriate policy indicators, whether qualitative or quantitative. Including analysis of social impacts enables us to consider the widest possible range of impacts that policies can have on individuals, communities and society.

Social impacts

Social impacts of government policies are impacts on society, which encompass marketed and non-marketed goods and services and are essential for capturing the true costs and benefits of policies.

Figure 1: Stocks and flows framework for capitals, goods and services, and wellbeing

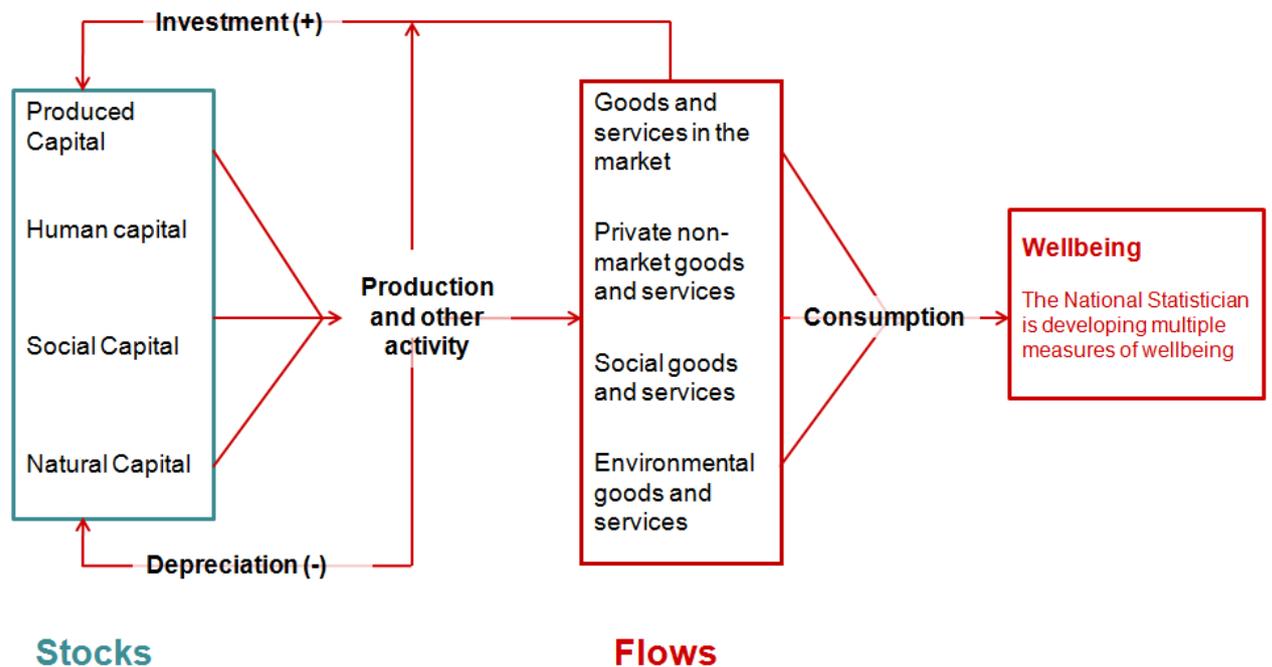


Figure 1 sets out the conceptual framework developed by the Taskforce as the basis for understanding the relationships between the different components of capital, the production of flows of goods and services using the stock of capital; the consumption or experience of those goods and services by society, and their combined impact on wellbeing. Both production and consumption of goods and services have social impacts. We do not attempt to quantify these in this paper, but we know that quantification of the different components is variable, and the Taskforce will assess in which areas our understanding most needs improvement, identifying priorities for better analysis.

The left-hand side of the framework sets out the different components of the stock of capital:

Produced capital is the stock of manufactured means of production, such as machinery, equipment and structures, but also non-production-related

infrastructure, non-tangible assets, and the financial assets that provide command over current and future output streams. Also referred to as "human-made" or "manufactured" capital⁵.

Natural capital is defined by OECD as both the stock of natural assets in their role of providing natural resource inputs and environmental services for economic production⁶; and as the renewable and non-renewable resources that enter the production process and satisfy consumption needs, as well as environmental assets that have amenity and productive use, and natural features, such as the ozone layer that are essential for supporting life.⁷ This has been extended by the concept of ecosystem⁸ services - **the benefits provided by natural ecosystems which contribute to making human life both possible and worth living.** Examples of ecosystem services include products such as food and water, regulation of floods, soil erosion and disease outbreaks, and non-material benefits such as recreational and spiritual benefits in natural areas.⁹ **The stock of natural assets can therefore be regarded as providing flows of ecosystem goods or services.**

⁵ See the OECD Sustainable development glossary:
http://www.oecd.org/glossary/0,3414,en_2649_37425_1970394_1_1_1_1,00.html#1969924

⁶ OECD Glossary of Statistical Terms:
<http://stats.oecd.org/glossary/detail.asp?ID=1730>

⁷ OECD Sustainable development glossary:
http://www.oecd.org/glossary/0,3414,en_2649_37425_1970394_1_1_1_1,00.html#1969924

⁸ The most widely used definition of an **ecosystem** is that adopted by the Convention on Biological Diversity (CBD) and the Millennium Ecosystem Assessment (MA): **"A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit"**.

⁹ UK National Ecosystem Assessment – ecosystem assessment concepts.
<http://uknea.unep-wcmc.org/EcosystemAssessmentConcepts/EcosystemsandBiodiversity/tabid/102/Default.aspx>

Human capital is 'the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being.' (OECD, 2001:18). It is owned by individuals and also consists of personal attributes, for example, strength and intelligence that contribute to earning potential (Halpern, 2005)¹⁰.

Social capital is the stock of 'social networks together with shared norms, values and understandings that facilitate cooperation within or among groups'¹¹ (Cote and Healy, 2001). The presence of social capital helps individuals to achieve things in collaboration with others in society because communities function with a greater degree of understanding and trust, among other things.

The stocks of produced, human, social and natural capital yield flows of goods and services. This is where production or activity occurs in the framework. Goods and services may flow directly from one kind of asset alone, but in reality will often be the result of a combination. For example, sustainable production in agriculture is a combination of environmental goods, 'know how' and the dissemination of knowledge through farming communities. In other words, it emanates from the stocks of natural, human and social capital. The efficiency with which these stocks are used – combining produced, natural, human and social capital to produce flows of benefits to society in a way which makes most efficient use of these scarce resources – is the problem at the heart of policy appraisal and evaluation, and that is why it provides a focus for the improvements in Green Book guidance envisaged by the Social Impacts Taskforce.

¹⁰ ONS (2010) has produced estimates of the economic value of the UK's human capital stock.

¹¹ Adopted from OECD definition for use across all UK Government Departments by ONS (2002).

The balance of asset depletion and investment determines the extent to which the stocks of produced, human, social and natural capital are maintained. In principle, where stocks are finite, full depreciation is possible. As the condition of any part of the stock diminishes, there is an increase in the risk that we will not be able to continue to use its services at current levels. This jeopardises our ability to sustain the existing pattern and cost of social and economic activity.

In the centre and the right-hand part of the framework in Figure 1, wellbeing flows from goods and services when they are experienced or consumed. There is a key distinction between two elements associated with experience: i) whether the goods and services can be or are experienced in the first instance and ii) what the subjective experience of those services is. For example, the impact of education on wellbeing will be a product of both access to it (and therefore whether policy improves access in the first place by removing barriers, etc.) as well as the subjective experience of the education received as determined by the policy that has shaped its provision.

For economic and some social and environmental impacts, well-established methods already exist for assessing the effect (and sometimes the value) of policy changes. To allow comparisons between different policy options, and to help to assess the impact of policy on wellbeing overall, methods for assessing specific social impacts should be consistent across departments and be able to contribute to wider measurements, for example of stocks of social capital or levels of wellbeing.

Assessing social impacts before implementation of a policy means trying to determine what difference a policy will make to people's lives. It requires us to predict the likely impacts of potential policies on the quality of life of the population and sub-groups in the population, and

doing so helps those designing policies to tailor them more specifically for different parts of the population, and so to make them more effective in achieving improvements in wellbeing. Many policies are specifically designed to have social impact; and full consideration of social impacts may identify possible unintended consequences.

The range of social impacts which can be considered in policy development is broad and complex as many overlap and interact. The Taskforce has aimed to expand the range of the full social impacts that economic and social research analysis can value and evaluate. Social (and environmental) impacts should be considered for all policies, even where the explicit aim of a policy is economic impact - the social context may affect the policy and the policy may affect the social context. We recognise that social costs and benefits might not always be readily monetised or quantified and that some social impacts this may rely on a qualitative assessment. Nevertheless, consistent and robust analysis of social impacts will broaden our understanding of the intended and actual outcomes of policies and their effects on wellbeing.

Wellbeing

There are a number of factors which affect wellbeing, which are accounted for in economic and environmental valuation. There are also a number of non-material factors which may affect wellbeing, identified in McAllister (2005), including personal relationships (e.g. Helliwell and Putnam, 2004); social and community relationships (e.g. Keyes, 1998), employment (e.g. Layard, 2005); and political regimes (e.g. Donovan and Halpern, 2003). The empirical basis for the relationship between these factors and wellbeing is not reviewed here, however, various definitions agree (for example, Dolan and White, 2006; Defra; 2007; Stiglitz, *et al.*, 2009, etc.) that wellbeing is multi-dimensional, and may reflect contributions of:

- material living standards
- health
- education
- personal activities
- political voice
- social connections
- the environment
- a sense of security
- a sense of freedom
- the opportunity to engage effectively with others, especially for a good purpose.

Understanding the stocks of capital and flows of goods and services in the economy and society can help us to understand how social impacts affect wellbeing.

The UK is already playing a leading role in the global debate on national wellbeing measures to complement GDP. Across government in the UK, wellbeing measures play a major part in policy design and in helping Ministers to choose amongst alternative approaches. From health to social care, from education to preventing crime, policy measures are developed using methods which draw in the best evidence and analytical thinking from across government and academia.

The Green Book requires the social costs and benefits of all new policies emerging across government to be carefully assessed in advising Ministers. The 'macro-level' measure of wellbeing which the ONS is developing will form part of the wider policy debate, but the main focus of Green Book guidance is on the assessment of individual policies, programmes and projects. These are normally assessed in terms of the micro-level costs and benefits that they bring to society, rather than their effects on macro measures such as GDP or national wellbeing.

In November 2010, the Prime Minister asked the UK's National Statistician Jil Matheson to lead a national debate on measuring the nation's wellbeing. The National Wellbeing Project aims to provide a fuller picture of 'how society is doing' than is given by economic indicators such as GDP.¹² This work will improve existing measures such as the measurement of public service output following the Atkinson Review and place more emphasis on existing measures such as Net National Income, measures of income and wealth distribution. It will also develop broader measures, 'quality-of-life' indicators, assess the impact progress has on the environment, and will be informed by the work of the Social Impacts Taskforce.

The issue of wellbeing and how it is measured is increasingly recognised around the world, particularly stimulated by the Stiglitz Commission

¹² <http://www.ons.gov.uk/well-being>

Report (2009)¹³. One recommendation from the Report was that national statistics offices should gather information on people's views of their own wellbeing. These more subjective measures will supplement existing and new objective measures of wellbeing to provide a fuller picture of the UK's wellbeing. Analysts are constantly developing new and better ways to understand how policy and public services affect wellbeing, and the work of the Social Impacts Taskforce is a key component of this.

¹³ Stiglitz, J., Sen, A., Fitoussi, J-P. (2009), Report by the Commission on the Measurement of Economic Performance and Social Progress.
<http://www.stiglitz-sen-fitoussi.fr>

The social impacts of policy

The Social Impacts Taskforce commissioned a study to identify, categorise and highlight consistencies and inconsistencies in the way UK government departments assess social impacts. The initial mapping exercise identified social impacts in seven key policy areas: access to services¹⁴, crime, culture and heritage, education, employment, environment and health.

The study found a variety of guidance on assessing different kinds of social impacts across government (for example, Summary Guidance on Social and Distributional Impacts of Transport Interventions, DfT, 2010), and that this was being used to some extent in developing and assessing policy options. The mapping exercise also revealed both consistencies and inconsistencies in the way in which the same social impacts were being assessed across government departments; and identified key gaps which needed to be addressed.

We recognise that there may sometimes be legitimate reasons for differences in the treatment of impacts based on differences in perspective or context, which may relate more to valuation of impacts (for example, the employment impacts of employment interventions versus the employment impacts of crime). However, there are also differences which reflect differences in the evidence base for quantifying impacts, in other words, inconsistency in standards of evidence of evaluation of policy effectiveness, which may be more problematic.

The Taskforce has subsequently commissioned a series of workshops based on the mapping exercise, identifying the best existing approaches and ways in which their use can be made more consistent across government. In parallel, the Taskforce is assessing the relationships

¹⁴ Refers to accessibility in the broadest sense and therefore covers access to employment, social networks, leisure etc.

between specific social impacts (flows) and the stock of social capital; and is assessing the relationship between high-level wellbeing analysis and the cost-benefit assessment of individual policies. These will form the basis for a series of guidance documents on assessing social impacts as supplementary guidance to the Green Book on appraisal and the Magenta Book¹⁵ on evaluation.

We hope that the framework developed here, setting out the relationships between the different kinds of capital, flows of goods and services and wellbeing, helps to identify the areas in which additional evidence and analysis is needed to make sure that the analysis of social impacts of policy becomes progressively more robust. This will be reflected in the conclusions of the Social Impacts Taskforce later in 2011.

Gemma Harper and Richard Price

April 2011

¹⁵ Cabinet Office (2003). *The Magenta Book: Guidance Notes for Policy Evaluation and Analysis*. Cabinet Office, London.
<http://www.civilservice.gov.uk/my-civil-service/networks/professional/gsr/resources/Introduction-the-magenta-book.aspx>

Bibliography

- Cabinet Office (2003). *The Magenta Book: Guidance Notes for Policy Evaluation and Analysis*. Cabinet Office, London.
- Cote S. and Healy, T. (2001) *The Well-being of Nations. The role of human and social capital*. Organisation for Economic Co-operation and Development, Paris: OECD.
- Defra, (2007). Common Understanding of Wellbeing for Policy. London: Defra
<http://www.defra.gov.uk/sustainable/government/what/priority/wellbeing/common-understanding.htm>
- Defra, (2010) Understanding and influencing behaviours: a review of social research, economics and policy making in Defra. London: Defra
<http://www.defra.gov.uk/evidence/series/documents/understand-influence-behaviour-discuss.pdf>
- Department for Transport. (2010). Summary Guidance on Social and Distributional Impacts of Transport Interventions. London: Department for Transport. <http://www.dft.gov.uk/webtag/documents/project-manager/pdf/unit2.13d.pdf>
- Dolan, P. and White, M. (2006). Dynamic well-being: Connecting indicators of what people anticipate with indicators of what they experience. *Social Indicators Research*. Vol: 75, Pages: 303-333.
- Donovan, N. and Halpern, D. (2002). *Life Satisfaction: the state of knowledge and implications for government*. Cabinet Office analytical paper, December 2002. London: Cabinet Office
<http://www.strategy.gov.uk/downloads/seminars/ls/paper.pdf>
- Halpern, D. (2005). *Social Capital*. Cambridge: Polity Press.
- Helliwell J. and Putnam R., (2004). The Social Context of Wellbeing. In Huppert, F, Baylis, N and B Keverne (eds.) (2005) *The Science of Wellbeing*. Oxford: Oxford University Press.
- HM Treasury (2003): *The Green Book: Appraisal and Evaluation in Central Government*, London: HM Treasury.
- Jones, R. And Chiripahura, B. (2010). Measuring the UK's human capital stock. *Economic and Labour Market Review*. Nov 2010.
www.statistics.gov.uk/articles/elmr/elmr-nov10-jones.pdf

Keyes, C. (1998). Social Wellbeing. *Social Psychology Quarterly*. V 61, no 2.
Layard, R. (2005). *Happiness: lessons from a new science*. London: Allen Lane

McAllister, F. (2005). *Wellbeing Concepts and Challenges*. Discussion Paper prepared for the Sustainable Development Research Network.
http://www.sd-research.org.uk/wp-content/uploads/sdrnwellbeingpaper-final_000.pdf

Office for National Statistics, (2002). *The measurement of Social Capital in the United Kingdom.*, London: Office for National Statistics.
<http://www.ons.gov.uk/about-statistics/user-guidance/sc-guide/index.html>

Organization for Economic Cooperation and Development (OECD). (2001a). *The well-being of nations: the role of human and social capital*. Paris: OECD.

Richard Price, Durham, C. and Chan, JY. (2010). *GES Review of the Economics of Sustainable Development*. Defra. London.

Putnam, R. (2000) *Bowling Alone - The Collapse and Revival of American Community* New York: Simon & Schuster.

Stiglitz, J., Sen, A., Fitoussi, J-P. (2009), Report by the Commission on the Measurement of Economic Performance and Social Progress.
www.stiglitz-sen-fitoussi.fr

Zak, P. J. & Knack, S., (2001). Trust and Growth. *Economic Journal*. Royal Economic Society, vol. 111(470), pages 295-321.