Da importância do capital verde e da sua consideração contabilística e estatística

Jorge Vasconcelos

INSTITUTO NACIONAL DE ESTATÍSTICA
STATISTICS PORTUGAL
1935-2015

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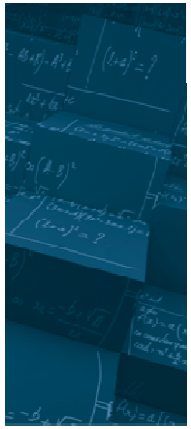
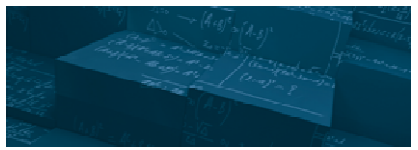


TÓPICOS

- Introdução
- Capital natural e novos modelos
- Reforma da Ficalidade Verde
- Previsão ?



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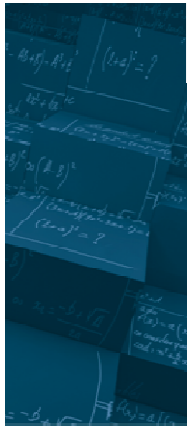
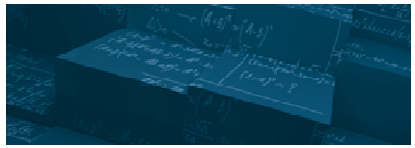


INTRODUÇÃO

- Data / Information
- “Governing by numbers”
- Contabilidade / Estatística
- Reforma do Estado ?



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Data = Burden

Information = Asset

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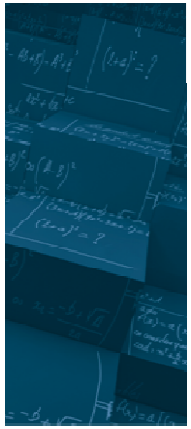


Governing by numbers

Accounting, Organizations and Society, Vol. 16, No. 7, pp. 673–692, 1991.
Printed in Great Britain

0361–3682/91 $3.00+.00
Pergamon Press plc

GOVERNING BY NUMBERS: FIGURING OUT DEMOCRACY*

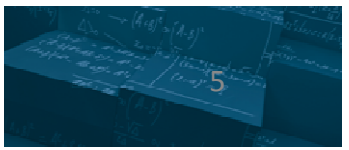
NIKOLAS ROSE
Goldsmith's College, University of London

Abstract

This review essay considers the relations between quantification and democratic government. Previous studies have demonstrated that the relation between numbers and politics is mutually constitutive: the exercise of politics depends upon numbers; acts of social quantification are politicized; our images of political life are shaped by the realities that statistics appear to disclose. The essay explores the specific links between *democracy*, as a mentality of government and a technology of rule, and quantification, numeracy and statistics. It argues that democratic power is *calculated* power, *calculating* power and requiring citizens who *calculate about* power. The essay considers the links between the promulgation of numeracy in eighteenth-century U.S. and programmes to produce a certain type of disciplined subjectivity in citizens. Some aspects of the history of the census are examined to demonstrate the ways in which the exercise of democratic government in the nineteenth century came to be seen as dependent upon statistical knowledge and the role that the census had in "making up" the polity of a democratic nation. It examines the case of National Income Accounting in the context of an argument that there is an intrinsic relation between political problematizations and attempts to make them calculable through numerical technologies. And it considers the ways in which neo-liberal mentalities of government depend upon the existence of a public habitat of numbers, upon a population of actors who calculate and upon an expertise of number. Democracy, in its modern mass liberal forms, requires numerate and calculating citizens, numericized civic discourse and a numericized programmatics of government.

Numbers have an unmistakable power in modern political culture. The most casual reader of newspapers or viewer of television is embraced within the rituals of expectation, speculation and prognostication that surround the public pronouncement of politically salient numbers. Of course, there are many sorts of political numbers in advanced liberal democratic capitalist societies. A superficial classification might distinguish four. Firstly, there are the diverse numbers that are connected with who holds political power in democratic nations. Electoral districts apportion persons according to numerical criteria. Elections and referenda count votes. Executive powers are related to numerical calculations of majorities and minorities. Numbers here are an intrinsic part of the mechanisms for conferring legitimacy on political authority. Secondly, there are the numbers that link government with the lives of the governed outside the electoral process. Opinion polls calibrate and quantify public feelings. Social surveys and market research try to transform the lives and views of individuals into numerical scales and percentages. Numbers here act as relays promising to align the exercise of "public" authority with the values and beliefs of citizens. Thirdly, there are the numbers that are deployed within the perpetual judgement that today is exercised over political authority and its stewardship of national life. The balance of payments, the gross national product and the money supply pass in and out of favour as the measure of the success of

* An essay review of Patricia Cline Cohen, *A Calculating People: the Spread of Numeracy in Early America* (1982) and William Alonso & Paul Starr (eds), *The Politics of Numbers* (1987).



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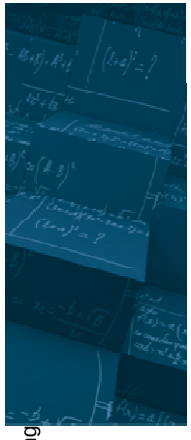

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ACCOUNTING & BOOKKEEPING 1494

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THE PROBABILISTIC REVOLUTION 1800-1930

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THE ACCOUNTING COUNTER-REVOLUTION NOW

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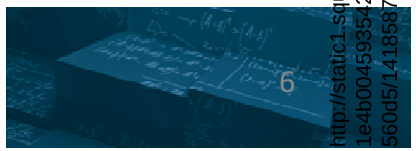

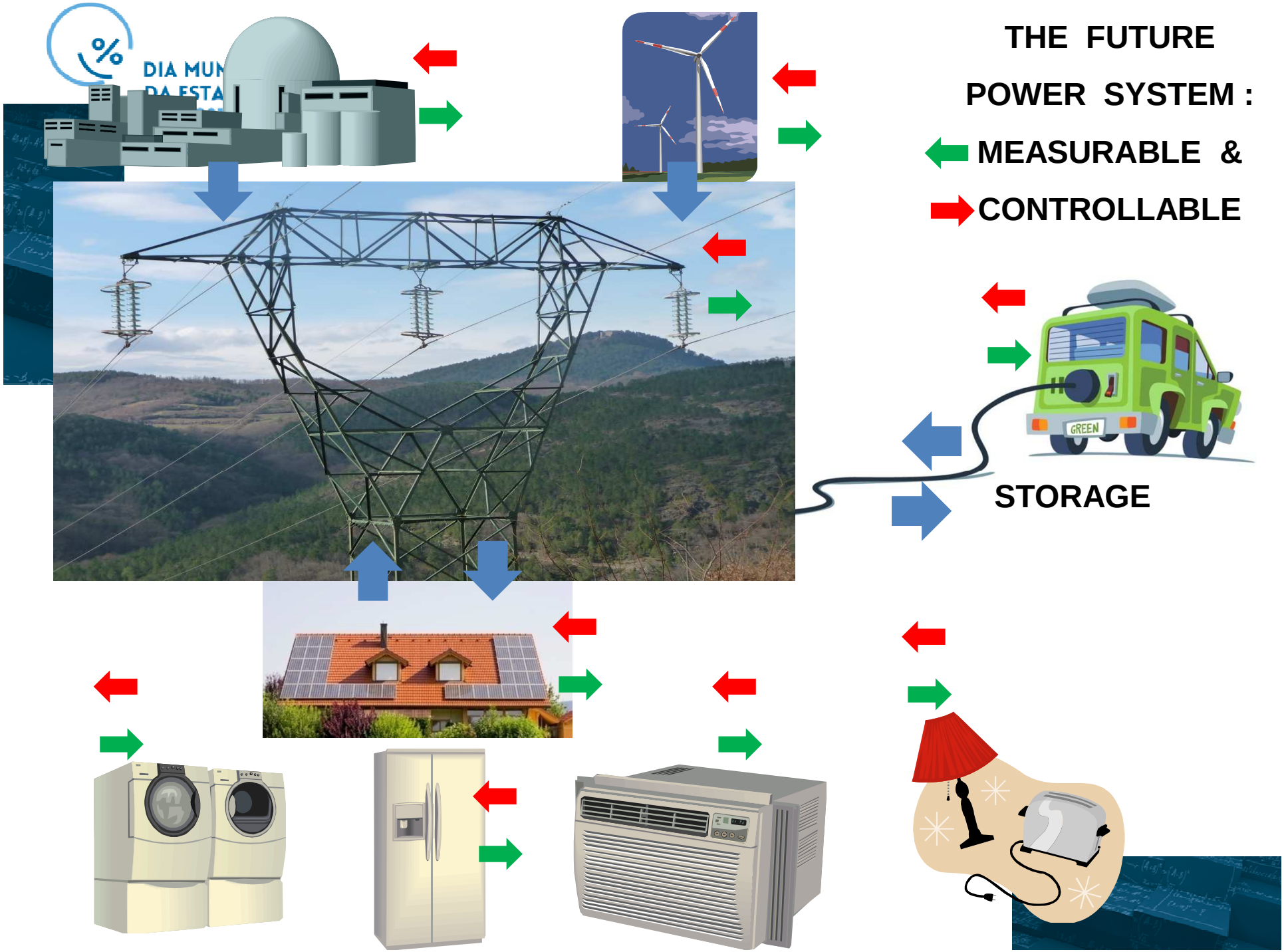
THE FUTURE
POWER SYSTEM :
MEASURABLE &
CONTROLLABLE
GREEN
STORAGE

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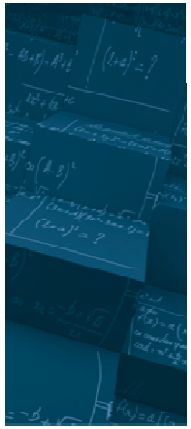


DATA COLLECTION → ANALYSYS → EVIDENCE-BASED POLICIES → MONITORING → IMPACT ASSESSMENT

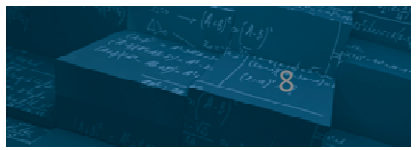
4

A racionalização das políticas públicas depende, em grande medida, da qualidade da informação e da qualificação dos trabalhadores na administração pública.

O Estado português recolhe, armazena e processa muita informação; contudo, essa informação é dispersa, inconsistente, desactualizada, incompleta, bem como dificilmente acessível, inclusivamente dentro do próprio Estado.

54 | PÚBLICO, DOM 15 FEV 2015

Cinco hipóteses sobre o poder e eficácia das reformas



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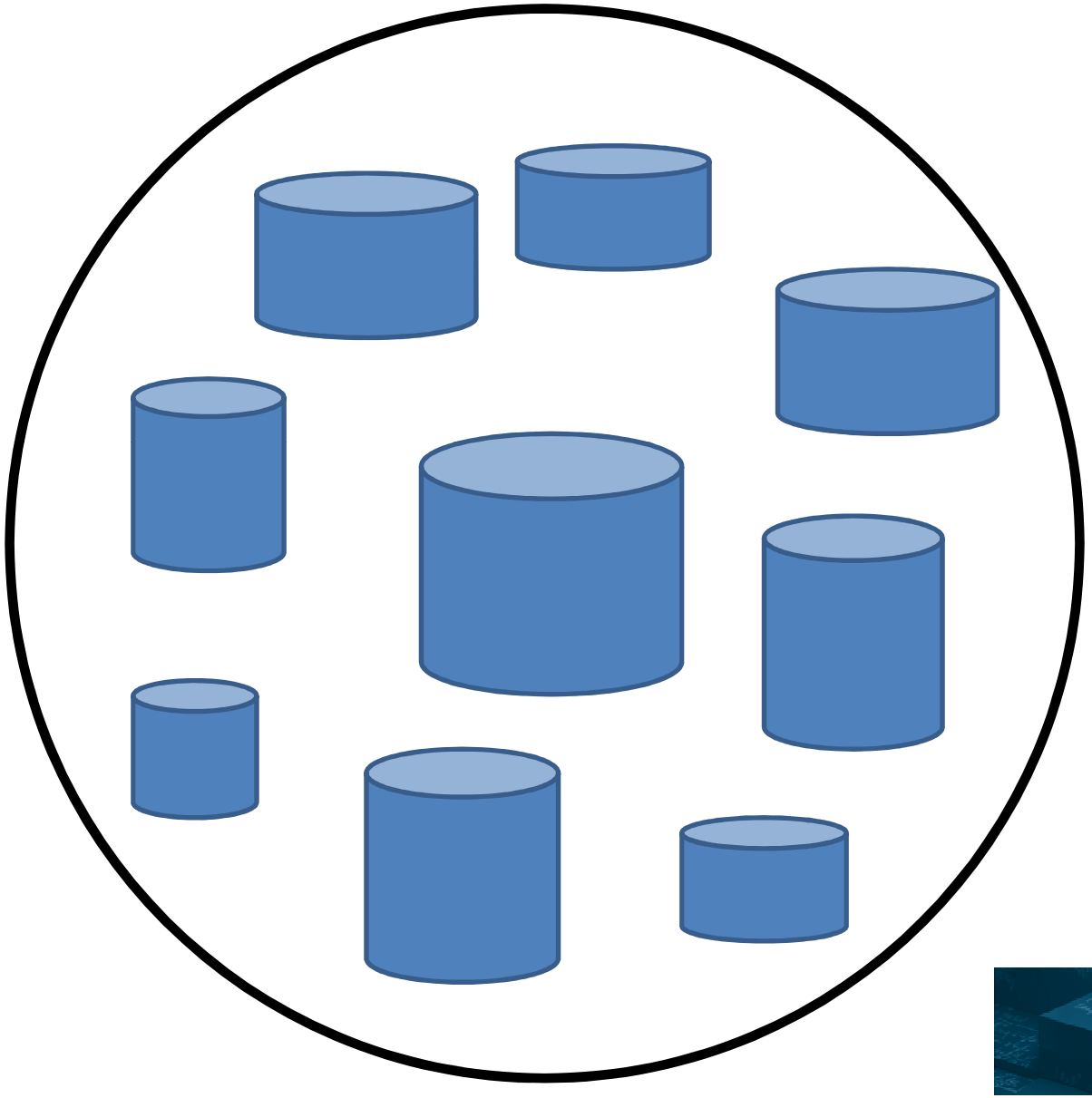
NATURAL CAPITAL - RESOURCES



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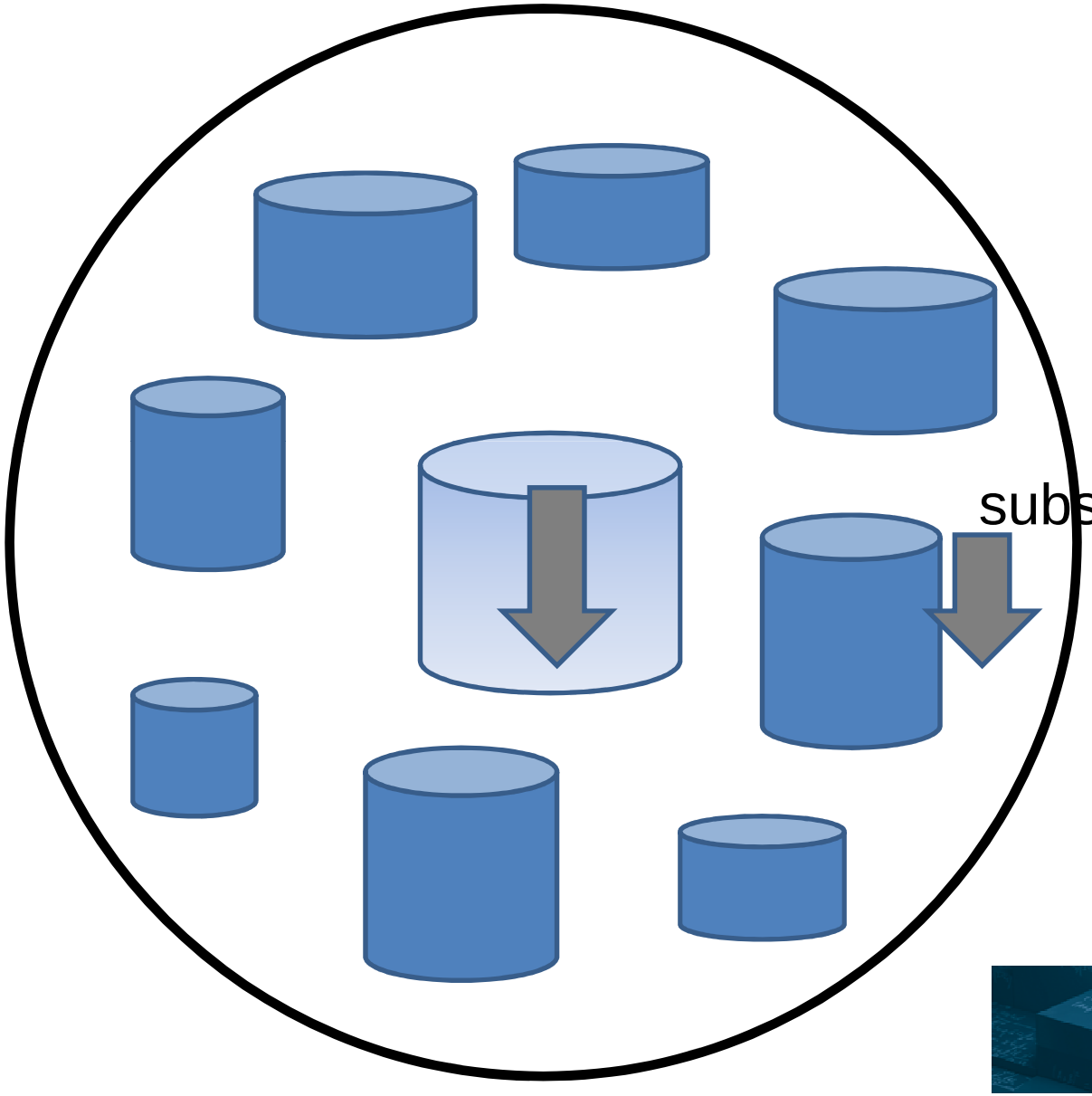

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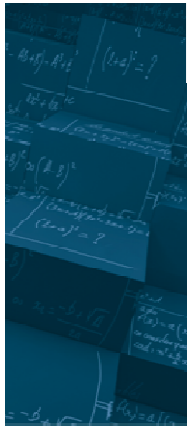
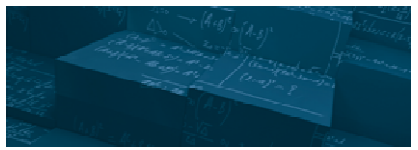


RECURSOS NATURAIS

A economia tradicional sabe avaliar a escassez dos recursos naturais através do conceito de "renda".

Mas...



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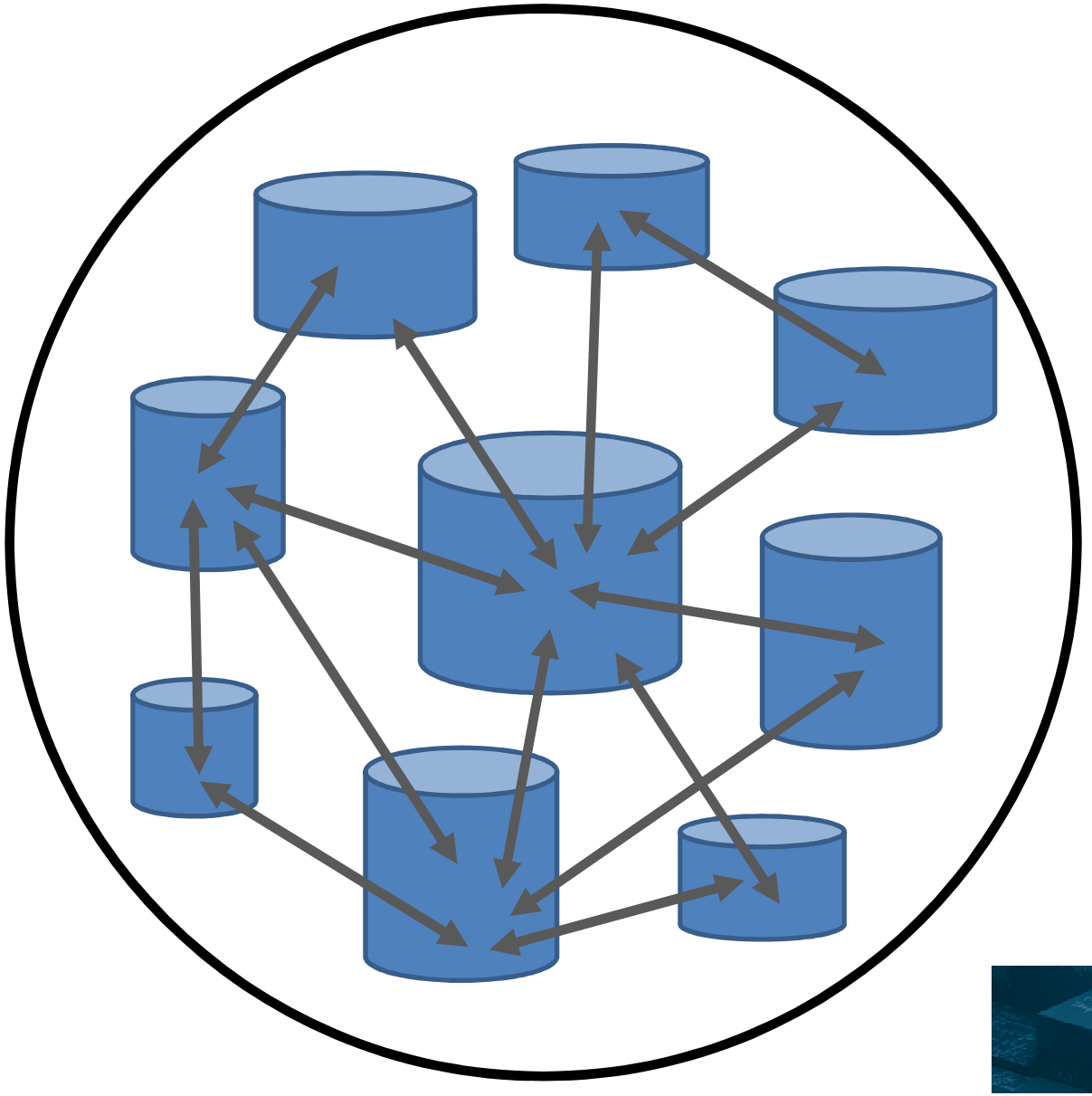
NATURAL CAPITAL - SERVICES



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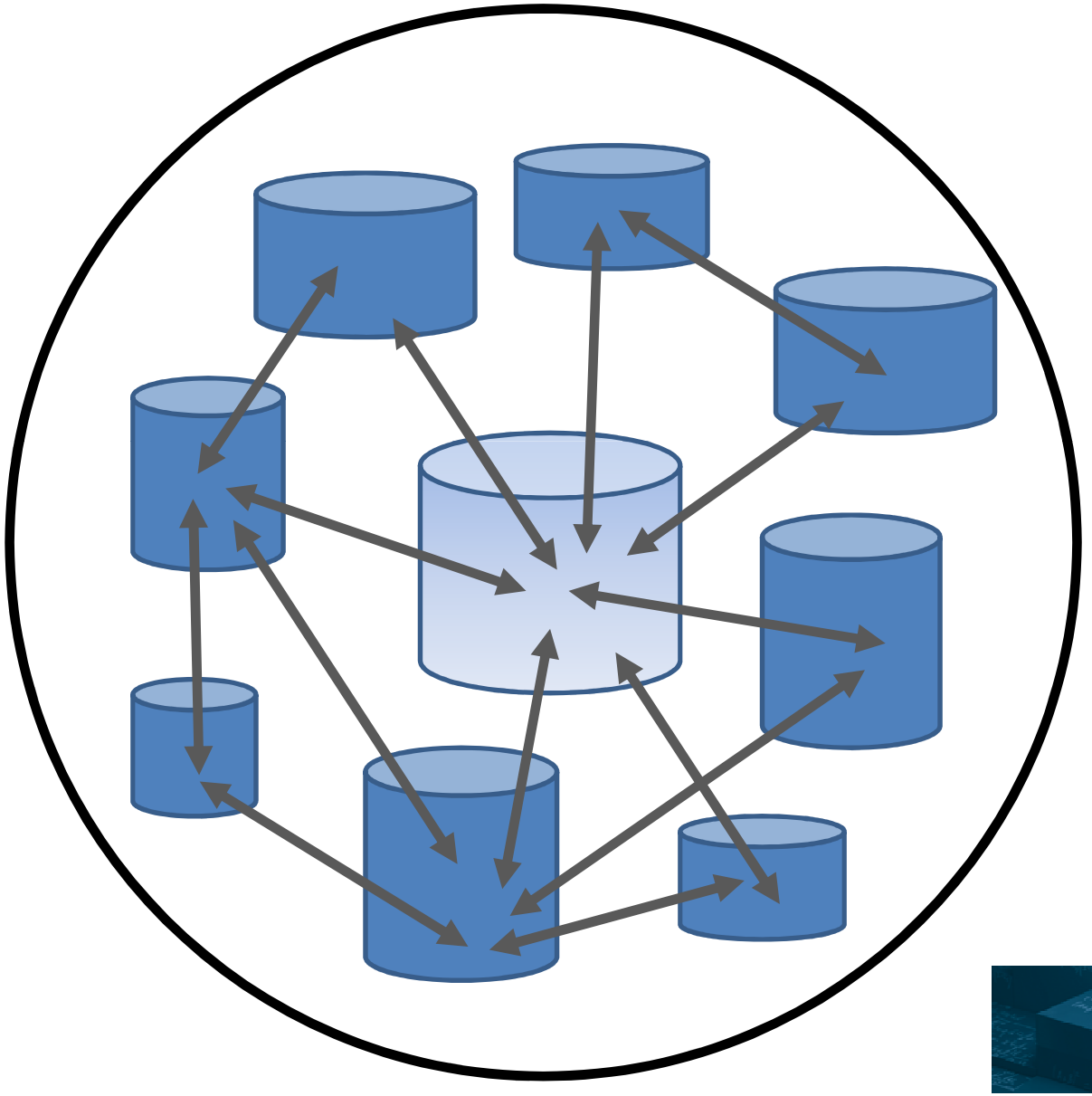

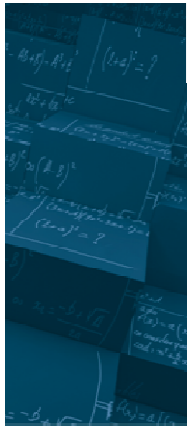

Is Growth Obsolete?

WILLIAM D. NORDHAUS AND JAMES TOBIN

YALE UNIVERSITY

A long decade ago economic growth was the reigning fashion of political economy. It was simultaneously the hottest subject of economic theory and research, a slogan eagerly claimed by politicians of all stripes, and a serious objective of the policies of governments. The climate of opinion has changed dramatically. Disillusioned critics indict both economic science and economic policy for blind obeisance to aggregate material "progress," and for neglect of its costly side effects. Growth, it is charged, distorts national priorities, worsens the distribution of income, and irreparably damages the environment. Paul Erlich speaks for a multitude when he says, "We must acquire a life style which has as its goal maximum freedom and happiness for the individual, not a maximum Gross National Product."

Growth was in an important sense a discovery of economics after the Second World War. Of course economic development has always been the grand theme of historically minded scholars of large mind and bold concept, notably Marx, Schumpeter, Kuznets. But the mainstream of economic analysis was not comfortable with phenomena of change and progress. The stationary state was the long-run equilibrium of classical and neoclassical theory, and comparison of alternative static equilibriums was the most powerful theoretical tool. Technological change and population increase were most readily accommodated as one-time exogenous shocks; comparative static analysis could be used to tell how they altered the equilibrium of the system. The obvious fact that these "shocks" were occurring continuously, never allowing the

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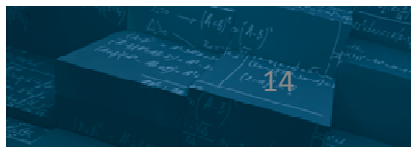

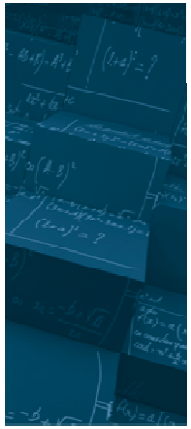

The value of the world's ecosystem services and natural capital

Robert Costanza*†, Ralph d'Arge‡, Rudolf de Groot§, Stephen Farber‖, Monica Grasso†, Bruce Hannon¶, Karin Limburg#°, Shahid Naeem, Robert V. O'Neill††, Jose Paruelo‡‡, Robert G. Raskin§§, Paul Sutton‖‖ & Marjan van den Belt¶¶**

* *Center for Environmental and Estuarine Studies, Zoology Department, and † Insitute for Ecological Economics, University of Maryland, Box 38, Solomons, Maryland 20688, USA*
‡ *Economics Department (emeritus), University of Wyoming, Laramie, Wyoming 82070, USA*
§ *Center for Environment and Climate Studies, Wageningen Agricultural University, PO Box 9101, 6700 HB Wageninengen, The Netherlands*
‖ *Graduate School of Public and International Affairs, University of Pittsburgh, Pittsburgh, Pennsylvania 15260, USA*
¶ *Geography Department and NCSA, University of Illinois, Urbana, Illinois 61801, USA*
# *Institute of Ecosystem Studies, Millbrook, New York, USA*
** *Department of Ecology, Evolution and Behavior, University of Minnesota, St Paul, Minnesota 55108, USA*
†† *Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA*
‡‡ *Department of Ecology, Faculty of Agronomy, University of Buenos Aires, Av. San Martin 4453, 1417 Buenos Aires, Argentina*
§§ *Jet Propulsion Laboratory, Pasadena, California 91109, USA*
‖‖ *National Center for Geographic Information and Analysis, Department of Geography, University of California at Santa Barbara, Santa Barbara, California 93106, USA*
¶¶ *Ecological Economics Research and Applications Inc., PO Box 1589, Solomons, Maryland 20688, USA*

The services of ecological systems and the natural capital stocks that produce them are critical to the functioning of the Earth's life-support system. They contribute to human welfare, both directly and indirectly, and therefore represent part of the total economic value of the planet. We have estimated the current economic value of 17 ecosystem services for 16 biomes, based on published studies and a few original calculations. For the entire biosphere, the value (most of which is outside the market) is estimated to be in the range of US$16–54 trillion ($10^{12}$) per year, with an average of US$33 trillion per year. Because of the nature of the uncertainties, this must be considered a minimum estimate. Global gross national product total is around US$18 trillion per year.

Because ecosystem services are not fully 'captured' in commercial markets or adequately quantified in terms comparable with economic services and manufactured capital, they are often given too little weight in policy decisions. This neglect may ultimately compromise the sustainability of humans in the biosphere. The economies of the Earth would grind to a halt without the services of ecological life-support systems, so in one sense their total value to the economy is infinite. However, it can be instructive to estimate the 'incremental' or 'marginal' value of ecosystem services (the estimated rate of change of value compared with changes in ecosystem services from their current levels). There have been many studies in the past few decades aimed at estimating the value of a wide variety of ecosystem services. We have gathered together this large (but scattered) amount of information and present it here in a form useful for ecologists, economists, policy makers and the general public. From this synthesis, we have estimated values for ecosystem services per unit area by biome, and then multiplied by the total area of each biome and summed over all services and biomes.

Although we acknowledge that there are many conceptual and empirical problems inherent in producing such an estimate, we think this exercise is essential in order to: (1) make the range of potential values of the services of ecosystems more apparent; (2) establish at least a first approximation of the relative magnitude of global ecosystem services; (3) set up a framework for their further analysis; (4) point out those areas most in need of additional research; and (5) stimulate additional research and debate. Most of the problems and uncertainties we encountered indicate that our estimate represents a minimum value, which would probably increase: (1) with additional effort in studying and valuing a broader range of ecosystem services; (2) with the incorporation of more realistic representations of ecosystem dynamics and interdependence; and (3) as ecosystem services become more stressed and 'scarce' in the future.

Ecosystem functions and ecosystem services

Ecosystem functions refer variously to the habitat, biological or system properties or processes of ecosystems. Ecosystem goods (such as food) and services (such as waste assimilation) represent the benefits human populations derive, directly or indirectly, from ecosystem functions. For simplicity, we will refer to ecosystem goods and services together as ecosystem services. A large number of functions and services can be identified[1–4]. Reference 5 provides a recent, detailed compendium on describing, measuring and valuing ecosystem services. For the purposes of this analysis we grouped ecosystem services into 17 major categories. These groups are listed in Table 1. We included only renewable ecosystem services, excluding non-renewable fuels and minerals and the atmosphere. Note that ecosystem services and functions do not necessarily show a one-to-one correspondence. In some cases a single ecosystem service is the product of two or more ecosystem functions whereas in other cases a single ecosystem function contributes to two or more ecosystem services. It is also important to emphasize the interdependent nature of many ecosystem functions. For example, some of the net primary production in an ecosystem ends up as food, the consumption of which generates respiratory products necessary for primary production. Even though these functions and services are interdependent, in many cases they can be added because they represent 'joint products' of the ecosystem, which support human

° Present address: Department of Systems Ecology, University of Stockholm, S-106 91 Stockholm, Sweden.

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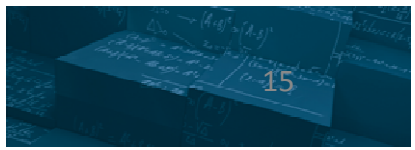

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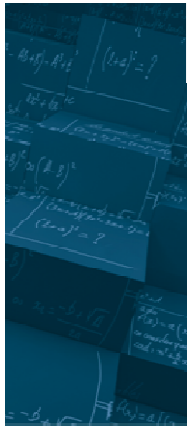
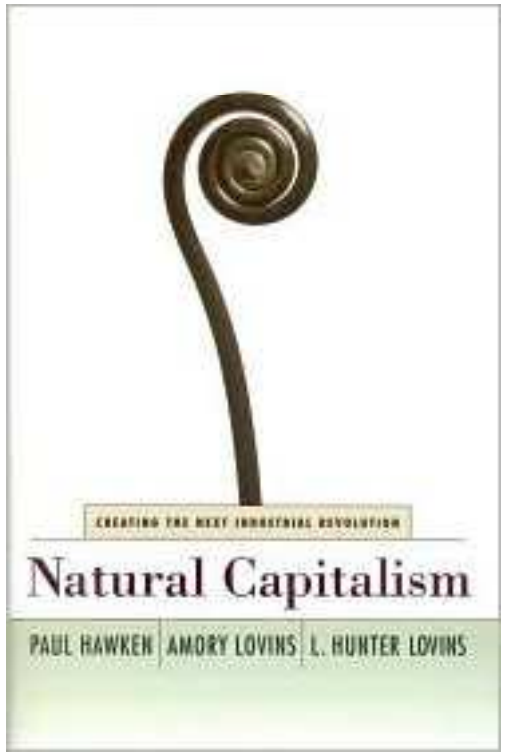


"Future economic progress can best take place in democratic, market-based systems of production and distribution in which *all* forms of capital are fully valued, including human, manufactured, financial and natural capital."



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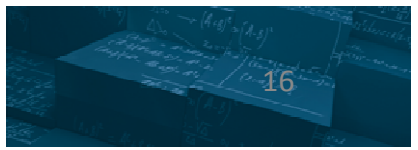

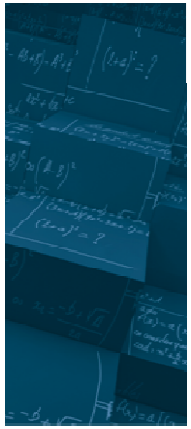

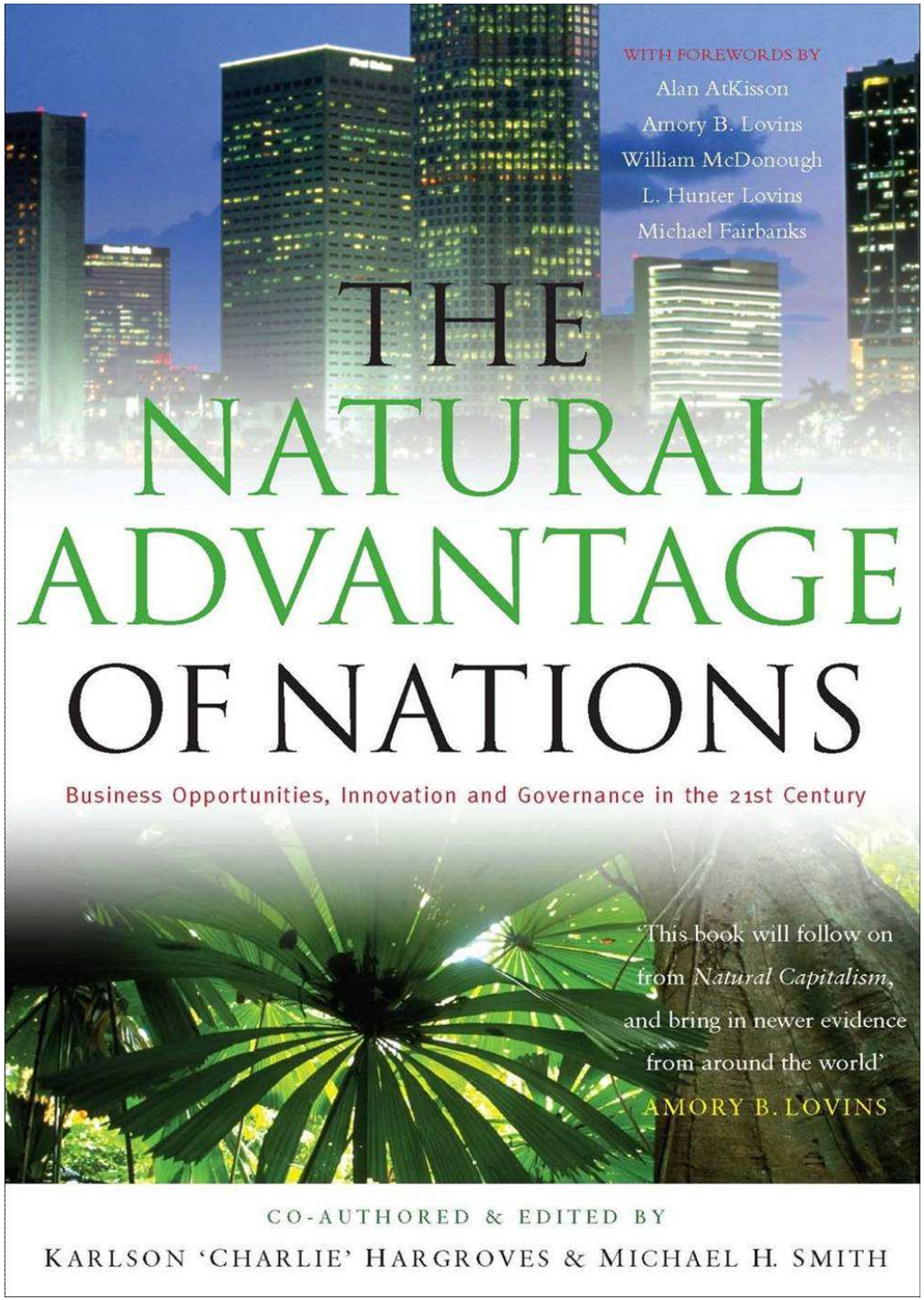
WITH FOREWORDS BY
Alan AtKisson
Amory B. Lovins
William McDonough
L. Hunter Lovins
Michael Fairbanks
THE
NATURAL
ADVANTAGE
OF NATIONS
Business Opportunities, Innovation and Governance in the 21st Century
'This book will follow on from Natural Capitalism, and bring in newer evidence from around the world'
AMORY B. LOVINS
CO-AUTHORED & EDITED BY
KARLSON 'CHARLIE' HARGROVES & MICHAEL H. SMITH

2005

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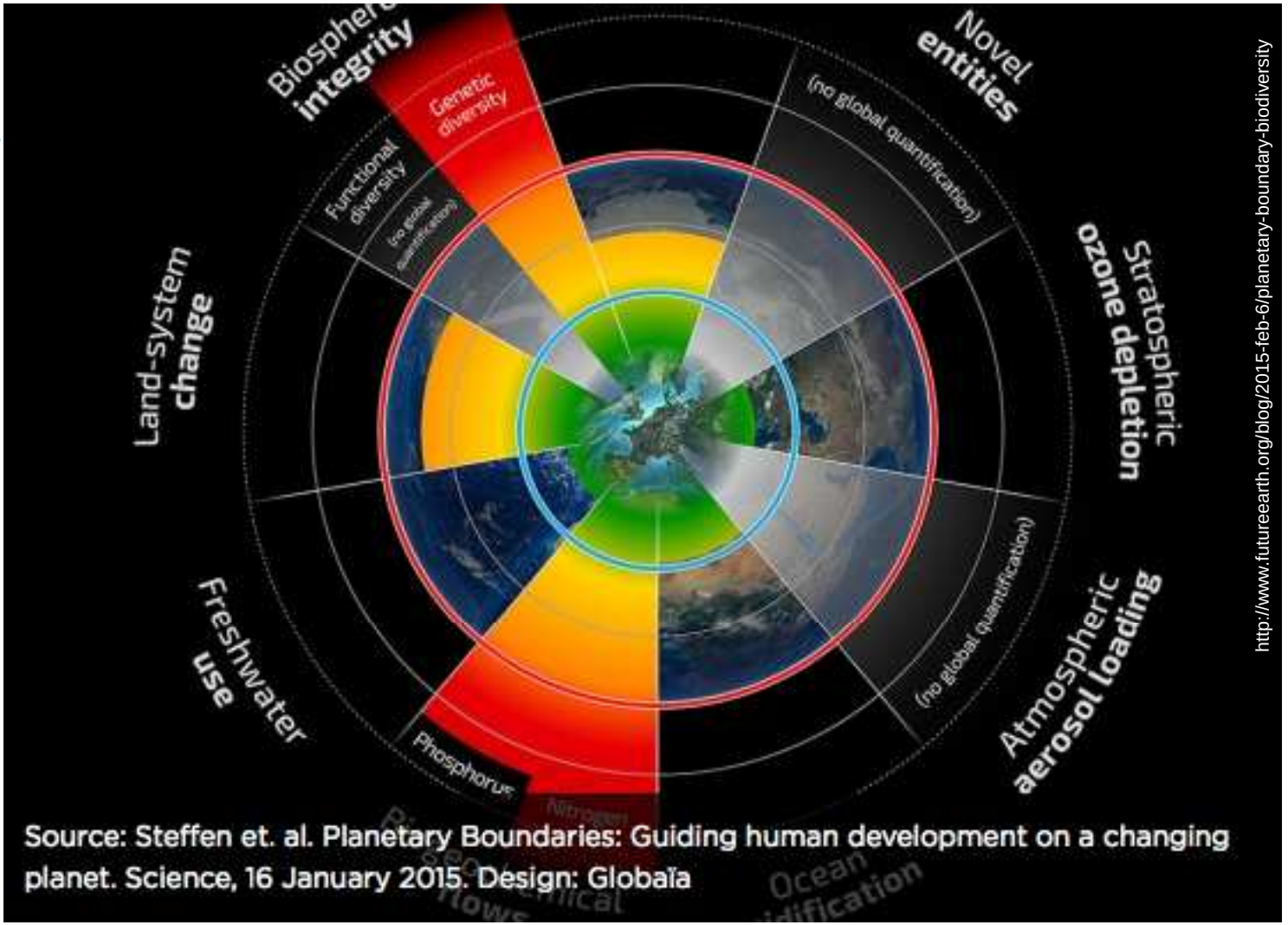

Anthropogenic pressures on the Earth System have reached a scale where abrupt global environmental change can no longer be excluded. We propose a new approach to global sustainability in which we define planetary boundaries within which we expect that humanity can operate safely. Transgressing one or more planetary boundaries may be deleterious or even catastrophic due to the risk of crossing thresholds that will trigger non-linear, abrupt environmental change within continental- to planetary-scale systems.

J. Rockström, Stockholm Resilience Centre, 2009
http://www.stockholmresilience.org/21/publications/artiklar/3-13-2010-planetary-boundaries-exploring-the-safe-operating-space-for-humanity.html

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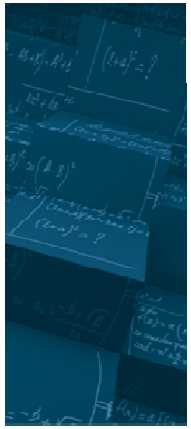


Performances économiques
et progrès social

Vers de nouveaux systèmes de mesure

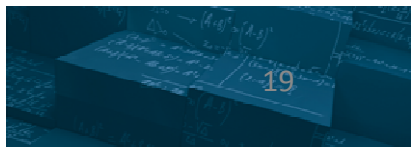
Joseph Stiglitz
prix Nobel d'économie

Amartya Sen
prix Nobel d'économie

Jean-Paul Fitoussi

Odile Jacob

2009



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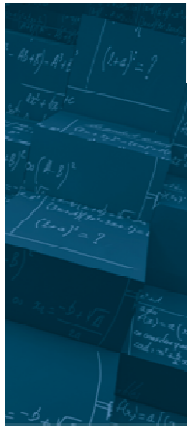
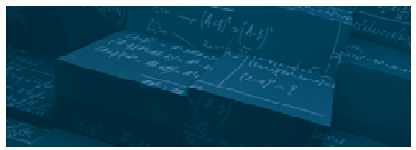


COMISSÃO PARA A REFORMA DA
FISCALIDADE VERDE

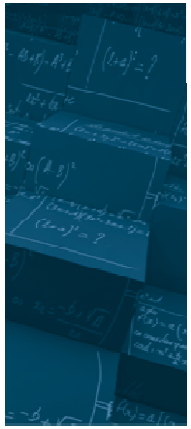
PROJETO DE REFORMA DA

FISCALIDADE VERDE

15 de Setembro de 2014



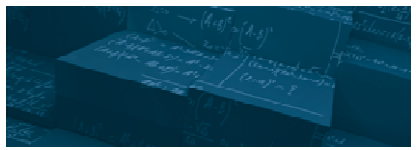
DIA MUNDIAL
DA ESTATÍSTICA
20.10.2015
MELHORES DADOS.
MELHORES VIDAS.



PROTECÇÃO DO AMBIENTE

PROMOVE CRESCIMENTO ECONÓMICO

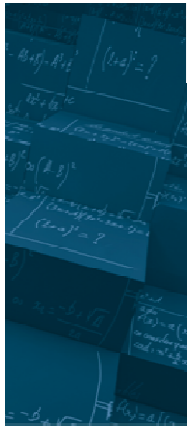
CONTRIBUI PARA CONSOLIDAÇÃO ORÇAMENTAL



3) Desenvolver a contabilidade verde

Desde 2003 que as Nações Unidas têm produzido numerosas recomendações com o objetivo de facilitar a integração na contabilidade pública do capital natural (contabilidade ambiental-económica). Esta representação integrada das estatísticas ambientais e da sua relação com a economia constitui o quadro necessário a uma adequada reformulação de políticas públicas que valorize corretamente o ambiente, incluindo a política fiscal. Importa por isso expandir quanto antes as contas-satélite ambientais, estabelecendo os procedimentos que permitam ao Instituto Nacional de Estatística criar e atualizar um sistema de informação integrado.

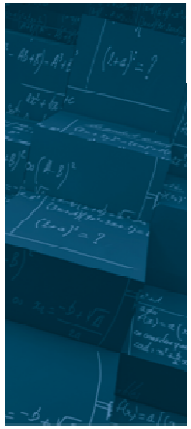
Simultaneamente, deverão ser implementadas medidas com vista a melhorar o reporte de informação não financeira por parte das empresas.



4) Harmonizar e publicitar informação ambiental

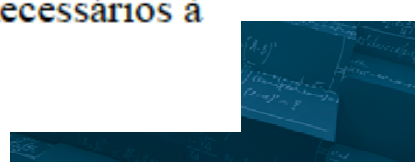
De forma dispersa, existe na Administração Pública uma grande quantidade de informação com relevância ambiental, muito para além da que se espera poder vir a encontrar, no curto-prazo, nas contas-satélite ambientais. No entanto, essa informação nem sempre é de fácil acesso e muitas vezes apresenta descontinuidades e incongruências. Seria importante que fosse criado um portal do ambiente que permitisse aos cidadãos, aos investigadores, às empresas e a todos os interessados aceder facilmente a dados fiáveis e atualizados provenientes das mais diversas fontes – administração central, regional e local, entidades reguladoras, empresas de serviço público, etc. Esta informação constitui um bem público que não deve continuar a ser desperdiçado.

Importa, além disso, implementar mecanismos adequados de monitorização do desempenho ambiental dos sectores relevantes que permita aferir o impacto real das políticas públicas respetivas e fundamentar a sua eventual revisão.



5) Criar ferramentas de análise e auxílio à decisão que combinem aspectos ambientais, sociais, económicos e orçamentais

O Estado Português não dispõe hoje de ferramentas, nem mesmo rudimentares, que lhe permitam elaborar políticas públicas com base em análises objectivas e integradas das dimensões ambiental, social, económica e orçamental. Esta lacuna acarreta custos ambientais e económicos difíceis de quantificar mas seguramente elevados – tanto custos diretos resultantes de políticas públicas ineficientes, como custos indiretos resultantes do não aproveitamento das oportunidades associadas à economia circular e à economia verde. Para que estas ferramentas sejam úteis é indispensável que existam especialistas em condições de as utilizar, manter e atualizar em permanência. O Estado poderia celebrar um contrato plurianual com um grupo de universidades e laboratórios nacionais para o desenvolvimento e utilização destas ferramentas, o que teria a vantagem suplementar de formar especialistas, necessários à Administração Pública e às empresas, e ainda fomentar a investigação.



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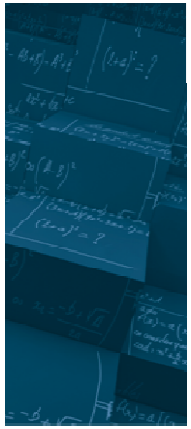

GRANDEZA	INTERNACIONAL	PORTUGAL
POPULAÇÃO	International Statistical Congress Brussels, 1853	Primeiro censo nacional: 1864
TEMPO	International Conference for the purpose of fixing a Prime Meridian and a Universal Day Washington DC, 1884	Hora média oficial (meridiano de Lisboa): 1891 Meridiano de Greenwich: 1911
SISTEMA INTERNACIONAL DE UNIDADES	General Conference on Weights and Measures Paris, 1960	Decreto-Lei n.° 427/83 1983
CAPITAL NATURAL		?