



# UBS CMCI Sustainability Transition



**UBS**

## Publication Details

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# Introduction

Rising inflation, supply chain disruption and market volatility continue to drive investor interest in commodities. For over fifteen years, UBS CMCI (Constant Maturity Commodity Index) has provided an enhanced beta exposure to commodity markets.

In response to the growing focus on environmental, social, and governance (ESG), UBS has launched UBS CMCI Sustainability Transition. It incorporates scoring from rfu, a leading provider of sustainable investment research, and a full cycle framework for measuring the ecological and social impact of every constituent product. This provides a liquid benchmark for investing in sustainability transition for commodities.



# The sustainability of commodities



Commodities are a unique asset class that will have an increasingly influential position in the global sustainable transition. Commodities such as timber and palm oil have become key inputs to the global economy, but their production can be associated with significant social and environmental risks. For instance, extraction of commodities is too often associated with the destruction of ecological and social structures. This could be through large-scale mining projects, clearing of arable land and pastures, and precarious working conditions in developing and emerging countries.

At the same time, commodities are the basis of change in the drive for sustainability. Without the provision of important raw materials, a reliable energy supply or food security, a transition to a greener economy would not be possible.

## What has been done so far?

Standards to responsibly procure and use physical commodities already exist. For example, sourcing local and seasonal foods, extracting metals from recycled materials or generating energy from renewable sources. However, for financial investments in commodities, only standardized products are available via capital markets. The standardization of ESG-ratings and broader sustainability analysis is still developing, limiting implementation in non-traditional asset classes.

## The challenges of applying an ESG-specific approach in commodities

Sustainability-focused investors have not had the chance to add commodities as an asset class to their portfolios due to a lack of explicitly ESG-oriented investment products. However, there is a need for investors to meet their sustainability objectives – in line with their ESG values. Exclusion or engagement approaches are being more commonly used in portfolios on a corporate level. Exclusion strategies comprise of removing certain commodities from their portfolios if the investor's values do not align, while engagement strategies may influence the production of commodities to try to effect change. Both exclusion and engagement are common approaches to meet investors' ESG objectives and are often used together.

However, it is important to note there is currently no common market standard or ESG methodology that can be applied at a product level and assessed consistently across industries and the commodities asset class.

For commodities, it is more challenging to apply an ESG-specific approach. For direct investment in commodities, it is possible to apply overweight / underweight strategies based on ESG criteria. Screening commodities could also give an (indirect) impulse to financial intermediaries such as commodity exchanges, to define ESG standards and create contracts with specific ESG characteristics. The growing market demand for green / social contract specifications should lead to further development of ESG-oriented commodities in coming years.

Sustainable transitions can take place during production or utilization. In production, this may mean increasing recycling rates or improving employment conditions. At the utilization phase, it could mean that metals are leveraged by the renewable energy sector, or crude oil becomes the basis for high performance plastics. For example, LBMA Gold has a higher sustainability rating than other types of gold<sup>1</sup> because it avoids the worst industry practices, such as human rights abuses or environmental degradation.

## ESG risks for commodities

- Climate change, extensive land use, loss of biodiversity, destruction of ecosystems and pollution
- Low human rights and employment standards, community conflicts, corruption
- Increasing wealth gap between "North" and "South"

## ESG opportunities in commodities

- Changing production technologies, such as recycling, organic
- Extended life cycles
- Green applications, such as renewable energy installations
- Critical customers, such as fair trade, green and social procurement
- Potential source of wealth for developing countries

It is therefore important that the sustainability of commodities should be assessed holistically by examining both the social and ecological aspect of commodities from both a production and utilization point of view.

<sup>1</sup> Data based on rfu's rating methodology for commodities report. For more information contact office@rfu.at

# UBS CMCI and UBS CMCI Sustainability Transition

## Partnering with rfu to incorporate ecological and social criteria to UBS CMCI

The CMCI Sustainability Transition aims to incorporate ecological and social criteria that has been developed by rfu, specialists in sustainable and investment research, to UBS CMCI and gradually improve its portfolio level Ecological-Social (E-S) score each year starting from 2021.

By incorporating commodity ecological and social data, UBS aims to minimize the deviations of this index from the CMCI, while controlling for (i) liquidity, (ii) diversification and (iii) targeting an E-S score.

Beyond the year-on-year improvement of the index E-S score, the CMCI Sustainability Transition leverages CMCI's tenor diversification to enhance the transition characteristics. Currently, the CMCI weights future tenors across the curve in accordance with a 75% liquidity and 25% equal weighting rule. For the CMCI Sustainability Transition, longer dated tenors are overweighted proportional to maturity for commodities with a higher weight than the CMCI benchmark – the goal is to increase allocation at the back end of the curve and enhance liquidity for producers.

### CMCI daily rolling methodology

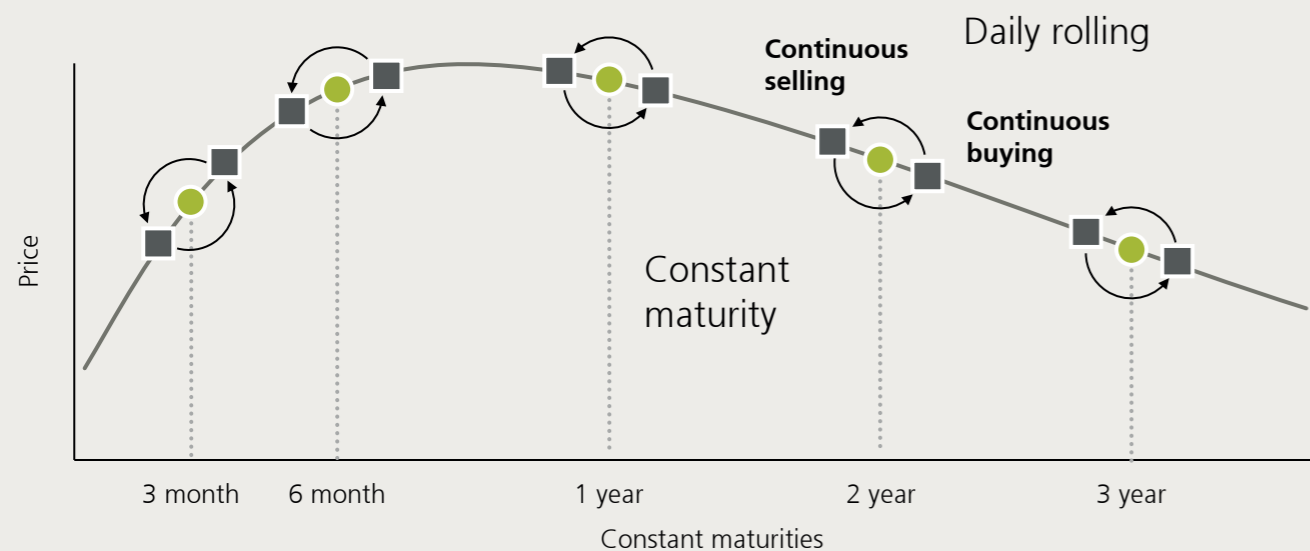


Figure 1 Source: UBS

UBS CMCI covers a broad range of commodities, and introduces a time dimension to commodity investment. With a series of investment maturities for each individual commodity and a calculation methodology reflecting an advanced approach for commodity investing, it enables investors to effectively get an enhanced beta exposure to commodity markets.

### Innovative constant maturity approach

With the CMCI, the maturity of each commodity component remains fixed at a predefined time interval from the current date at all times. This constant maturity concept is achieved by a continuous rolling process, where a weighted percentage of contracts are swapped for longer dated contracts on a daily basis.

This procedure produces a more continuous form of commodity exposure and provides a better balance of forward price behavior than with traditional indices.

### Diversification across tenors

The CMCI is the first commodity index that introduces diversification across maturities. The index takes positions across the liquid part of the futures curve and does not concentrate exposure on the front part of the curve.

### Minimizing negative roll yield

These innovative features aim to reduce the problems of negative roll yield and maximize tracking to underlying spot commodity prices, however, the methodology does not guarantee complete mitigation of negative roll yield.

### Who is rfu?

Since 1997, rfu has specialized in sustainable investment research and today has approximately EUR 30 billion in assets under research.<sup>1</sup>

Rfu has developed a methodology to assess the ecological and societal impact of commodities and to support consistent measurement of commodities against ESG related investment risks. It was developed in 2018 and expanded in 2022 to include 50+ commodities.

### Commodities coverage

Historically, the rfu coverage included 15 important metals and energy products. In 2020, coverage was expanded to over 30 products. By the end of 2022 there were 50+ commodity ratings available, including all important metals, energy and agricultural products, but also more "exotic" commodities such as pulp, lithium or emission certificates. This coverage will continue to expand to include commodity contracts with explicit ESG properties.

<sup>1</sup> rfu's ESG ratings are used by rfu's clients (for example, asset manager, asset owner) to align their portfolios with ESG requirements. The total value of these portfolios is approximately EUR 30 billion

### Traditional monthly rolling methodology

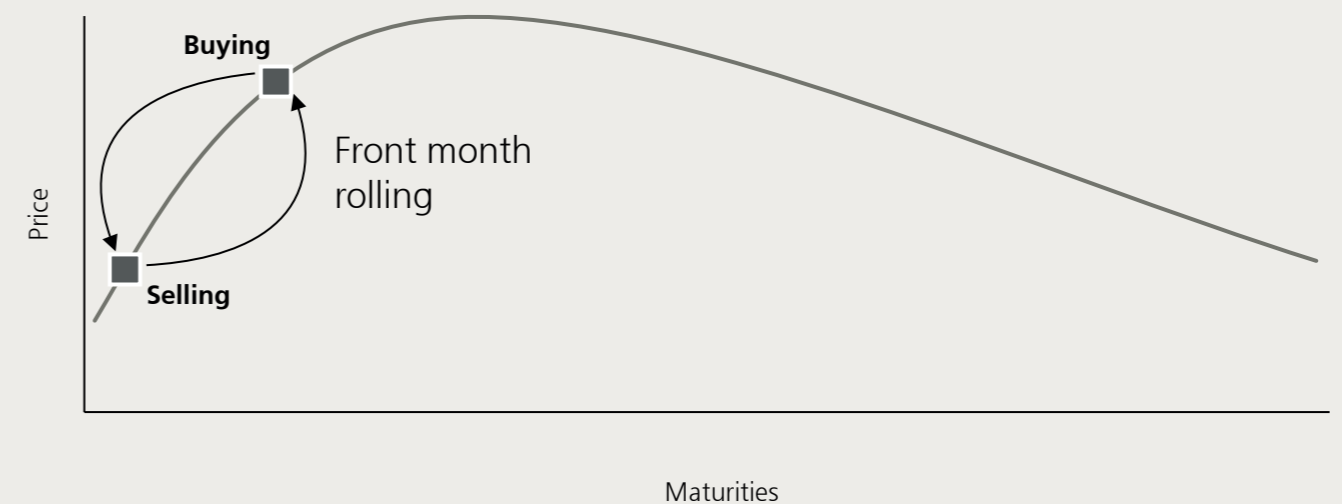


Figure 2 Source: UBS

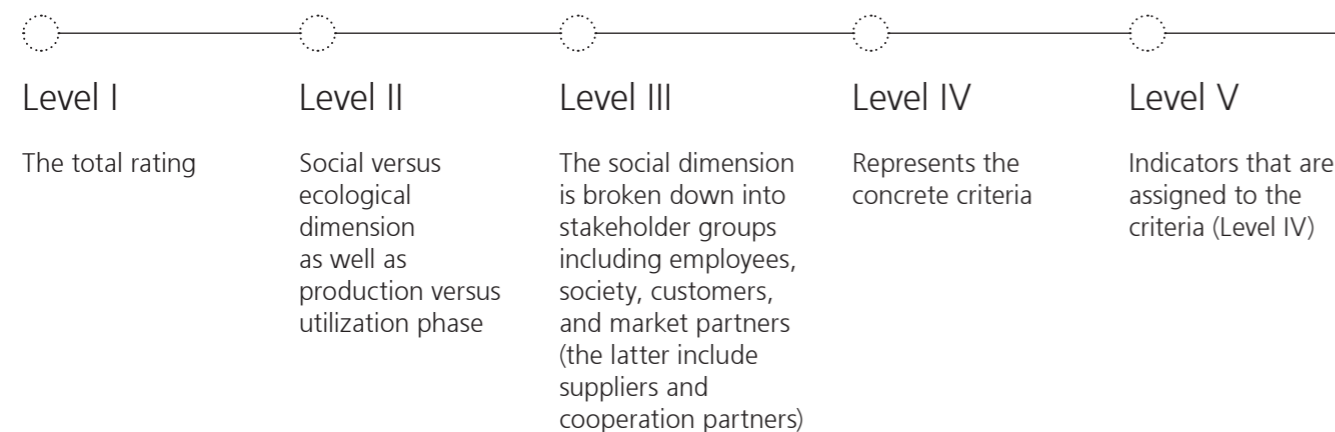
# Ecological-Social Commodity Rating

How is the rating structured?

The rfu E-S Commodity Rating assesses the social and the ecological impact of a commodity over the entire life cycle, from production to utilization.

As commodities are produced in corporate structures, the rfu E-S Commodity Rating regards commodities as hypothetical companies. Therefore, hypothetical pure play and monopolistic world commodity corporations are assumed, such as the global cooper corporation.

## The rating levels



A total rating for each commodity is calculated, based on deep analysis of contributory factors across four key areas, as shown below. Together, this results in a score on the scale from -10 to +10, transformed into a rating on the nine-point scale from C- to A+.

The weightings with which the individual criteria and dimensions are included in the overall rating are dependent on the commodity group:

- 1 Social impact**  
44%–53% weighting
- 2 Ecological impact**  
47%–56% weighting
- 3 Production impact**  
51%–60% weighting
- 4 Utilization**  
40%–49% weighting

An overview of the rating model is shown in Figure 3 which provides a more detailed look at each of these four characteristics.

Structure and levels of the rfu E-S Commodity Rating

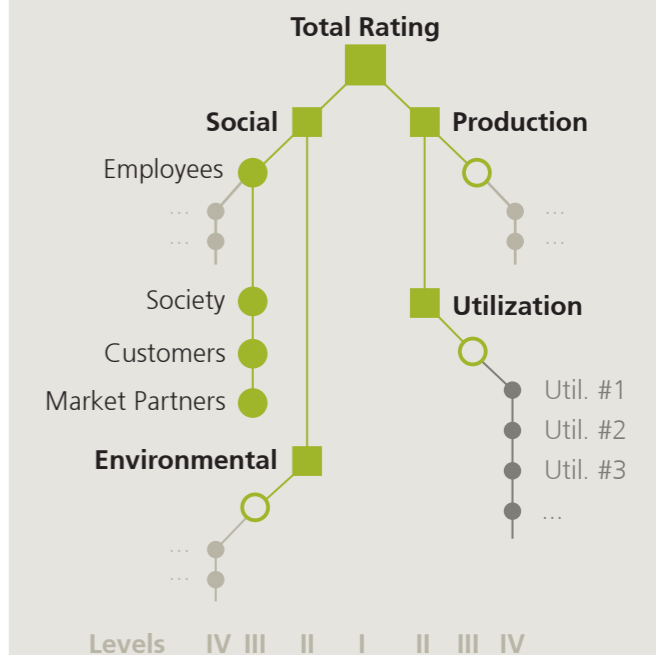


Figure 3 Source: rfu

# Ecological-Social Commodity Rating

What is the criteria and how is it evaluated?

## Production rating

Significant ecological and social effects of commodities are found in the production phase for metals, energy sources, agricultural and forestry products.

This rating is based on the geographical structure of origin of the commodity, supplemented by commodity-specific findings, based on sources such as media, statistics from international institutions, industry associations or scientific studies.

The precise analysis and assessment of the associated technologies (e.g. mining, use of secondary raw materials, metallurgical processes) and conditions (e.g. regarding working conditions, human rights, governance) is an important component in the rfu E-S Commodity Rating.

## The link between geographical origin and ecological and social risk

There are close links between the geographical origin of a product, and social and ecological risks. For example, commodities can be extracted in regions where labor and human rights standards are low, corruption may be widespread, and environmental laws are not very strict.

For these criteria, basic impacts are taken from the results of the continuously updated rfu Sovereign Rating model, which uses around 180 criteria to assess the sustainability of 160+ countries. This assessment results in the derivation of the Country Impact Score.

## Utilization rating

Commodities can be utilized in multiple, differing ways. For instance, metals can be used within general industrial applications, vehicles, medical products, renewable energy production, luxury goods or applications in the weapons industry.

For many commodities, while the production phase ratings are negative, the application can have positive social effects (e.g. for solar energy, medical technology, housing or human nutrition).

## What is the sustainable impact of the utilization and production phases?

The production and utilization phases are combined to create a joint score, with a weighting for each determined by the commodity group.

A similar combination is then created for the social and ecological characteristics to create a second score, again with weightings for each determined by the commodity group.

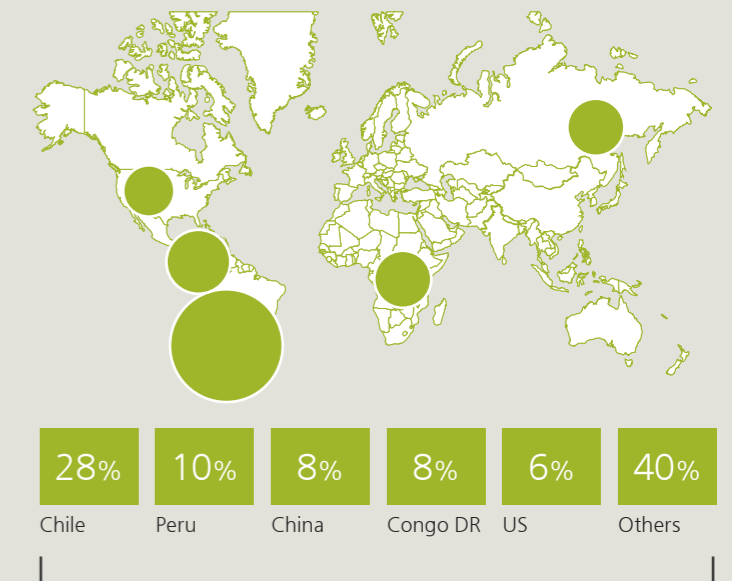
The diagram below shows the criteria of the rfu E-S Commodity Rating along the social and environmental dimensions. Each criterion also receives a secondary assignment to production or to utilization.



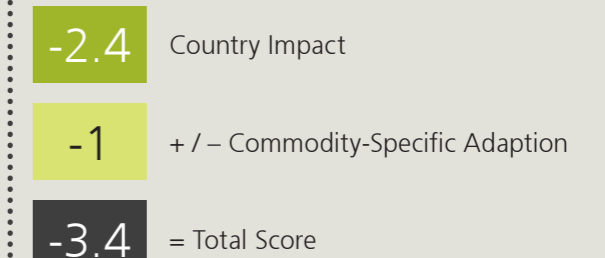
Figure 4 Source: rfu

## Example – Copper

Countries of origin



## Commodity Copper



- The basic country impact is significantly negative at -2.4 due to mining primarily in countries with widespread poverty and low income.
- Wage related conflicts were observed. In some countries partly strong unionization exist. Altogether this leads to an adjustment by -1 to -3.4.

Figure 5 Source: rfu

# Case study - nickel

In the following example, nickel has an E-S score of -1.6 and rfu is assuming a neutral trend rating.

The nickel E-S score can be viewed as Production versus Utilization and as Social versus Ecological, with the underlying Level IV scores and weightings included in the figure.

## How did rfu reach this score?

### Production

For production, major deposits of nickel can be found in Australasia and Russia. Key Brazilian and Russian mining industry companies account for one third of the total market. This basic impact together with the commodity-specific adaptations leads to a significantly negative production score at -3.1.

### Utilization

The metal is mostly used for stainless steels and alloys due to the steel corrosion resistance, hardness, and toughness nickel provides. Nickel is used in the following industries: Engineering, Metal Products, Transportation, Construction, Electricals / Electronics (including batteries). These contribute positively to nickel's utilization score. However, nickel's application in traditionally controversial industries such as chemical, oil and gas detracted from its overall higher utilization score, which altogether leads to an assessment for utilization at 0.5.

### Social

The diagram shows the social risks regarding labor standards, human rights and community relations are increased in several countries. As a result, the social basic impact resulting from the regional structure of production together with the commodity-specific adaptations and the social effects of utilization is negative at a score of -1.9.

### Environmental

Compared to other metals, the production of nickel has a rather moderate climate impact, the recycling rate is high and human and environmental toxicity is relatively low. Together with the environmental impact of utilization the environmental score is negative at -1.2.

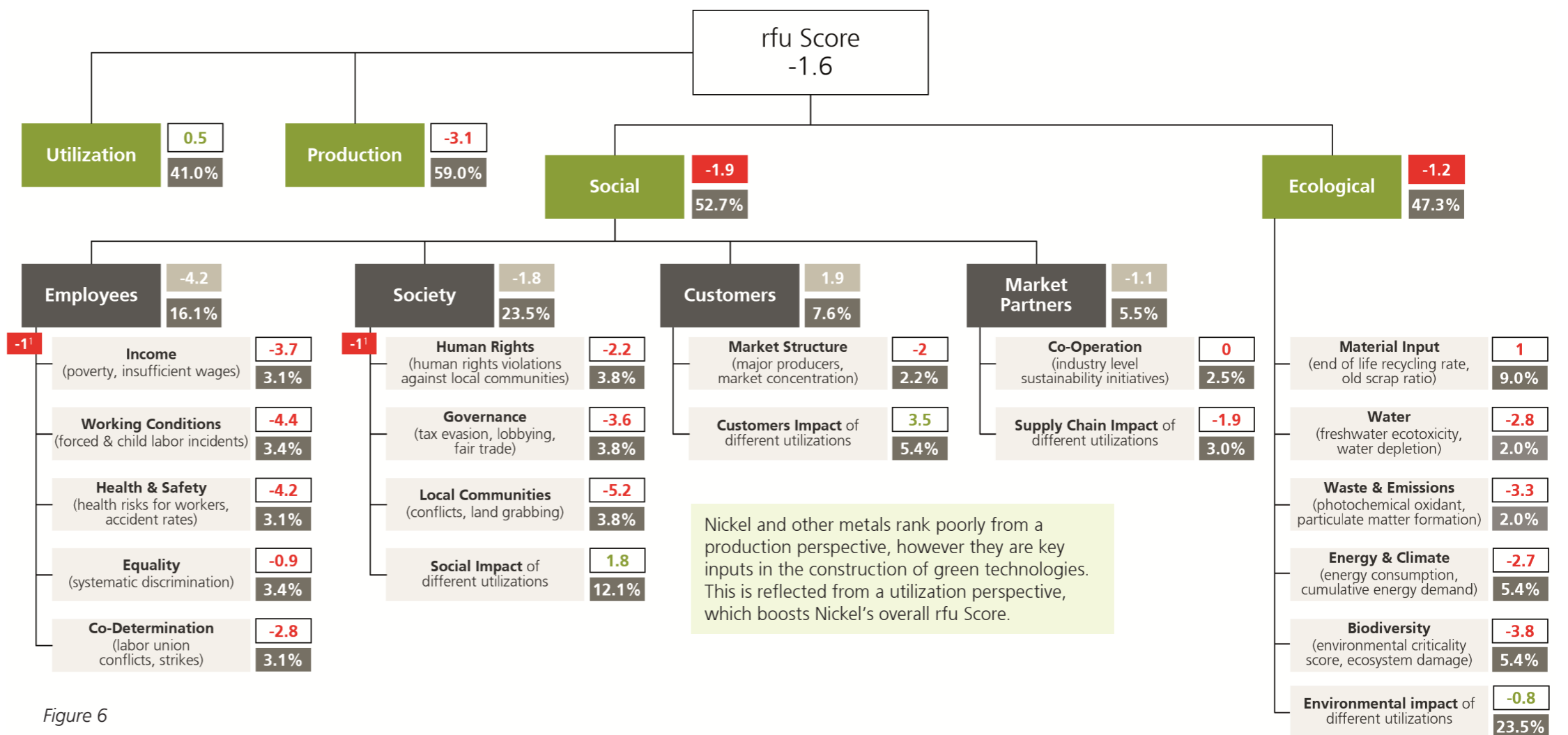


Figure 6

Source: UBS, rfu

Notes: For illustrative purposes only

- 1 rfu's model assigns penalization / bonus points ranging from -3 to +3, depending on the extent of controversies found within a stakeholder. rfu Score and rfu Trend come from rfu
- 2 Income (score = -3.7) is an important criterion for the employees involved in the production process. To calculate a basic regional risk factor, four poverty and income distribution indicators are applied: the poverty headcount ratio at USD5.50 a day (in % of population), the MPI (Global Multidimensional Poverty Index) of UNDP (United Nations Development Programme), the GINI coefficient and the Palma ratio. This leads to a basic regional impact of -1.7 what represents the evaluation of nickel, because nickel is primarily mined in countries with medium poverty ratios and low income (25% Indonesia, 14% Philippines, 11% Russia). Then income-related statistics, studies or articles are searched for each commodity. The findings can range from precise data (e.g., two-thirds of African cocoa farmers live below the poverty

line) to soft information (e.g., prevalence of income-related conflicts or collective bargaining schemes in media articles and scientific papers). In the case of nickel, traditionally strong trade unions exist. Wage related protest and controversies took place in several countries, including Indonesia's biggest Nickel smelter and the Philippines. This reduces the score by -2 to -3.7. With a weight of 4.6% this score contributes to the total rating

- 3 To evaluate the relationship to "Local Communities", the Freedom House Index is currently applied as a proxy to assess the country-specific risks for the local population. In the commodity-specific research pervasiveness and intensity of conflicts with local communities concerning the exploration and processing or resources are analyzed via media research and databases (e.g., EJOLT / ENVJUSTICE research project). The resource curse paradox given (countries underperform economically, despite being home to valuable natural resources) rfu try to evaluate in

how far local communities benefit from raw material extraction and processing by including aspects such as the extend of local ownership and decision making

- 4 And finally, the "Climate Change" criterion should serve as an example. rfu use various indicators to evaluate country-specific climate impacts including production and consumption-based GHG emissions, trends for energy mix and renewables as well as the countries climate change policies. In a second step rfu collect cradle-to-gate ecological impacts for all commodities, first and foremost from life cycle assessments. Finally, information on the potential to reduce climate change impact are collected



# Ecological-Social Commodity Rating

## Processes and documentation

The documentation of the ratings includes the complete data sets. These consist of ratings, scores, weightings and description, and interpretation of the criteria. Fact sheets for the individual commodities are also created from this documentation.

The dynamic change in the sustainability characteristics of commodities is relatively low compared to individual companies and is more likely to be seen in the medium term. Therefore, the analyses and ratings are updated every two years.

Significant events, for example environmental accidents or industrial conflicts are usually taken into account via the risk-oriented and global view, so that the ongoing news flow is already anticipated. In exceptional cases more frequent updates may be made.

### Quality management and ongoing optimization of the methodology

The research processes at rfu are subject to a quality management system assessment certified in accordance with ISO 9001. As part of this, process descriptions, quality indicators and continuous improvement processes (CIP) exist for commodity research.

At the methodology level, quality management includes the ongoing collection of experiences and feedback, and regular optimization of the methodology. Here, however, the principle of continuity is paramount and historical rating time series claim comparability.

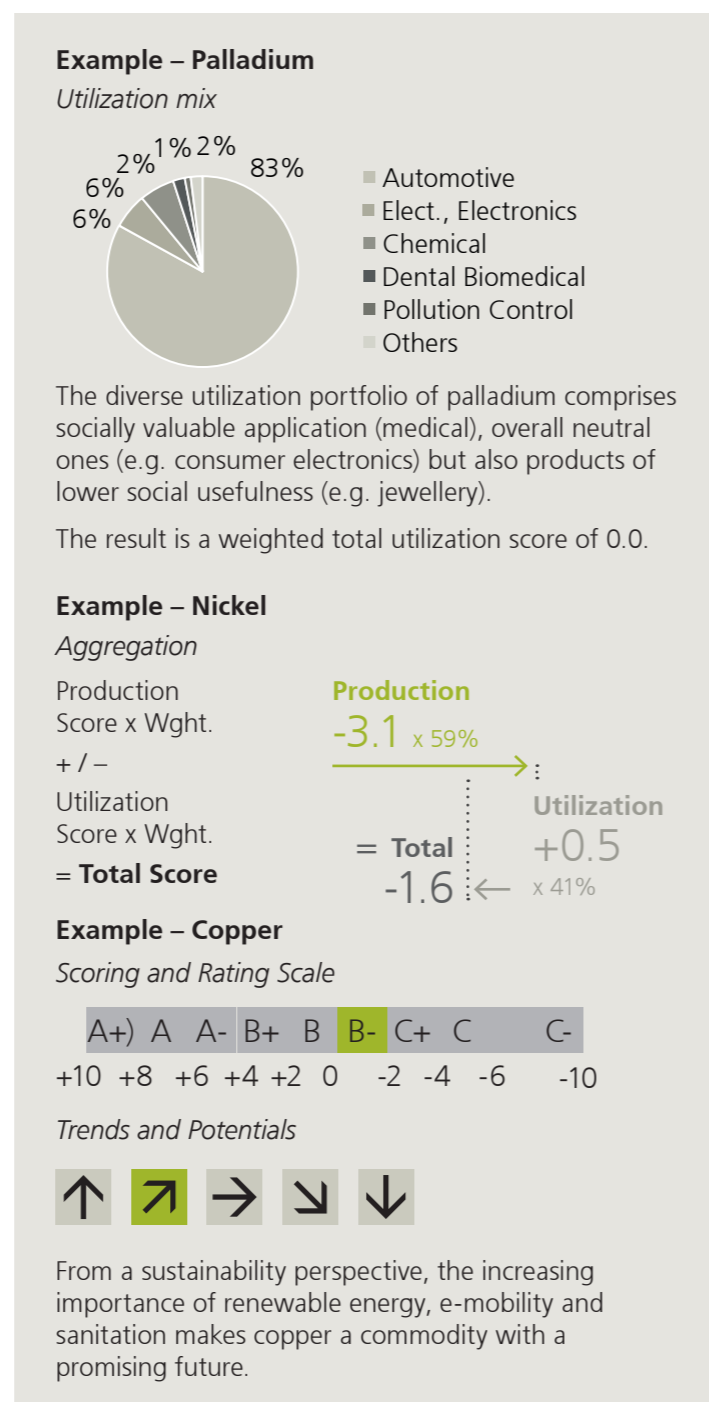


Figure 7 Source: rfu



### Balancing economic relevance and E-S transition

The graph below shows how the transition will hypothetically work if there is no change in scores or CMCI weights. However, this transition will likely be very different over the next 10 years.

CMCI Sustainability Transition will likely include more commodities with better E-S rating as they become commoditized and liquid (commodities such as carbon futures, cobalt, lithium, renewable electricity, etc.).

The scores will likely change considerably with new technologies, utilization and recycling rates.

The availability of energy is essential for the fulfillment of basic needs, particularly in the Southern Hemisphere. Despite rapidly rising energy consumption 733 million people or 9% of global population still lack access to modern electricity<sup>1</sup>.

The production impact can also vary quite substantially for fossil fuels. Exchanges and trade associations can also have a significant impact, for instance, LBMA Gold and Silver have a higher recycling content than the global average<sup>2</sup>. There continues to be a gap in the recycling potential of metals, for example, the gap is low for gold while for zinc less than half of the potential amount is recycled.<sup>3</sup>

The digitization of agriculture could reduce the use of pesticides by up to 90%<sup>4</sup>. However, the rebound effects must be considered.

With new technologies or the expansion of intensive production on previously unused or only extensively used or ecologically valuable land, there would be an increase in energy consumption.

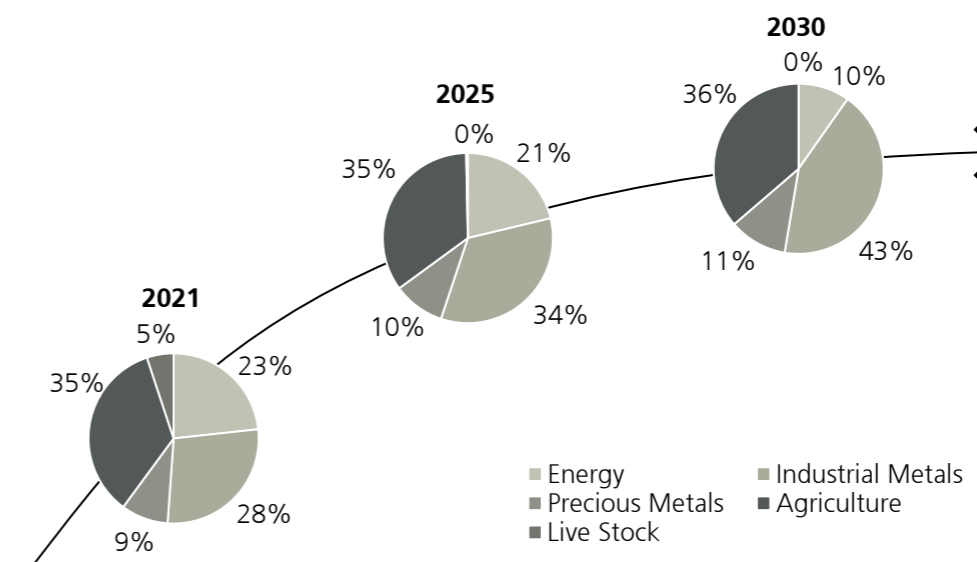


Figure 8 Source: UBS Transition from CMCI

1 World Bank: <https://www.worldbank.org/en/news/press-release/2022/06/01/report-covid-19-slows-progress-towards-universal-energy-access>  
2 LBMA Sustainability and Responsible Sourcing Report 2022  
3 2021: Theo Henckens – Scarce mineral resources: Extraction, consumption and limits of sustainability  
4 Pestizidatlas – Heinrich Böll Stiftung, Global 2000

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