

REPORT ON:

Shareholder **E**quity

Equity **F**rom:

- **H**uman & **S**ocial
Services
- **C**ommon **A**ssets
- **N**atural **C**apital
- **E**cosystem **S**ervices



Shareholder Equity

Equity: Definition (Merriam-Webster Online)
 1a: a right, claim, or interest existing or valid in equity
 b: the money value of a property or of an interest in a property in excess of claims or liens against it
 c: a risk interest or ownership right in property
 d: the common stock of a corporation

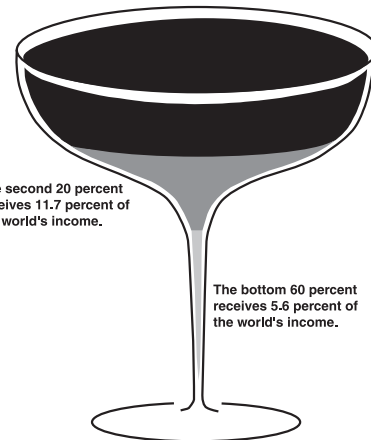
2 a : justice according to natural law or right;
 specifically : freedom from bias or favoritism

Current Status of Earth Shareholder Equity
 The World Bank has calculated financial wealth per capita based on human, produced and natural capital as follows. The chart at right displays those results.

This information by itself provides an incomplete picture of the status of Earth Shareholder Equity because it leaves out the distribution of wealth. The graphic at right portrays the current distribution of financial wealth globally:

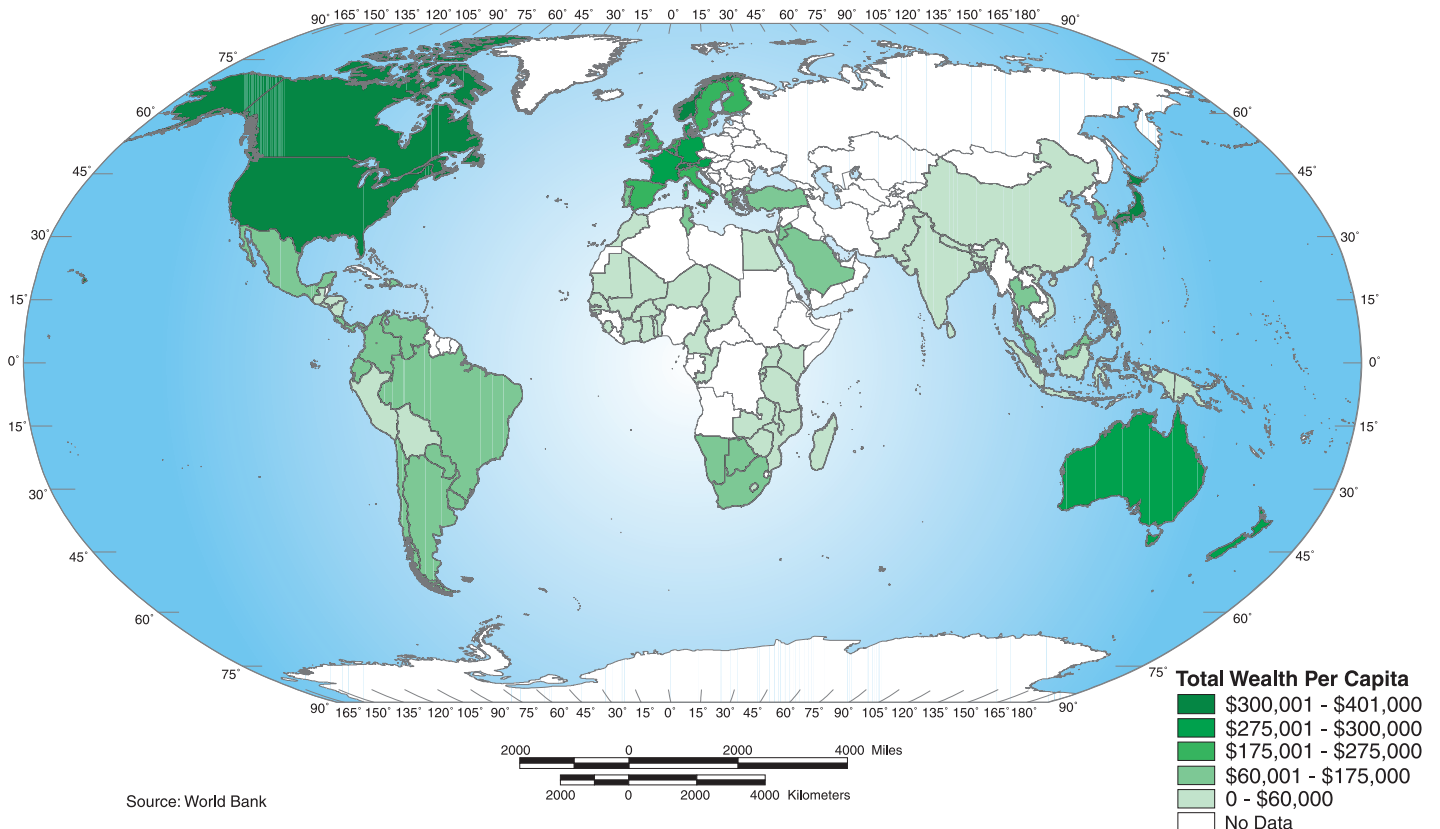
World Region	Total Wealth	Human Resources	Produced Assets	Natural Capital
North America	326,000	249,000	62,000	16,000
Pacific OECD	302,000	205,000	90,000	8,000
Western Europe	237,000	177,000	55,000	6,000
Middle East	150,000	65,000	27,000	58,000
South America	95,000	70,000	16,000	9,000
North Africa	55,000	38,000	14,000	3,000
Central America	52,000	41,000	8,000	3,000
Caribbean	48,000	33,000	10,000	5,000
East Asia	47,000	36,000	7,000	4,000
East and Southern Africa	30,000	20,000	7,000	3,000
West Africa	22,000	13,000	4,000	5,000
South Asia	22,000	14,000	4,000	4,000

The richest 20 percent of the world's population receives 82.7 percent of the world's income.



Source: U.N. Development Programme

Total Financial Wealth Per Capita



During the 1990's this trend has accelerated. In 1960 the top 20% of world population had an income 30 times greater than the bottom 20%. As of 1995 the richest 20% had 82 times the income of the bottom 20%. Between 1987 and 1993 the number of people with incomes of less than \$1 per day increased by almost 100 million to \$1.3 billion. In 100 countries, income per inhabitant today is lower than it was in 1985. 1.6 billion individuals now live worse than at the beginning of the 1980's. Clearly the growth in world GDP alone, from 1990-2000, is an inadequate indicator of global financial wealth.

What does an Earth Shareholder own? What is a share of the earth?

The distribution of wealth from produced assets and human resources will always be subject to debate and negotiation among various interests, governments, and political systems around the world. In this report we would like to focus on those resources which are inherently the common property of all Earth Shareholders, namely those assets produced neither by labor, nor by capital.

As a shareholder in Earth, Inc. each person on Earth shares a common inheritance of natural and cultural assets. These assets contribute actual or potential dividends to everyone on Earth. Actual and potential dividends can be computed on a per capita basis for ecosystem services, human and social services, and rent on natural and common assets. Our operating assumption will be that the contributions to welfare from natural capital and the shared cultural heritage of humankind should be equitably distributed among all shareholders, while the value added to these assets by individual or collective effort (labor or capital) should belong to the individuals who contributed that value.

Additionally, our goal in managing "Earth Inc." should be to create sustainable Shareholder Equity rather than short-term dividends. Therefore, Earth, Inc. should be managed to create a perpetual stream of benefits to shareholders, rather than be liquidated as quickly as possible for maximum short-term gain.

Equity from Human and Social Services:

Governments often provide services to their citizens from tax funding, which in many countries includes health care, education, welfare, unemployment, old age pensions, and disability. Governments often provide infrastructure such as roads, rail, water and sewage treatment. Other government services include research funding, access to museums, public lands and national parks. Governments provide for common defense, regulate the environment and working conditions, and operate the judicial system. These benefits provide for human welfare, but are very unequally distributed globally.

Equity from Common Assets

Many public goods cannot be assigned property rights and are inherently public such as the atmosphere, ozone layer, national defense, judicial system, etc. There is a class of public goods, which in the past had no property rights assigned, that have been termed common assets. These include the electromagnetic broadcast spectrum, fishing rights, mineral rights, aircraft landing rights, orbital satellite slots, products of government research such as the internet, patents on genetic structure, cap and trade permits for emissions of pollutants such as Sulphur dioxide, Nox, or Co2, etc. Rental values on these assets could be retained as earth shareholder equity, instead of being privatized as many of them are being done currently.

Equity from Natural Capital

UN Resolution 1803 (XVII) of 14 December, 1962/ Declaration of Permanent Sovereignty over Natural Resources:

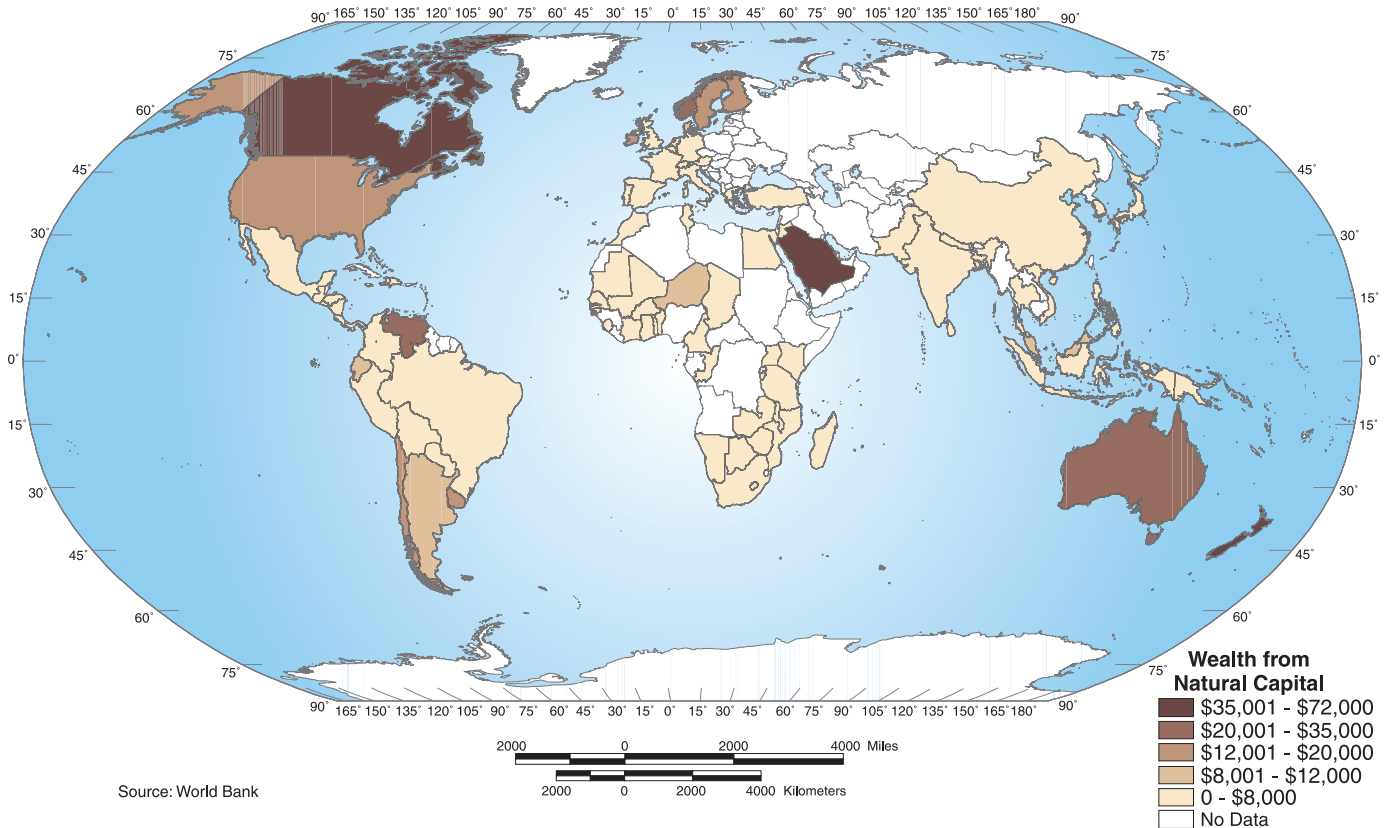
"Violation of the rights of peoples and nations to sovereignty over their natural wealth and resources is contrary to the spirit and principles of the Charter of the UN, and hinders the development of international co-operation and the maintenance of peace."

Another View:

*"The meek shall inherit the earth...
Except for the mineral rights."*

J. Paul Getty

Per Capita Wealth from Natural Capital



Country	Natural Capital
North America	16,000
Pacific OECD	8,000
Western Europe	6,000
Middle East	58,000
South America	9,000
North Africa	3,000
Central America	3,000
Caribbean	5,000
East Asia	4,000
East and Southern Africa	3,000
West Africa	5,000
South Asia	4,000

Total National wealth from Natural capital has been calculated regionally by the World Bank for 1997 including pasture land, crop land, timber resources, non-timber resources, protected areas, and subsoil assets. Urban land was included in built capital, but should be included in natural capital, and would add a substantial amount.

tem services.] For countries rich in sub-soil assets the importance of investing, rather than consuming, returns from extraction of oil, minerals, coal, gas, and other exhaustible resources needs to be stressed."

Equity from Ecosystem services

Adding to the natural capital values calculated by the World Bank are the values of ecosystem services. The services of nature provide at least \$33 Trillion worth of free benefits to humans, which is equivalent to \$5322 each for the 6.2 billion people on earth. These services include:

Gas, climate, and water Regulation, Water supply, Erosion control, Soil formation, Nutrient cycling, Waste treatment, Pollination, Biological control, Habitat, Food production, Raw materials, Genetic resources, Recreation, Cultural resources.

A Model for Sustainability and Shareholder Equity

An existing model of shareholder equity in natural capital, combined with weak sustainability currently exists in the US state of Alaska. Oil resources in Alaska belong to the people of the

NOTE from World Bank report; *"It should be mentioned at the outset that natural capital values are primarily based on instrumental or use values of the environment and that important ecological and life support functions of natural systems have not been valued. Depleting natural capital reduces the value of ecosystems services...[Harvesting renewable natural capital at a sustainable rate can maintain the same level of ecosys-*

state. The severance tax rate on oil is 12.25%-15% of extraction value depending on the age of the oil field, and 10% on natural gas. Royalties paid by oil companies drilling in Alaska are partly used for state revenue, but a large portion is placed in a permanent fund (APF), which is invested for the benefit of the citizens of Alaska. Without depleting the capital fund, interest is paid as an annual dividend to every resident of Alaska who has lived in the state for more than one year. Payments have averaged over \$1000 per year in recent years (Table1).

Table 1

21 years of dividends	
2002	\$1,540.76
2001	\$1,850.28
2000	\$1,963.86
1999	\$1,769.84
1998	\$1,540.88
1997	\$1,296.54
1996	\$1,130.68
1995	\$990.30
1994	\$983.90
1993	\$949.46
1992	\$915.84
1991	\$931.34
1990	\$952.63
1989	\$873.16
1988	\$826.93
1987	\$708.19
1986	\$556.26
1985	\$404.00
1984	\$331.29
1983	\$386.15
1982	\$1,000.00

The Relationship of Fund Income to State Oil Revenues: Past and Future

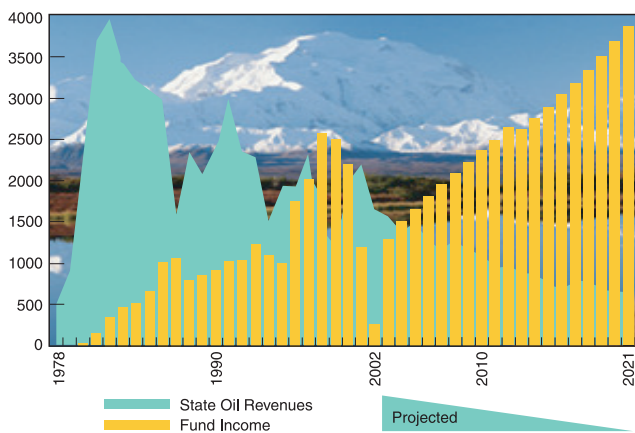


Figure 2: Alaska Model

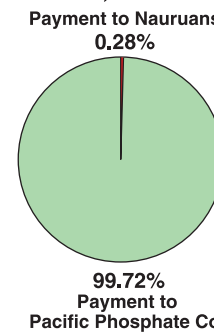
Figure 2 illustrates the transformation of natural capital into a sustainable stream of financial capital. As state oil resources are used up, the citizens of Alaska will still have a large and growing capital fund earning interest for them. This will continue indefinitely as long as the fund is managed well, and the state government is prevented from spending the funds.

The APF demonstrates the principle of weak sustainability replacing oil income with investment income. This assumes that oil is replaceable (substitutable) by money, a highly dubious assumption, considering the unique qualities of oil. The APF is one of the few cases in the world where the public has obtained property rights to natural capital. Governments usually retain rights to these resources, and revenues are used for general government expenditures, or quite often end up in the bank accounts of government officials, especially in authoritarian regimes. By establishing earth shareholder equity to common assets and natural capital, these benefits will accrue to the population at large, rather than to government officials and their associates, or to corporate owners.

Case studies of Shareholder Equity

Kuwait has an estimated oil reserve of more than 94 billion barrels, translating into a per citizen oil wealth of 142,000 barrels, which at today's levels is worth \$2.1 million per person. However, mismanagement, militarization, and lack of a private market economy have resulted in a Kuwaiti budget deficit. Recent proposals for a Niger Delta fund and Iraq fund would establish oil funds in these countries paying direct dividends to the populace rather than enriching their undemocratic rulers.

Nauru Phosphate Royalties 1922
(total value 823,045 British Pounds)



Source: *Nauru Environmental Damage under International Trusteeship*, Christopher Weeramanthy, Oxford Press, 1922

Figure 3: Business as usual model

In 1968, following years of struggle, the island of Nauru gained independence and control over their lucrative phosphate deposits. From then on, the annual income from phosphates of around \$100 million was shared between The Nauru Royalties Trust Fund, Nauruan landowners and the Government. By 1976, the annual tax-free income for every Nauruan had reached \$37,000.

Nauru has also invested these funds for the time when phosphate runs out. By no means was this resource managed wisely or sustainably, and the island has been devastated. The people have high levels of obesity and severe health problems such as diabetes. Nevertheless, Nauru is one of the few examples where people have regained equity in their own natural assets.

Usurious rates of rent on agricultural land paid by tenant farmers around the world has been cited by nobel prize winning economist Joseph Stiglitz as a major cause of poverty. This is another egregious case of denying earth shareholders equity in their own resources, and allowing this equity to be privatized into a small group of hands. One of the highest sources of natural capital equity is in urban land value, which is often taxed somewhat for local public services, but the vast majority of land rent accrues to private landowners. By contrast, all land in Canberra, Australia the nation's capital, is owned by the Commonwealth of Australia. Land is leased for a term, usually 99 years. Leasehold tenure was adopted so that speculation in undeveloped land could be avoided, and future increases in the value of land remained in the public purse.

Hong Kong, China also grants 50 year leases to land, subject to a 3% rental payment. Recently the islands of Eigg and Gigha in Scotland bought back the rights to all the land on the islands and put them into community ownership.

In the past wealth from natural and common assets has flowed mostly into the hands of government or private individuals and corporations. The trend towards privatization of unclaimed natural and common assets is accelerating. To counteract that trend Earth Shareholders are inherently entitled to equity in those assets which are not the products of labor or capital, and to democratically choose the amount paid in dividends and the proportion spent on government services.

Consolidated Statement of Operations THE BOTTOM LINE

Sustainable Human Wellbeing

Sustainable human wellbeing is the new bottom line. In the final Earth Shareholder's Report this section will make an attempt to combine and synthesize the information contained in the sections on built, natural, human, and social capital. There are many possibilities on how to synthesize this information. Information could be summarized regionally and an overall assessment made for each region. This would combine the Regional reports section into the consolidated statement of Operations. For example:

Sample North America Regional Summary:

North America is dominated by the US both in population, economic production, built capital, and consumption. The key factor in regard to the US economy is the high level of fossil fuel consumption combined with nearly 80% depletion of oil by 2000. This demand for oil requires a high level of oil imports primarily from the Middle East where most of the reserves are located. Although US CO2 emissions have continued to rise during the 90's at an average rate of 1.7% per year, one positive development is the decrease in emissions per unit of GDP by approximately 15%. Etc.

Correlations with Human Welfare

The correlations done in the built and social capital sections with Human development (HDI), human welfare (HWI), and happiness and life satisfaction could be expanded to cover all the factors studied, and correlations done with each one. Perhaps all the factors could be combined into a single correlation with human welfare. In order to do this all the factors would have to be converted into dollar terms or an index created so the factors could be added together. It may not be necessary to combine all the indicators together into a single unit. Each type of capital may be complementary to the others. Each may be essential on its own.

Sustainability

Correlations with human welfare do not necessarily consider the sustainability question, which relates to the ability to continue current practices indefinitely into the future without harm, and intergenerational equity. How much are we leaving to the next generation? Equity does not necessarily require that we leave them better off than us, but it does require that we leave them the same opportunities we have. Both of these criteria primarily relate to the depletion of non-renewable resources and exhaustion of renewable resources beyond the recovery point.

Depletion of non-renewable resources can be justified if some proceeds are invested in replacements for them, which is described as weak sustainability. There are very few examples of this worldwide. Current economic thinking is based on the premise that all resources have substitutes, and that when a resource becomes scarce the price will rise and a substitute will be found. Perhaps this will come true, although the unique qualities of oil suggest that there are no equivalent substitutes. Some resources have no substitutes such as the atmosphere, ozone layer, or bio-diversity, etc.

Exhaustion of non-renewable resources beyond the recovery point applies to endangered species and bio-diversity, use of the earth and atmosphere as a sink for waste, and over-fishing among others. Some of these factors may not be able to recover from overuse. The final report needs a method to measure sustainability of various current practices. Depletion of non-renewable resources without replacement measures, and exhaustion of renewables beyond the recovery threshold could be used as a guide for measuring sustainability.

Assessment of Future Liabilities:

This section will attempt to summarize potential future problems if current trends continue. For example: As oil stocks pass 50% and begin to decline, those countries who are major importers of oil may face severe impacts due to price increases. Until alternative sources of energy are developed, countries which are heavily dependant on oil may face major shocks and disruptions.

Historical evidence indicates that continued increases in CO₂ from burning fossil fuel will likely result in ever increasing global temperatures leading to severe weather events and resulting economic damage. Rising sea levels may inundate low-lying areas with massive population displacements, loss of life, and economic damage. If it is not confronted, the AIDS crisis will continue to have major impacts on life expectancy and quality of life particularly in Africa. If global economic growth continues to result in increasing concentrations of wealth, the quality of life for billions of people may continue to decline. This may result in political turmoil, increasing instability, and foment terrorism, etc.

Bibliography

Work Cited: Report on Natural Capital - Oil

Charles A. S. Hall, College of Environmental
Science and Forestry, State University of NY,
Syracuse, NY

The World Petroleum Life-cycle, Richard C. Duncan
and Walter Youngquist

BP Statistical Review of World Energy, June 2002
Earth Policy Institute

The End of Cheap Oil, Colin J. Campbell and Jean
H. Laherrere

**All other sources cited at the end of each capital
section.**