Impact in SAA

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Agenda

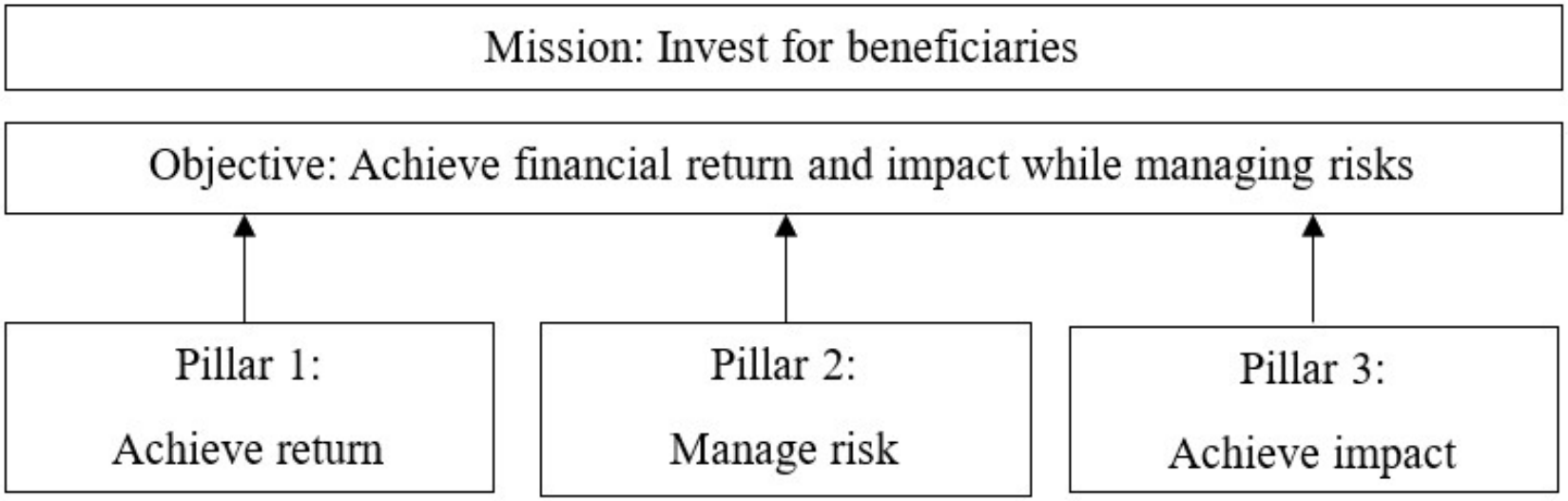
1. SAA – Strategic Asset Allocation
   - From 2D (risk-return) to 3D (risk-return-impact)
   - Integrated SAA

2. Fifty-shades of impact: impact alignment

3. Transition scenarios

Integrated SAA in short

Mission and objectives



From conventional to integrated SAA

	Conventional SAA	Integrated SAA
1. Set an integrated investment policy	• Formulate mission and investment objectives (**return, risk**) • Adopt investment beliefs • Determine risk appetite	• Formulate mission and investment objectives (**return, risk, impact**) • Adopt investment beliefs, **including impact beliefs** • Determine risk appetite
2. Form macro-economic expectations	• On **growth, interest rate, inflation**	• On **growth, interest rate, inflation** and **transitions** • Transitions requires a sector view
3. Form risk-return-impact expectations	• Set **risk-return expectations** on all asset classes	• Integrate impact alignment as a separate consideration • Extend to **risk-return-impact expectations** on all asset classes
4. Perform scenario analyses and construct the portfolio	• Scenario analysis using **macroeconomic factors** • Results in different asset mixes with different **risk-return** characteristics • Construct a portfolio by optimising expected risk-return	• Scenario analysis using **macroeconomic** and **transition factors** • Results in different asset mixes with different **risk-return-impact** characteristics • Construct a portfolio by optimising expected **risk-return-impact**

Impact / sustainability

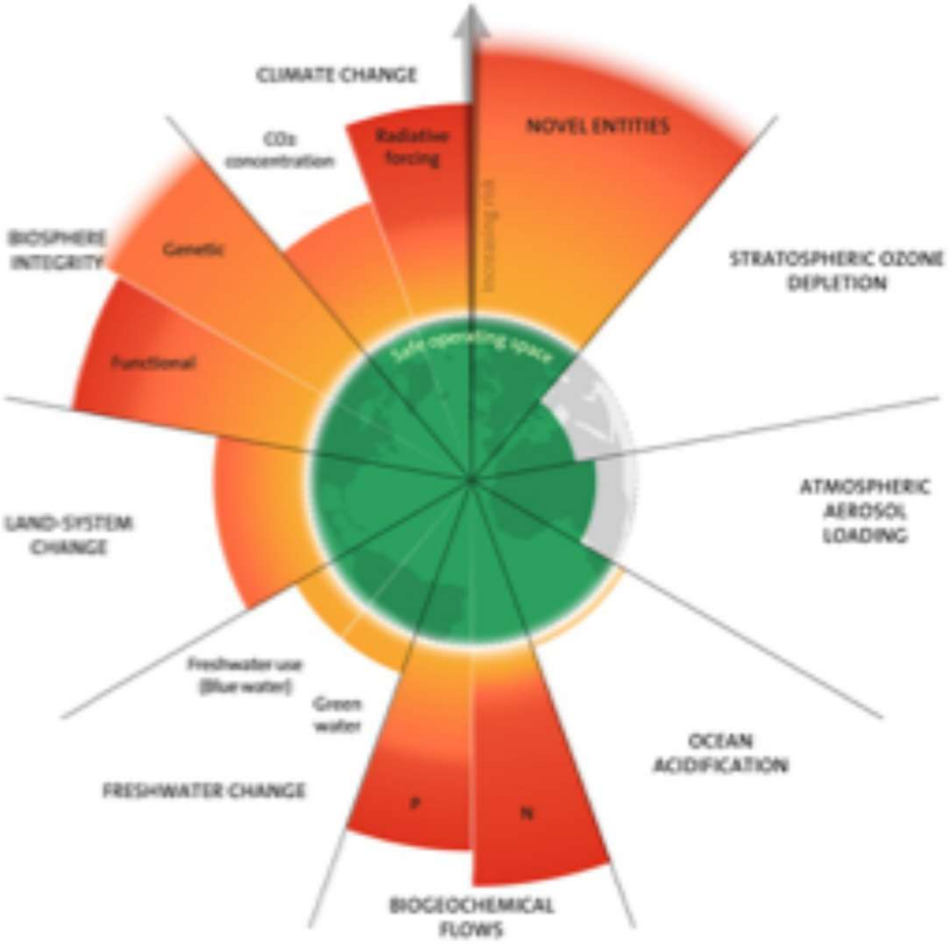
Planetary boundaries

The **planetary boundaries framework** of Steffen et al. (2015) defines a *safe operating space for humanity* within the boundaries of *9 productive ecological capacities* of the planet

The planetary boundary lies at the intersection of the green and orange zones

Update Planetary Health Check (2025):

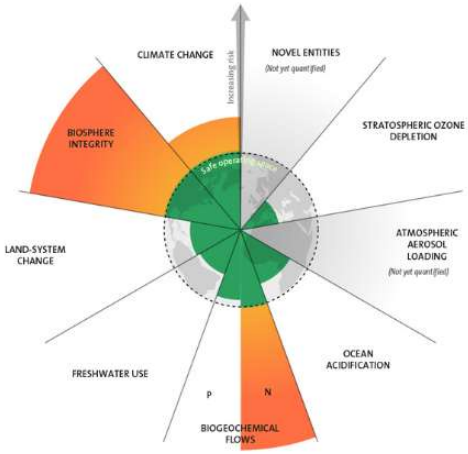
7 out of 9 boundaries crossed



Planetary boundaries framework

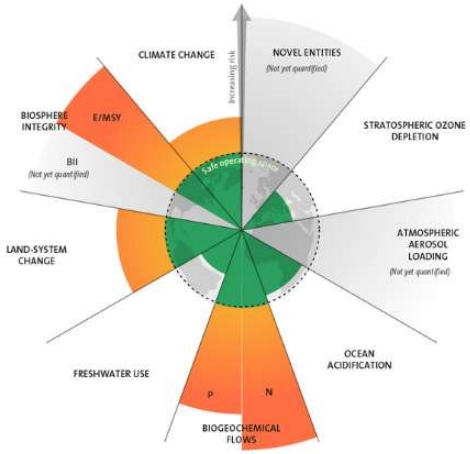
Source: Planetary Health Check 2025

2009



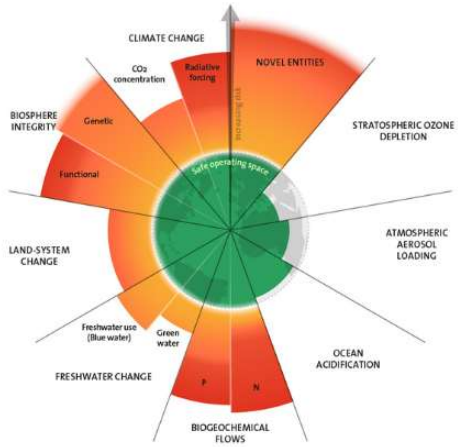
7 boundaries assessed,
3 crossed

2015



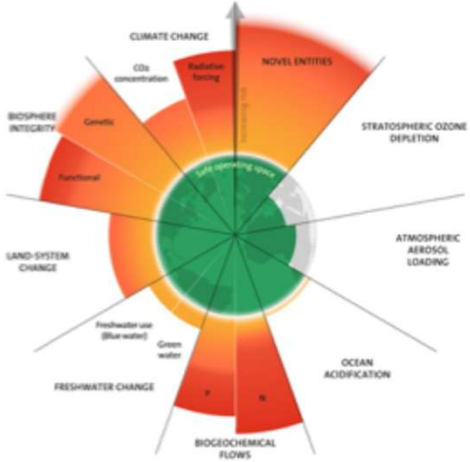
7 boundaries assessed,
4 crossed

2023



9 boundaries assessed,
6 crossed

2025



9 boundaries assessed,
7 crossed

Fifty shades of impact

Evolution of term impact / sustainability

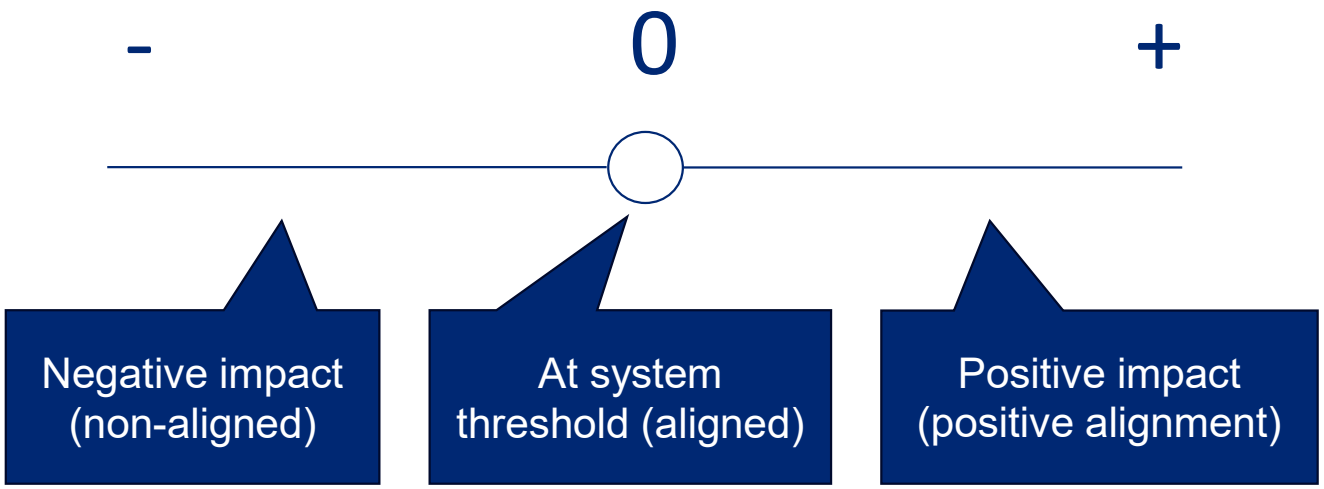
- Broad definition: social and ecologial
- From input variable (ESG) to output variable (SDGs or impact)

Impact of asset classes

- How much impact? When enough?
- You need reference point: Science Based Targets initiative (SBTi)
- Impact alignment (IA) measures how far you are from ’system threshold’

Impact alignment (IA)

IA measures how far you are from 'system threshold'



Example energy transition

- Business as usual: $IA < 0$
- Paris-aligned commitment: $IA = 0$
- Carbon positive / faster pathway: $IA > 0$

Example social transition

- Underpayment in value chain: $IA < 0$
- Payment of living wage in value chain: $IA = 0$
- More than living wage: $IA > 0$

Big sustainability transitions

Climate – Energy transition:

Moving from the use of fossil fuels to renewable

Raw Materials – Circular Economy:

Redesign and recycle products leading to less use of raw materials and fewer carbon emissions

Biodiversity – Healthy Food and Regenerative Agri- and Aquaculture:

Trend towards healthy food production with respect for land and water

Labour practices – Social Transition:

Trend towards decent labour practices across the value chain of production

SAA: from transition to impact alignment

- Transitions happen in the **economy** -> scenario analysis
- Impact alignment of assets in **asset classes** -> impact expectations of assets (integrated: risk-return-impact expectations of assets)

➢ What is the bridge between transition and impact alignment?

- ❑ Impact alignment measures to what extent asset (company, real estate, infra, etc) is ready for transition
- ❑ Non-alignment ($AI \ll 0$) is an indicator of transition risk

Integration risk-return-impact

- Impact is a source of system risk: incorporate as risk premium

1. CAPM: SF – social factor; EF – environmental factor

$$r_i = r_f + \beta_i^{MKT} \cdot MKT + \beta_i^{SF} \cdot SF + \beta_i^{EF} \cdot EF$$

2. Factor model: TMN – transition risk portfolio

$$r_i = r_f + \beta_i^{MKT} \cdot MKT + \beta_i^{SMB} \cdot SMB + \beta_i^{HML} \cdot HML + \beta_i^{MOM} \cdot MOM + \beta_i^{TMN} \cdot TMN$$

- Interpretation beta for SF, EF and TMN
  - $\beta > 0$: transition risk -> non-aligned (= negative impact)
  - $\beta \leq 0$: transition ready -> aligned (= positive impact)

Summing up

1. The world is in flux
   - Transitions are useful addition to scenario analysis

2. Fifty shades of impact
   - Impact alignment measures impact in relation to social standards and ecological boundaries

3. Challenge for integrated SAA
   - Development of good transition scenarios
   - Integration of impact -> risk-return-impact framework

4. Next step: portfolio construction in integrated SAA