



Transformation, returns and trust

Managing trust for transformations

Long-term Investment Outlook 2022

Triodos @ Investment Management

“We have shown that a great deal of what makes people happy is living up to what they think they should be doing.”

George A. Akerlof, Animal Spirits

Introduction

Over the past decade it has universally become clear that our current system exceeds both our planet's environmental and social boundaries. Our economy must therefore change; it must become more sustainable, more inclusive. This is not an incremental change or just a post-pandemic recovery. No, we need a transformation. With that, we mean a fundamental or **radical change** of our economic system.

An essential element of any transition or transformation is trust: trust in institutions, trust in the fact that change will deliver a better future for all. In real life, only two things move societies: existential threat or a promising future. At this moment, we have both, as also highlighted in our Advanced Economies and Emerging Market Investment Outlooks 2022. The promising future is about new technologies and societal transformations that can bring us wellbeing. We often seem to forget that most of the world population – in poor and rich countries – lives in better circumstances than in most

parts of history. We often overlook this positive aspect because we tend to focus on what is threatening us. Climate change, biodiversity loss, inequality and social unrest dominate our daily news.

In this longer-term outlook, we start with taking a look at the state of wellbeing around the world in the current economy: where do people thrive, where does nature thrive, where does trust thrive? From that, we start drawing the longer-term economic picture. In first instance, we take the simplest approach: by only looking at material wellbeing, often measured by Gross Domestic Product (GDP). All in all, we expect lower growth for most countries in the coming years. This will also translate into lower financial returns. The investment winds have turned: the tailwinds of the last four decades, favouring higher returns, have changed into headwinds. This will lead to lower expected long-term returns across the board, especially if we correct for energy stocks.

Implications for investors

Mainstream economic thinking ignores the idea of transformations that we expect will have to unfold (or that we are already experiencing) to deliver wellbeing for all. Economic transformations – such as the energy transition – will result in more turbulence and sectoral shifts and can also result in (temporary) lower economic activity on a macroeconomic level. This environment has implications for investors. Calculating expected returns in the old-fashioned way by taking forecasted macroeconomic developments based on historic trends does not help in any way. Transformational investing tries to unlock value by investing in the changes that are needed for a regenerative, inclusive society. Moreover, they may also lead to paradigm shifts in our thinking: instead of concentrating on financial returns, the management of non-financial assets such as nature might gain in importance.

How to arrive at sustainable wellbeing?

We don't have to explain at length here that the current economy is unsustainable in many aspects. Enough has been said already about climate change (IPCC), biodiversity loss (IPBES) and planetary boundaries. On the social side, increasing absolute poverty after COVID-19 is a reversal of a trend towards lower poverty (World Bank) and increasing global inequality seems to be the inherent future of current economic structures. Differences per country and between countries are large. On a global scale, you can say that countries that perform well on the ecological side (within Planetary boundaries) score less well on the social side and the other way around (O'Neill, Fanning, Lamb, & Steinberger, 2018).

The goal of our economic process is maximizing wellbeing for all. In a Brundtland (WCED, 1987) sense, not only for people living now, but also for future generations. Wellbeing is not equal to economic growth. Material consumption, or the ability to buy, own and enjoy goods and services, is of course part of it, but there is more to wellbeing: social relations, empowerment, health, our environment, to name a few. The trade-offs between current and future wellbeing and between GDP and ecological footprints are shown in figures 1-3. Of course, this is not the full picture, but some conclusions can be drawn from this, also based on other research:

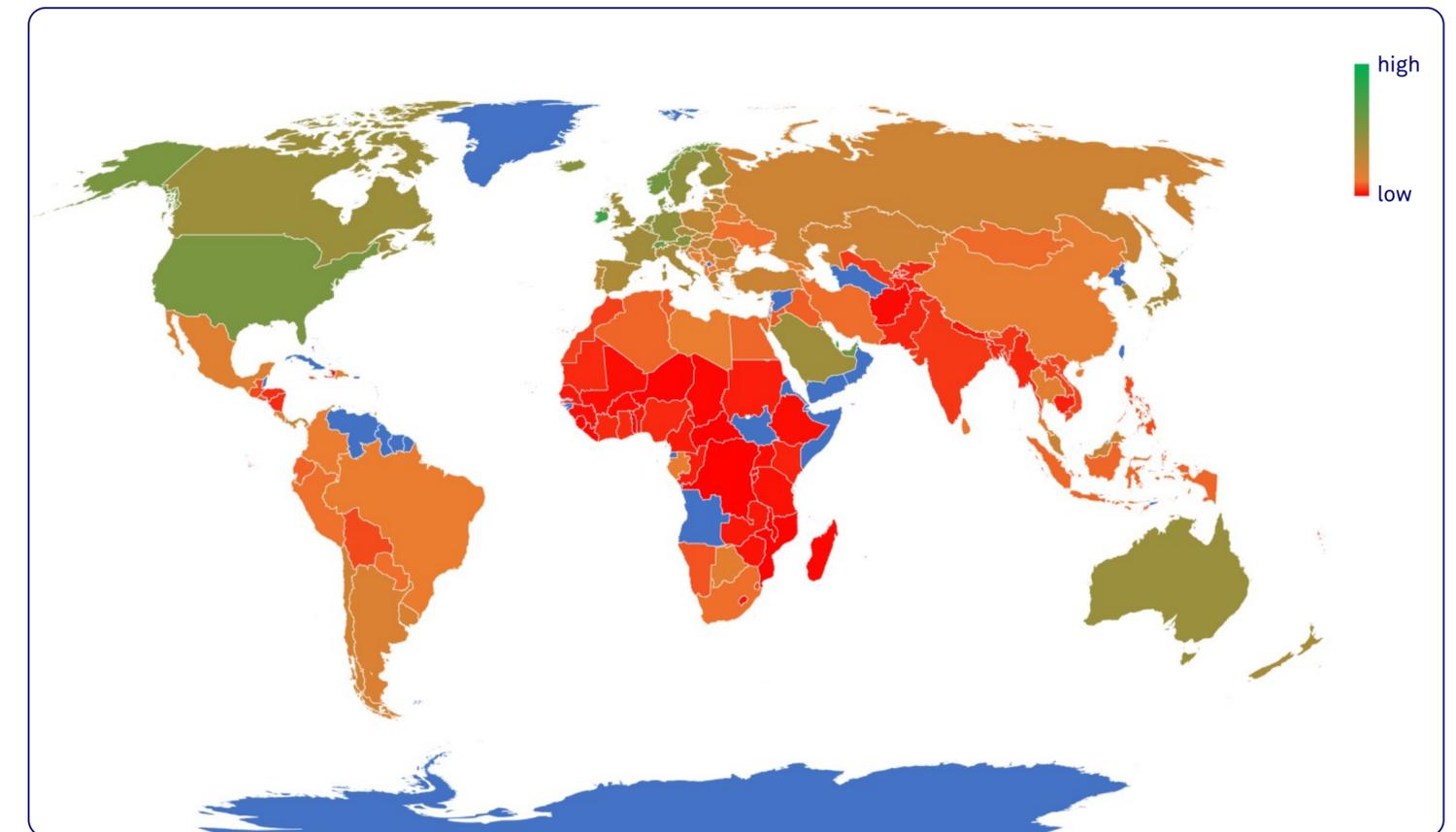
1. Economic activity adds to wellbeing, but its effect is also limited. For instance, a country like Costa Rica

scores high on wellbeing (either the Happy Planet index or the Global Happiness Report), while having a low GDP per capita.

2. Current wellbeing in most countries inversely relates to ecological sustainability. In other words, countries with higher living standards use more from nature than is sustainable.
3. Trust – in this case, trust in others and in institutions – is an important intermediating factor for wellbeing. Individuals with high social and institutional trust levels were happier than those living in less trusting and trustworthy environments. The benefits of high trust were especially great in conditions of adversity, including ill-health, unemployment, low income, discrimination, and unsafe streets (World Happiness Report 2020). During both the Global Financial Crisis and the COVID-19 pandemic societies with greater mutual trust suffered fewer adverse effects on subjective wellbeing (World Happiness Report 2021).

Sustainable wellbeing, hence, depends on a balancing act between a several factors: the production of material wellbeing, ecological sustainability, and social thriving. A more sustainable future requires transitions linked to the ecological overshoot. They will only succeed, however, if they are inclusive, and if people trust the institutions that steer those transitions. This is our starting point for investigating the future.

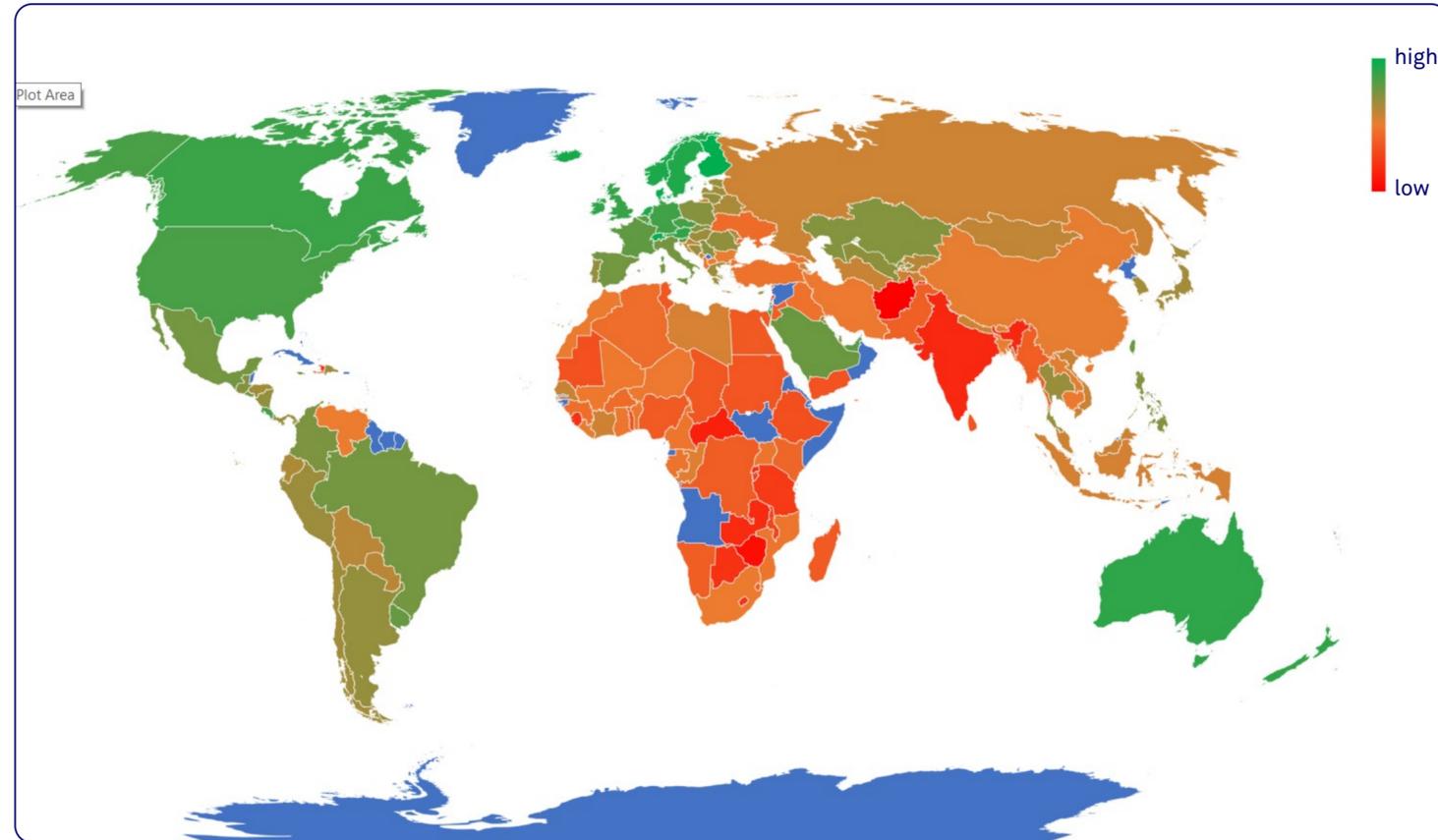
Figure 1 GDP per capita



Source: World bank

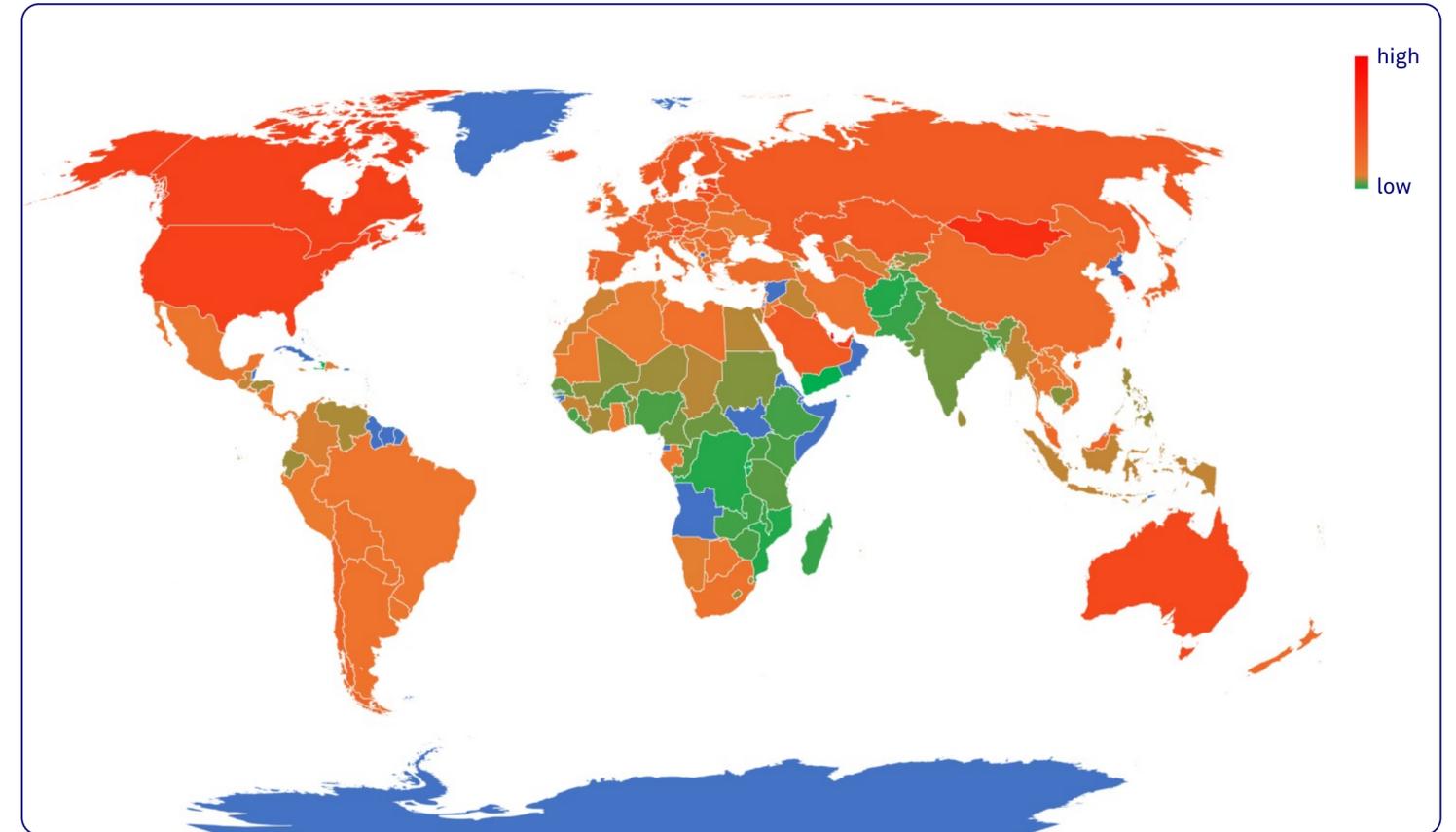
How to arrive at sustainable wellbeing?

Figure 2 Wellbeing



Source: Gallup World Poll

Figure 3 Ecological footprint



Source: Global Footprint Network National Accounts 2021

From flawed views to realistic estimations

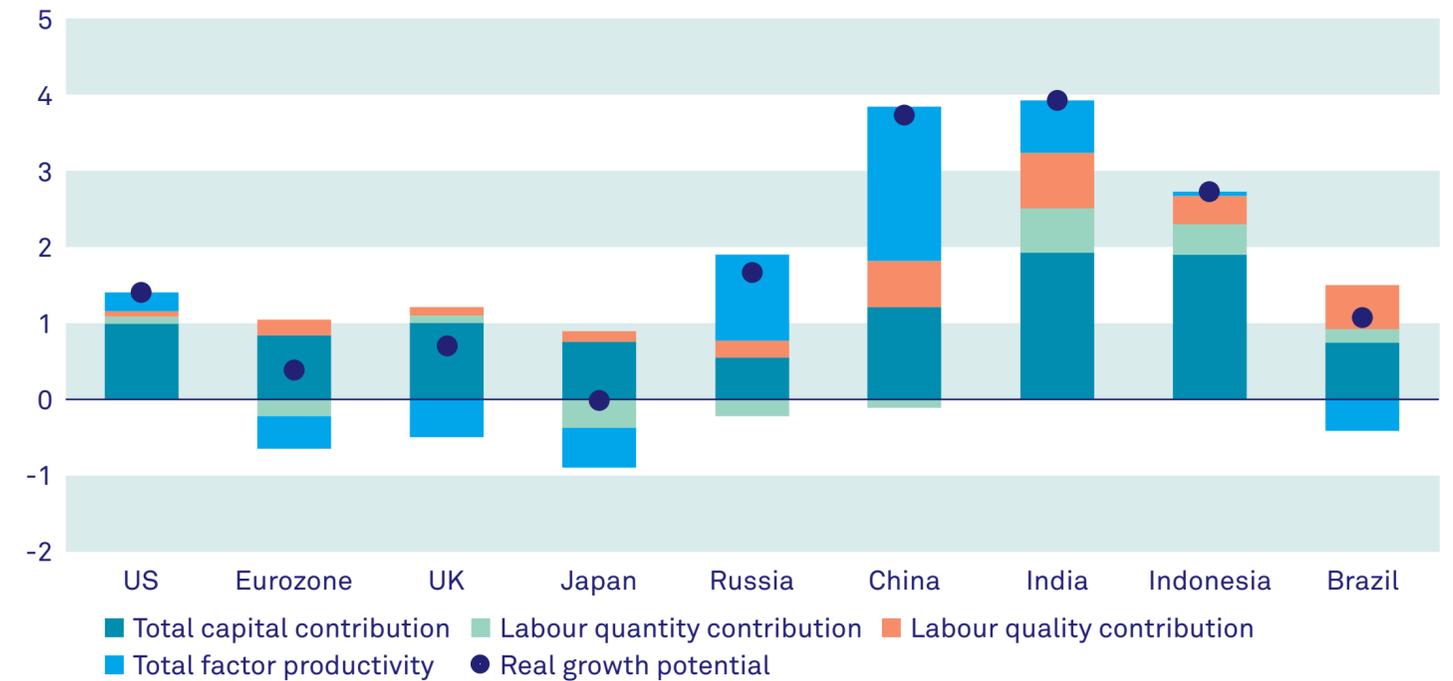
But let's first put on our blinders. In the standard, mainstream economics 'growth accounting' framework - which implicitly assumes that growth and wellbeing go hand in hand - the only things that count are capital, labour, and productivity as inputs. The latter is the so-called Solow-residual, the residual to explain growth once the contributions from the production factors capital and labour have been calculated. Based on this approach, GDP growth will be structurally lower in the coming years in most parts of the world than in the last twenty years (see figure 4). Especially in the advanced economies, annual economic growth is expected to be around 1%. Catch-up growth in emerging economies will also decline to more sustainable levels. This lower-growth perspective is a combination of demographics (fewer new people entering workforces), lower capital-intensive growth and, most importantly, low, or even negative total factor productivity (productivity growth from technological innovation).

So, the story is the same as **last year**: the tailwinds of previous decades for investors will likely turn into headwinds in the coming decades. Lower costs of capital due to lower interest rates, globalisation, financial deregulation, commodification and increased debt have all led to increased returns. These favourable financial factors have resulted in the financial economy growing **over 50%** more than the real economy over the last 20 years. Apart from the fact that this is not preferable, it is difficult, if not impossible, to imagine

that this trend will continue. We therefore expect lower returns based on the standard calculations.

However, as we explained **last year**, this way of looking at the future is misleading. This line of forecasting the economic future does not reckon with the fact that part of our historical growth is based on commodification, on exceeding ecological limits, and enabled by deregulation that led to inequality and power concentrations. The costs of our economic activities have been lower than optimal from a societal perspective. External effects, from water and ground pollution to carbon emissions that were emitted during production, have never been priced at all. Energy is a case in point. Mainstream economic theory attributes all economic activity to labour and capital. Yet ever since the Industrial Revolution, the whole economy has been fuelled and transformed using cheap fossil energy, which has led to the substitution of human labour by machines. We only attribute the investments in machinery (which enable the use of fossil fuels) to a production factor (capital) and leave the rest (energy use) up to 'technological progress', while in fact it is substitution from human labour to energy. Not explicitly taking energy (and biophysical laws) into account is a flaw that many ecological economists have already warned for (Kümmel & Lindenberger, 2020) (Keen, Ayres, & Standish, 2019). And what is true for energy, is also true for other, mostly negative, externalities from production, such

Figure 4 Structural growth estimates, business as usual (Structural growth, 2022-2037)



Source: Triodos IM

as deforestation, biodiversity loss, cheap labour, and poor working conditions. **The Dasgupta Review** (Dasgupta, 2021) pointed out that biodiversity might also limit economic activity, as the use of natural resources is limited. A consequence for growth might be that it is simply no longer possible because a further breakdown of natural systems threatens humanity (Spash & Hache, 2021). Ecological debt can not be repaid by putting more nature in the economic system.

In addition to these miscalculations on the ecological side, social factors also feed into growth accounting in an unsustainable way. The economic growth success of globalisation, for instance, is partly driven by taking production to lower wage countries where people are not paid a living wage. This drives down the costs of labour and comes into the growth equation as a positive financial return.

From flawed views to realistic estimations

To grow or not to grow

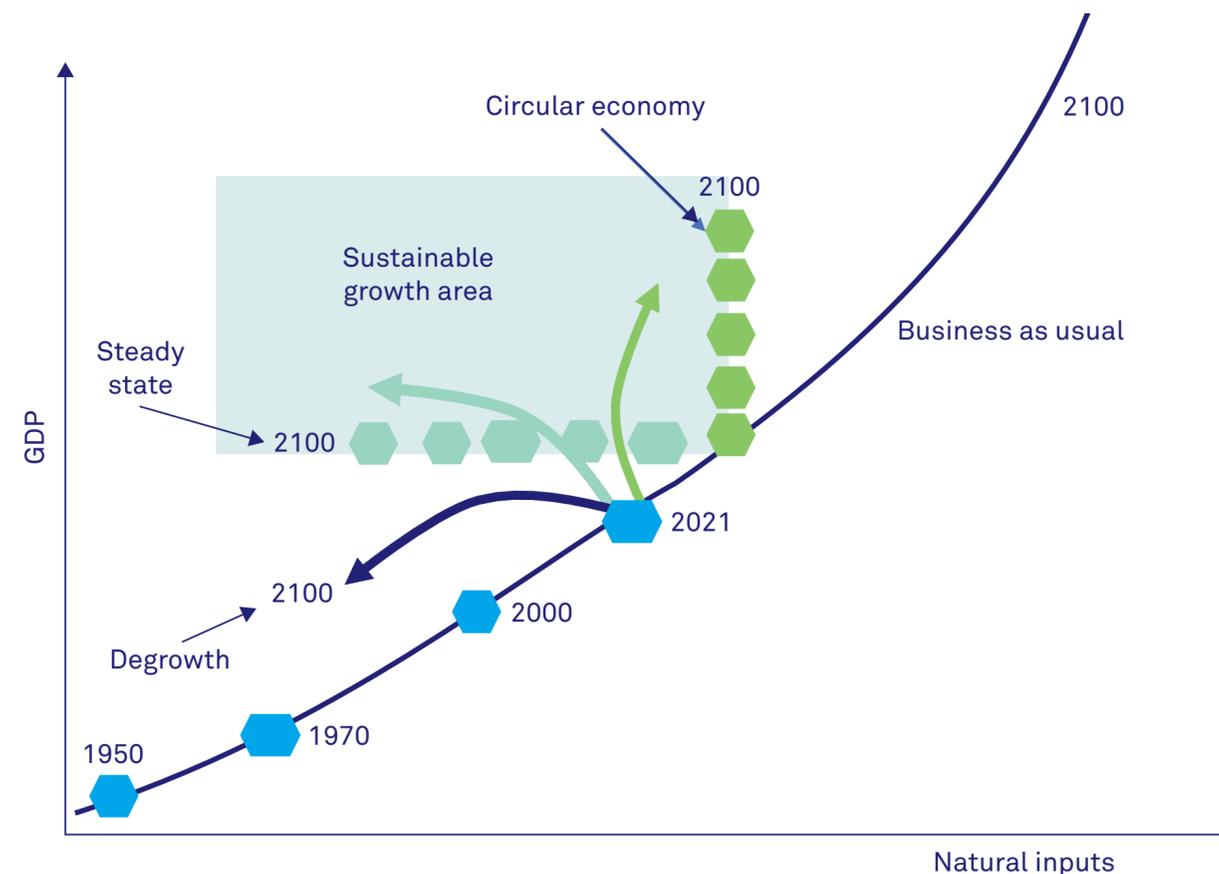
Correcting growth accounting for these omissions shows that the production factor energy accounts for a substantial part of economic growth that mainstream economics has attributed to unexplained 'technological progress'. This development has led to higher private returns at the expense of the environment as well as some factors associated with the social side. If the aim is to create a regenerative and inclusive society, all negative 'externalities', or negative effects not priced in by markets, should be corrected. This is not exclusively an ethical requirement. For instance, the fact that cheap (fossil) energy is almost exhausted is an economic argument. Another argument is that bearing the risks and costs associated with climate change does not lead to improved wellbeing, but to avoiding destruction of our society and should therefore be considered.

It is hard to calculate the exact amount of growth that can be expected if energy, nature, or other factors not explicitly modelled in growth accounting are limited in the coming years. Historically this relationship between, for example, energy and output varies over time due to technological changes (Bercegol & Bensity, 2022). However, given the fact that most advanced economies have much higher ecological footprints than is sustainable, negative growth is probably more likely than whatever growth.

The conceptual idea is presented in figure 5. To have a more sustainable economy we need to restrict the use of natural inputs drastically (from fossil energy to natural materials) and limit the way nature is used as a sink (from carbon emissions to waste). One idea is that we can create a circular economy, an economic system where the use of resources, products and materials is optimised, and non-renewable resources are no longer used. Although this end-goal is probably a fata morgana (Toivanen, Majava, Järvensivu, Vadén, & Lähde, 2020) (Hickel & Kallis, 2019), a move towards a more circular economy than we currently have, seems possible. In the end, however, the practical outcome of lower resource use might lead to the other possible pathway, more directed at steady-state growth (Bauwens, 2021), culminating in a transition towards a post-growth society (Jackson, 2021). In addition to that, if we as a global community fail to reinvent economic activity in such a way that we can stay within planetary boundaries, degrowth should also be considered: less economic activity to get the economic system within the earth's limits.

As is clear, all three pathways will have implications for expected financial returns. While a 'pure' circular economy can still be an economy where growth (and hence expected returns) can theoretically be in line with historic growth data, for the other pathways (steady state and degrowth) that is clearly not the case (Hickel, 2020) (Kallis, 2018). Our base case will

Figure 5 Sustainable economic development trajectories



Source: Triodos IM, based on Bercegol & Bensity, 2022

be more in the direction of steady state. However, underlying dynamics in the economic process are huge. A consequence for investors will likely be that investing in the right transitions can make a bigger difference in terms of returns than in the past.

Transformations

A more realistic and sustainable look at the longer-term future should include both the limits to growth as well as the transformative change needed to build a sustainable economy. A deep transition (transformation) is a series of connected and sustained fundamental transitions of a wide range of socio-technical systems in a similar direction (Schot & Kanger, 2018). The idea of transformations has deep roots, going for instance back to the works of Polanyi (Polanyi, 2001 (1944)). According to the work of Schot et al. (2018), the first deep transition has fed the double challenge of environmental degradation and social inequality: Exactly the two elements that worked in favour of financial returns. This first deep transition started with the industrial revolution, had several waves (i.e., from steam, to combustion engines, to ICT) and took us to the place where we are now.

The second deep transition might emerge as a response to the challenges we now face. This includes different transitions, that eventually may all lead to a new paradigm with changed ‘meta-rules’ of the system and profound effects on the financial sector. The extractive system that was built over the past 200 years, with efficient production, excessive consumption, and unequal distribution at its core, is likely to change drastically in this transformation. For instance, one of these shifts might entail a change in perception of asset management; from minding only financial capital to minding a broad capital base:

natural capital, human capital, intellectual capital, and social capital, in addition to financial capital. In our words, that would be ‘real’ impact investing.

We are only at the beginning of a transformation that could lead to these big shifts. Currently, a few transitions (which together comprise a transformation) are happening in different areas in response of the most pressing problems:

- **Energy transition:** reducing carbon emissions, through electrification of mobility and appliances and a shift to renewable energy.
- **Resource transition:** using as little non-renewable resources as possible and use renewables only at a pace below the renew-rate, through the principles of circular economy.
- **A food and nature transition:** improving soil use, and regenerate nature, through more plant-based food, regenerative investments and smaller-scale agricultural production.

These transitions build the promising investment landscape for the coming years. The energy transition is the most mature transition, whereas the other two are just in their infancy. Non-sustainable industries and individual companies (from the fossil industry and mining companies to large-scale food processing companies) will ultimately be the losers of these transitions.

From transition to transformation

Transformative finance has the purpose of creating a (disruptive) change in the system. In other words, to contribute to a (sustainability) transition. Transitions have two important characteristics: they are complex and long term (Loorbach, Frantzeskaki, & Meadowcroft, 2009). This means that investment horizons need to be long. In the shorter-run, investors

can gain by going into stranded assets which will of course obstruct the pace of transitions.

In addition, investors sometimes think they contribute to a transformation, whereas in practice they are only investing in a transition. Although also needed, it misses out in the overarching goal. Table 1 gives two examples.

Table 1 Transformational investment

	Single rule	Rule set	Investments
Deep transition 1			
Transition	Optimise combustion engines	Mass production methods (e.g., the way of organising the production of cars at Ford)	Invest in combustion cars
Transformation	Use of fossil fuels in many systems across sectors (agriculture, energy provision, mobility)	Global mass production (a way of organising the system)	Invest in fossil industry and mass production
Deep transition 2			
Transition	Optimise renewable energy	Circular and energy efficient production methods	Invest in wind and solar
Transformation	Imperative to use renewable energy in many systems across sectors (leading to electrification, more localised energy systems)	Circular and carbon neutral production	Invest in renewables, electrification, decarbonisation, energy efficiency

Source: Triodos IM, based on (Kern, Sharp, & Hachmann, 2020)

In deep transition 1, investing in the automobile industry in the early 20th century was clearly transitional: investing in combustion engines meant a big leap forward. However, the accompanying production system (mass production) and the fact that fossil fuel power was used to transform other sectors ultimately led to bigger (transformational) changes, also for investors.

In the second deep transition this could happen again. Investing in renewable energy, for example, has become mainstream already. New organizational or production principles, such as circular or regeneration, are usually neglected, however, also because the focus on a transformation is not or only partly implemented by most investors. Otherwise, they would be investing for a carbon-free, circular economy.

Successful transitions require trust and inclusion

The current transitions stem mostly from the fact that the current economy is ecologically unsustainable. However, that is not to say that social aspects are not important. They are crucial in letting the sustainability transitions succeed: only when the transitions are inclusive or 'just' can they become a success. The energy transition, for example, should not lead to energy poverty for some people through higher prices for fossil fuels without enabling them to transit towards renewable energy sources and lower energy use. And alleviating people out of poverty or reducing inequality may improve wellbeing at large but cannot be called a 'transition' for lack of a clear endpoint on a social scale.

An important element of transition inclusion (in addition to financial inclusion) is trust. Most macroeconomic literature uses the concept of generalised trust, which is defined as people trusting other people in general. This concept measures so-called out-group trust; trust in others, ranging from individual people to organisations or governments. Trust affects how people interact with each other, and therefore trust by one individual directly influences trust by others in a society. This means that average trust tells a lot about the society. Figure 6 shows the world's high-trust and low-trust societies.

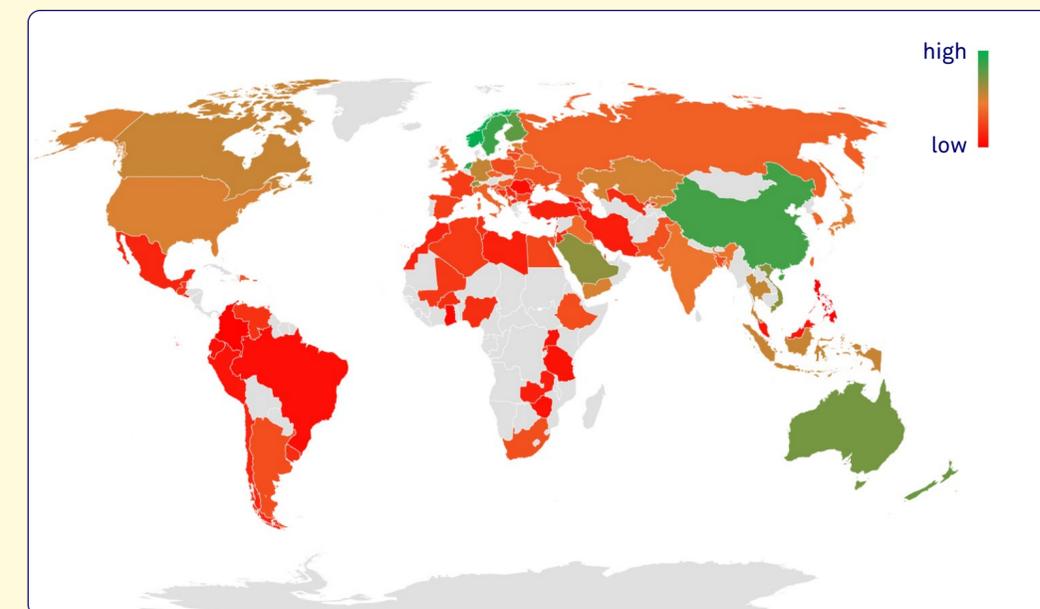
Moreover, trust has an important but often implicit and therefore ignored meaning to economics. In every society, a certain level of trust is a prerequisite for an economy to keep functioning, as this enables people to engage in trade and other constructive activities. It also lowers transaction costs and enhances stability and peaceful interaction among members of a society. More equal societies (as measured by the Gini-coefficient) turn out to be the societies where people trust each other more.

As we highlighted before, higher trust societies generally weather storms better than low(er)-trust societies.

From an investor perspective two lessons can be drawn from this:

1. Investors must look holistically at investments in sustainability transitions: if their investment is inclusive (as much as needed and possible) they contribute probably to the success of their investment and, also not important diminish risks of failure.
2. Investing in transitions in a lower-trust environment is a separate investor risk. This risk may partly be considered when monitoring country risks, as trust will show up in governance variables at the country level. Especially when investing in transitions that move further from the current business as usual, however, the weight attached to trust factors should necessarily be higher.

Figure 6 Self-reported trust in others



Source: World values survey, 2014 or latest available

Where to start?

As an investor you can take the passive view that business as usual might continue. Just calculate expected returns based on historical averages and see the financial sector as being separated from real life and nature. That is not the view we at Triodos Investment Management adhere to. This method is intrinsically wrong, both from a standard economic point of view, but even more so if you want to invest in solutions that help wellbeing for future generations. From the standard economic point of view, we see headwinds coming in that will reduce expected returns. From a broader view, making investments more sustainable implies that you must take account of what mainstream economics oddly calls externalities. These come at a cost: companies that continue to ignore this will ultimately lose their value.

If you don't believe in business as usual, you can invest in transformation. This offers plenty of possibilities for investors with the holistic perspective on future wellbeing as an expected return on their investment. Sustainable innovation is a source of wealth and wellbeing for both investors and society at large. And transformation will speed up if investors divest from companies that have no place in a sustainable world and allocate their money to solutions rather than to problems.

Obviously, this has consequences for expected risk-return profiles, as returns likely not become more volatile (not necessarily lower), but also for our role as investors. Transformational investing requires a longer-term horizon, a holistic view, and the willingness to put impact first. If financial return remains the only driver, we will not be able to make the necessary transformation.

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