



Beyond Ratings Weekly Digest

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Your briefing on augmented financial risk analysis

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ANALYST INSIGHT

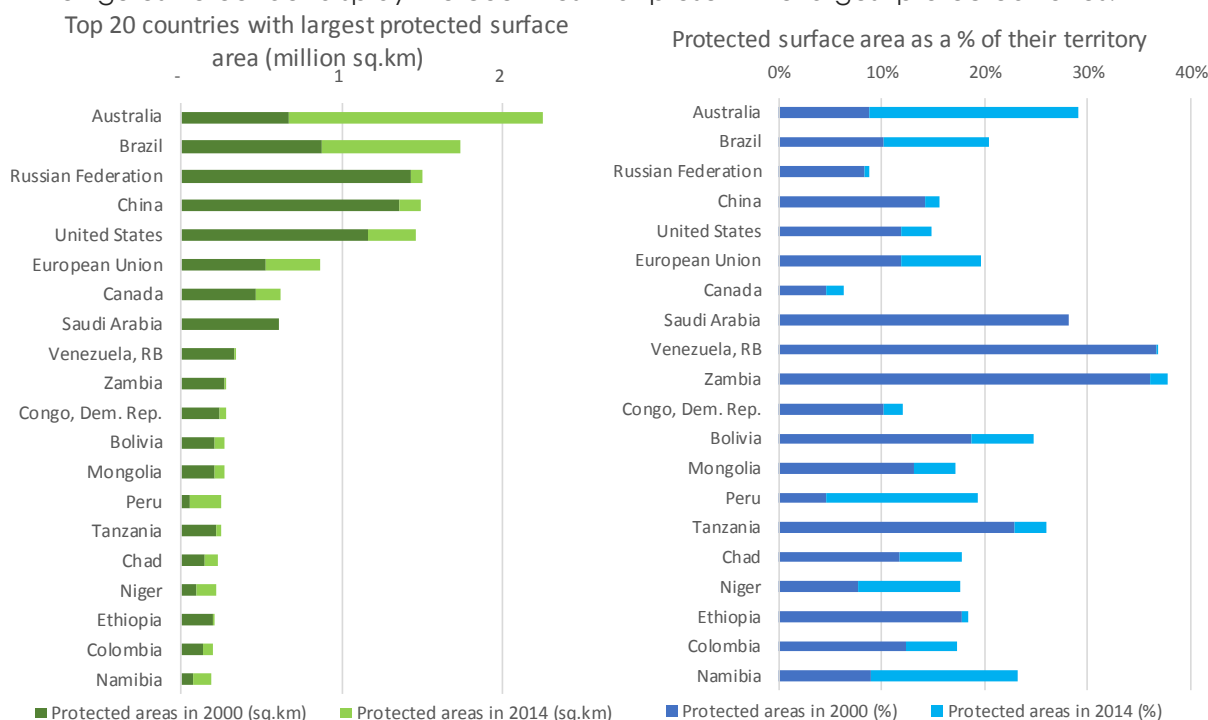
Protecting the Earth: could we limit ourselves to a half dinner?

In 2016, Edward O. Wilson, a renowned American biologist (Emeritus at Harvard University) published a book with the title *Half-Earth: Our Planet's Fight for Life*. The proposition was simple and quite radical: to set half of our planet aside from human impact, or in other words, to designate half of Earth's surface area as a protected zone, in order to preserve wildlife. What would such a measure mean, and what would be the consequences?

Let's first recall the magnitude of the issue such a measure would try to address: a mass species extinction, which has been emphasized in an increasing number of scientific studies. The biosphere is currently incurring an extensive erosion of its basis: species extinction rates are estimated to be hundreds to thousands times higher than the extinction rates normally observed in a stable ecosystem. From a population perspective, it has been recently demonstrated that more than 40% of vertebrate species have experienced severe population declines over the past decades. The causes are multiple but all anthropogenic: habitat destruction and fragmentation, chemical and genetic pollution. Climate change is another threat to add to the list, which could lead to a loss of one sixth to one fifth of species by the end of the century. Such a collapse would create important ecological risk for human societies, as biological diversity determines what is called the natural capital, which is providing essential ecosystem services to economies (in developing countries in particular).

According to E. O. Wilson, protecting half of Earth is the only option if we want to protect ourselves from biological insecurity. The eminent professor estimates that, doing so, about 85% of the species could be saved from extinction.

Presently, a large number of countries have already selected parts of their territory as protected zones. At the global scale, it accounts for 15% of the total land area, and for 12% of aggregated territorial waters (2014, World Bank). This represents about 20 million sq.km, i.e. the surface area of North America. The figures hereunder display the countries that present the largest protected zones:



As it can be directly observed, just a few countries (Australia, Brazil, Russia, China, USA, EU, Canada) already account for 10 million sq.km of protected areas.

If the aggregation of present protected areas is already a significant number, the objective of 50% is still far away: there are still about 50 million sq.km to find, and the effort is all the more important as we may consider that the zones already designated for preservation are (to some extent) the zones which were the most obvious (or easy) to protect, and that difficulty will rise for every additional acre. Moreover, a question remains about the nature of the zone that would be protected: obviously, one acre of desert does not contain the same biological diversity and does not provide the same ecosystem services than one acre of rainforest.

Would the protection of 50% of the Earth preserve the biosphere from a biological annihilation? There are at least three pending conditions: (i) areas designated for protection must shelter a sufficient part of the richest ecosystems, which provide the most important ecosystem services; (ii) these areas have to be adequately designed in order to avoid fragmentation, which is known to be an important biodiversity erosion driver; (iii) the preserved half Earth must be sufficiently safeguarded from pollution flows coming from the other half. The increasing emission of GHG to the atmosphere, for instance, would sooner or later also affect the conserved land.

An additional condition remains, and not the least significant: future governments would have to resist the temptation to breach the security of protected land; they would have to resist the temptation, possibly in the middle of a resource crisis, to clear protected land below which some valuable minerals would be laying; or to move into these free territories, pushed up by a tense demographic situation. This would be unprecedented in human history. In fine, it would all depend on the recognition by the majority of countries of the vital importance of the biosphere. We cannot do this without a new paradigm, without a new global ecological awareness, because some formal laws, if they are not recognized by the majority, will never resist the scarcity of coming times.

Hadrien Lantremange, Natural Capital Analyst

WEEKLY FOOD FOR THOUGHT

Sovereign Risk

French growth at its highest pace since 2011: "France is back!"

On Tuesday January 30th, the French National Institute of Statistics and Economic Studies (Insee) published the French growth figures for 2017, with real GDP growth reaching 1.9% in annual average. This figure, in line with the latest Insee and Banque de France's forecasts, is well above that of 2016 (+1.1%) and close to the 2010 and 2011 figures (+2% and +2.1% respectively).

+1.9%

This good growth is mainly due to the Q4 2017 strong results, where growth reached 0.6% in comparison to the previous quarter. At the same time, Insee slightly revised down the Q3 2017 figure, from +0.6% to +0.5%. According to the French Statistical public body, this economic acceleration is mainly due to investment. Indeed, corporate investment

increased by 4.3%, after +3.4% in 2016, and that of households peaked at +5.1%, after +2.4% in 2016.

Moreover, French exports sharply accelerated, registering an increase of 3.5%, after +1.0% in 2016. Thanks to an increase of 4.3% of imports, the trade balance continued to weigh on activity, but a little less than last year, slashing growth by 0.4 percentage point (pp) of GDP compared to -0.8 pp in 2016. At the end of the day, although French growth forecasts have been revised upward, notably by the IMF (+1.9% for 2018 and 2019), the strength of the euro, if it were to persist, could weigh on investment and exports. But given the current economic context, the decline in the unemployment rate could boost consumption, the ultimate engine of solid growth.

Julien Moussavi, Head of Economic research

Sources: Beyond Ratings, Insee

ESG

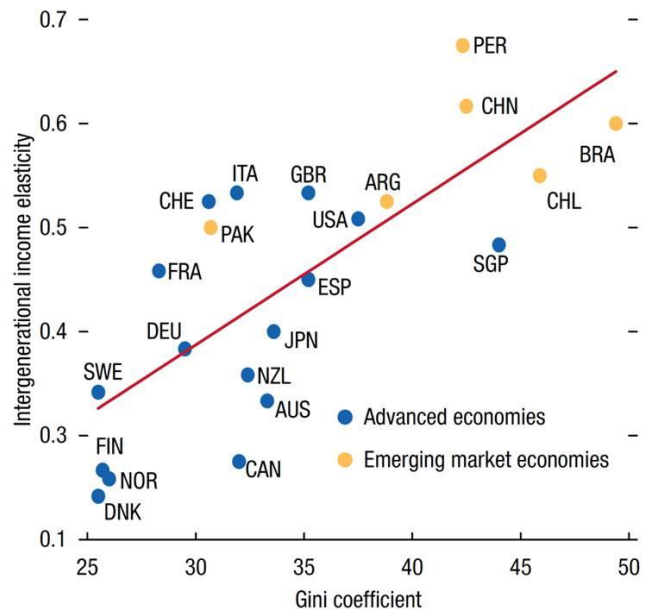
Does inequality slow social changes?

During of the World Economic Forum's annual meeting in Davos, Minouche Shafik (Director, London School of Economics and Political Science) published a plan to heal fractured societies thanks to a new social contract. According to him, inequalities have grown due to globalization and technology advances that exacerbate competition and create greater needs for education. This makes things like family support (especially financial) increasingly important to fit global employment market needs. In other words, the higher the income inequality, the lower the intergenerational mobility, and this relationship is stronger in an open world.

Shafik suggests increasing social redistributions to offset chances. In 2017, Beyond Ratings published a similar research note about "Inequality, Human Capital and Growth" that shows that high levels of income inequality and intergenerational immobility are associated with low educational performance. In turn, we also show that education – or human capital – is a strong predictor of a nation's long-term economic growth.

Emeric Nicolas, Head of Statistics

Income (in)equality and social (im)mobility

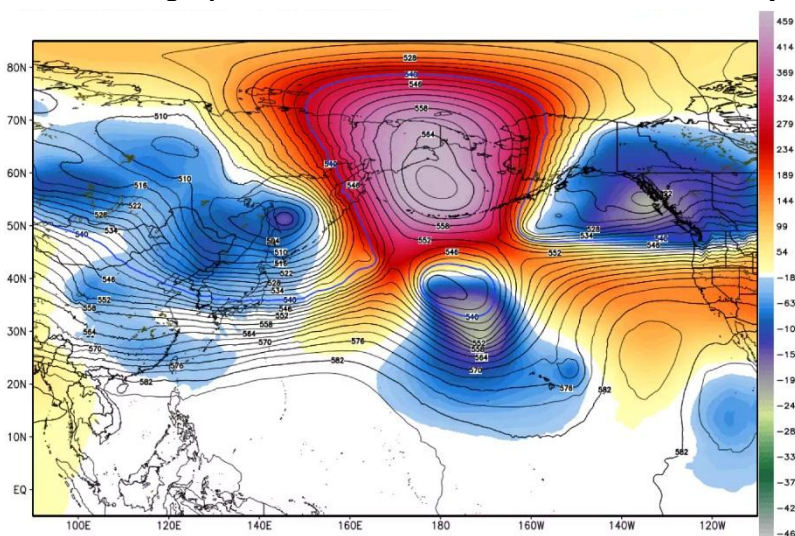


Sources: Beyond Ratings, WEF

Carbon/Climate Change

Are temperatures playing Yo-Yo?

Abnormal high-pressure zone between Siberia and Alaska (01-30-2018)



Few weeks after an exceptionally low temperatures episode in Canada during which temperatures reached -40°C , Siberia is facing the opposite situation. For example, Omolon has just largely broken an all-time record for January with 3°C on the thermometer. This is 2.2°C above previous record (0.8°C) and $37,2^{\circ}\text{C}$ above average January high daily temperature. Even if, in such place, the temperature range is much wider than in other regions, a 52°C jump in two weeks is rare enough to raise alarm. More generally, average temperatures in Siberia have risen by 1.6°C in one hundred years, raising concerns about permafrost thaw and subsequent release of methane, a highly powerful

greenhouse gas. It's not sure that the yo-yo already reached its high point or its low point.

Emeric Nicolas, Head of Statistics

Source: Beyond Ratings, Washington Post

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