Program: Global Economic Governance and Public Affairs

Course: The challenges of global risk management: does governance matter?

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Country Report for the EnBW Energie Baden-Württemberg

Peru vs. Colombia

Nice (24.05.2021)

I. Introduction

Frank Mastiaux, CEO of the German energy company "EnBW Energie Baden-Württemberg", instructed us[1] to conduct a country risk analysis for expanding onto the South American market. The EnBW focuses on sustainable energy sources, seeking to invest in the development of wind technologies in promising emerging markets. Peru and Colombia constitute especially attractive investment destinations due to their geography, the lack of large-scale utilization of wind power as well as the limited competition. Both countries are situated at the coastline generating high wind speeds that enable an economically viable utilization of wind power and allow for the construction of wind parks. The potential in terms of wind power generation, however, has not been fully exploited yet offering enormous opportunities for foreign companies to enter the market.

In the following, a comparative risk analysis of Peru and Colombia will be presented. The attractiveness of the two countries as investment destinations will be examined by assessing social, economic, environmental, cultural, and political risks. The report will be concluded by a recommendation on which country to invest in.

II. Social Risk

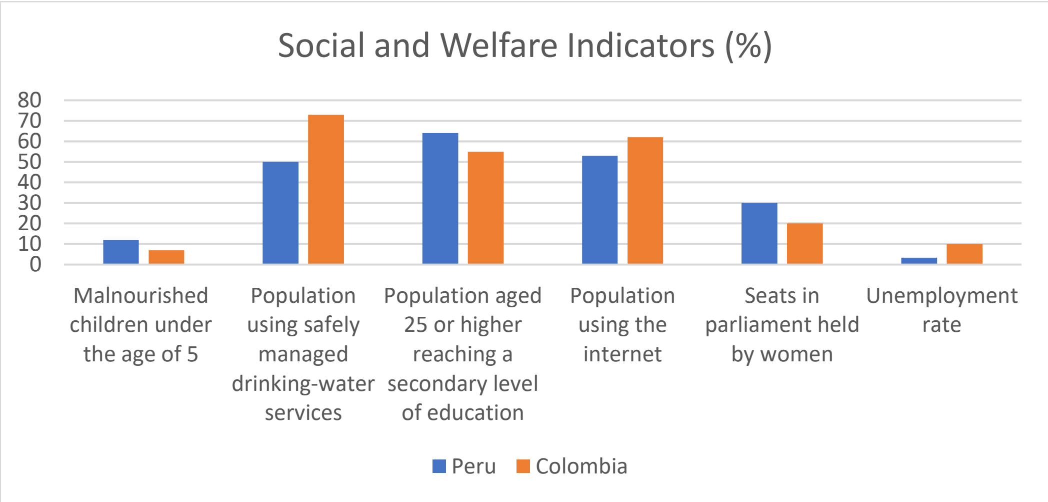
An enabling environment which allows for a decent standard of living is crucial to the success of a project abroad. The level of development is closely related to a country's attractiveness as an investment destination. Examining social and demographic indicators therefore is a basic component of assessing country risk.

First, Peru's total population was estimated at 32,51 million in 2019 with a population growth of 1.6%. Similarly, the Colombian population, currently at 50,33 million, is projected to continue growing at a rate of 1.4%.[2] Both populations were moderately increasing during the last decade allowing for promising and stable long-term market prospects.

[1] Authors of the report: Ludovica Formicola, Sophie Medd and Alicia Beck – Project managers Wind Energy EnBW

[2] The World Bank – Data 2019. Available at: https://data.worldbank.org/?locations=CO-PE.

On the UNDP's Human Development Index, which constitutes a summary measure of the average achievements of 189 countries in the fields of health, education, and standard of living, Peru and Colombia respectively are ranked 79 and 83.[3] The similar position in the ranking indicates the country's striking resemblance in various factors. In Peru and Colombia, the life expectancy is approximately 77 years, the expected years of schooling sum up to about 15 years, the median age is 31 years old and the child mortality rate of children under 5 amounts to 1.4%.[4] However, there are multiple indicators in which the two countries achieve different scores, and which potentially influence our investment decision.



[5]

Concerning health, Peru displays weaknesses. 12% of Peruvian children under the age of 5 are malnourished, significantly exceeding the 7% in Colombia. Additionally, 50% of the Peruvian population is using safely managed drinking-water services, roughly 23% less than in Colombia. The health measurements indicate that the Colombian health care system is superior or more accessible than the Peruvian one, which is relevant for ensuring medical care for local as well as foreign employees.

[3] UNDP – Development Index Ranking. Available at: http://hdr.undp.org/en/content/latest-human-development-index-ranking.
[4] The World Bank – Mortality Rate under 5 (per 1,000 live births). Available at: https://data.worldbank.org/indicator/SH.DYN.MORT?locations=PE-CO.
[5] All data retrieved from the UNDP Human Development Reports – Colombia, Peru. Available at: http://hdr.undp.org/en/countries/profiles/COL#; http://hdr.undp.org/en/countries/profiles/PER.

When taking a closer look at the education in the two countries, a different picture emerges. About 55% of Colombia's population aged 25 or higher reached a secondary level of education, compared to 64% in Peru. These data seem of utter importance for our investment decision considering our need for well-educated local employees. The comparably low percentage in Colombia likely results in a more competitive labour market, the risk of not being able to staff positions and increased costs of high skilled labour.

The standard of living comprises poverty and security indicators. In Peru approximately 10% of the employed population live on less than PPP $3.20 a day, doubling the percentage of Colombia. Moreover, 53% of Peruvians are using the internet, compared to 62% of Colombians and less people in Peru have access to electricity. This reduces the number of potential private customers purchasing sustainable energy. Our business model cannot work successfully without the existence of a comprehensive basic infrastructure. Electricity and internet access are the key to obtaining unbiased data and implementing sustainable solutions.

Apart from demographics, infrastructure and education, the societal composition as well as the gender structure play a major role in determining a country's risk. Since 2018, Colombia is experiencing a large flow of migrants from Venezuela. By now the country is home to 1.7 million displaced Venezuelans[6] and the immigration wave is likely to continue, affecting the political stability and causing uncertainty, poverty, and unemployment. Furthermore, the level of gender equality in the two countries differ. In Peru, about 30% of seats in the parliament are held by women whereas in Colombia 20% of parliamentarians are female. Moreover, the gender inequality index of the UNDP positions Peru at rank 87 and Colombia at 101.[7] In our company, a large proportion of managers are female. In countries in which women in leadership positions are rare, our managers may have difficulties being accepted and respected.

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[6] UNHCR – UNHCR and IOM welcome Colombia's decision to regularize Venezuelan refugees and migrants. Available at: https://www.unhcr.org/news/press/2021/2/60214cf74/unhcr-iom-welcome-colombias-decision-regularize-venezuelan-refugees-migrants.html.
[7] UNDP – Gender Inequality Index. PDF available at: http://hdr.undp.org/sites/default/files/2020_statistical_annex_table_5.pdf.

Lastly, social welfare indicators need to be considered. The Colombian Gini coefficient of 50.4 is about 8 points higher than the Peruvian one stating that income in the latter is more equally distributed. With $6,740 the GNI per capita in Peru is $230 higher than the one in Colombia. The higher the GNI, the higher the number of potentially solvent debtors.

The unemployment rate in Colombia is 9.9% being therefore almost three times as high as the one in Peru.[8] Colombia's unemployment rate is particularly worrying when applying it to the youth aged 19-25 where it reaches 19%, compared to 8% in Peru. All these factors result in a lower number of private households that may require our electricity or will be able to reliably pay their bills.

III. Economic Risk

Macroeconomic indicators are key for determining sustainable growth and the likelihood of an amortization of our investment.

Table 1: Macroeconomic Indicators

	GDP ($ billion)		Real GDP Growth (%)		Public Debt (% of GDP)		FDI Inflow ($ billion)		Inflation (%)		Labour Productivity (GDP constant 2011 international $ in PPP)		Minimum Wage (in $ as of January each year)	
	PER	COL	PER	COL	PER	COL	PER	COL	PER	COL	PER	COL	PER	COL
2019	230,75	323,38	2.2	3.3	27.1	52.3	8,9	14,3	2.1	3.5	23,024	28,301	$279	$252
2020	203,77	277,46	-11.1	-6.8	35.4	62.8	--*	--*	1.8	2.5	--*	--*	$275	$267
2021	225,92	295,61	8.5	5.2	35.4	64.2	--*	--*	2.0	2.1	--*	--*	$258	$260

* No data available [9]

First, Colombia's GDP is larger than Peru's. In 2020, both GDPs declined but Peru's economy particularly suffered due to the strict and prolonged lockdown in the COVID-19 pandemic.[10] However,

[8] The World Bank – Unemployment, total (% of total labour force) (national estimate) – Peru, Colombia. Available at: https://data.worldbank.org/indicator/SL.UEM.TOTL.NE.ZS?locations=PE-CO.

[9] All data retrieved from the following sources: International Monetary Fund – Colombia The World Bank – The World Bank in Peru. https://www.worldbank.org/en/country/peru/overview; International Monetary Fund – Real GDP growth. https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD/PER/SMQ; International Monetary Fund – Colombia. https://www.imf.org/en/Countries/COL#countrydata; International Monetary Fund – Peru. Available at: https://www.imf.org/en/Countries/PER; International Labour Organization – Global Wage Report 2020-21. PDF available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_762534.pdf; Federal Reserve Bank of St.Louis – FRED Economic Data. Available at: https://fred.stlouisfed.org/.

[10] The World Bank – The World Bank in Peru.

the Peruvian economy is expected to stabilize at rates close to the ones recorded during pre-Covid times. In 2021, the GDP of Peru is estimated to experience an 8.5% growth, representing one of the fastest-growing economies in the region.[11] Concerning the public debt measured as the percentage of GDP, Colombia's debt is roughly twice as high as the Peruvian one.

When examining the macroeconomic indicators, special consideration needs to be given to the persistent problem of informal employment. In 2019, 73% of employed work in Peru was in informal conditions, one of the highest percentages in Latin America. During the same year, the percentage of informal employment in Colombia reached 62.1% of the total employed population.[12] Peru's already big informal sector is likely to expand further amid the ongoing Covid-19 crisis.[13]

From 2015 to 2020, Colombia's inflation rate has declined from 7.5% to 2.5% but is expected to rise reaching 2.9% in 2025. The inflation rate in Peru has experienced a less drastic decrease of 1.5% and is estimated to stagnate at 2.0% during the subsequent years.

Comparably low labour costs and a high labour productivity are crucial for a successful investment. Between 2010 and 2019 the annualized productivity in Peru grew by 3.0% compared to a 2.5% growth in Colombia. Nevertheless, the overall labour productivity in Colombia still exceeds the one in Peru. In the same time frame, Peru's annualized real minimum wage increased by 2.4%. In 2018, the Peruvian government set the new minimum wage, which excludes domestic workers, at 930 PEN. The Colombian real minimum wage increased by 1% less than the Peruvian one, amounting to 877,803 COP in 2020.[14] It seems crucial to underline however, that in comparison to the Peruvian government, the Colombian government steadily raised the minimum wage as measured in COP during 2018 and 2021.

https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD/PER/SMQ.

[12] International Labour Organization – Informal Employment by Sex (thousands) – Annual. Available at: https://www.ilo.org/shinyapps/bulkexplorer2/?lang=en&segment=indicator&id=EMP_NIFL_SEX_NB_A.

[13] International Labour Organization – Rapid response to Covid-19 under high informality? The case of Peru. PDF available at: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_746116.pdf.

[14] International Labour Organization – Global Wage Report 2020-21.

Moreover, the average monthly earnings of employees in Peru amounted to 1585.1 PEN in 2019, roughly $475, compared to 1306,012.2 COP that equal $398.1.[15]

The majority of our expenses, especially during the implementation phase of our investment, will need to be paid for in € but our income will be received in the country's domestic currency. In 2020, the average exchange rate of the PEN to the € was 3.9, increasing to 4.3 in January 2021 where it currently still is.[16] According to Moody's, the PEN ranks one of the stronger and less volatile currencies in Latin America, having historically low probabilities of depreciation and a stable exchange rate.[17] Colombia, however, has historically experienced more volatility but is not facing imminent threats caused by a potential currency depreciation. During 2020 the €-COP exchange rate remained predominantly stable with 1€ resembling 4,216 COP.[18] Closely related to the exchange rate risk is the transfer risk, which measures the risk of currency inconvertibility. The transfer risk in Peru is considerably lower than the one in Colombia.[19]

Another important indicator for an economy's strength is the trade openness ratio, measured as the sum of a country's exports and imports as a share of that country's GDP.[20] [21] In this context it may further seem essential to examine the two country's preferential trade agreements, the nontariff measures in effect as well as the trade-weighted average tariff rate to determine the potential costs of purchasing foreign goods.[22] In all three categories Peru has an advantage over Colombia. However, both countries have a comprehensive trade agreement with the EU, which will be our most important trading partner.[23]

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15 International Labour Organization – Mean nominal monthly earnings of employees by sex and economic activity – Annual. Available at: https://www.ilo.org/shinyapps/bulkexplorer51/?lang=en&segment=indicator&id=EAR_4MTH_SEX_ECO_CUR_NB_A.

16 Deutsche Bundesbank – Exchange rate statistics. PDF available at: https://www.bundesbank.de/resource/blob/810480/9bc27834f01d808316840b93f4167d5c/mL/0-wechselkursstatistik-data.pdf.

17 Moody's Analytics - Latin American Currency Highlight. Available at:https://www.moodysanalytics.com/-/media/article/2019/latin-american-currency-highlights.pdf

18 Deutsche Bundesbank – Exchange rate statistics.

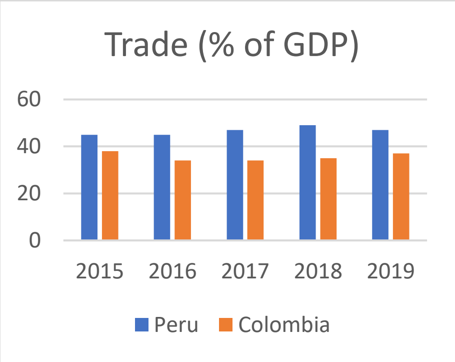
19 The Global Economy - Transfer Risk – Country Rankings. Available at: https://www.theglobaleconomy.com/rankings/transfer_risk/.

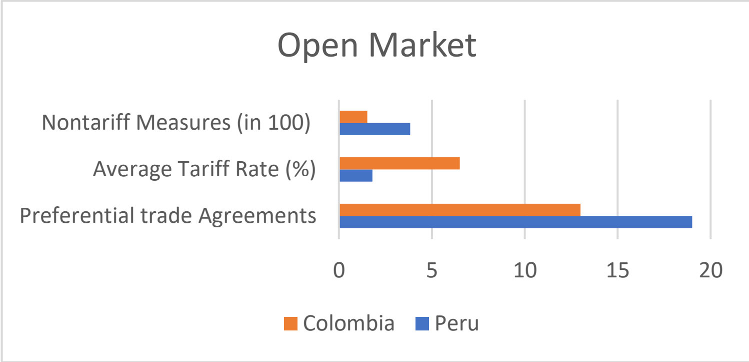
20 UNCTADSTAT – General Profile Peru. Available at: http://unctadstat.unctad.org/countryprofile/GeneralProfile/en-GB/604/index.html.

21 UNCTADSTAT – General Profile Colombia. Available at: https://unctadstat.unctad.org/CountryProfile/GeneralProfile/en-GB/604/index.html.

22 The Heritage Foundation – 2021 Index of Economic Freedom. PDF available at. https://www.heritage.org/index/pdf/2021/book/index_2021.pdf.

23 European Commission – Countries and Regions. Available at: https://ec.europa.eu/trade/policy/countries-and-regions/regions/andean-community/.





In the 2021 Index of Economic Freedom, Peru and Colombia are respectively ranked 49 and 50. Peru's weaknesses identified by the index include the comparably weak rule of law, which is reflected in lower scores for property rights, judicial effectiveness, and government integrity, and the need to make further reforms in the labour code. The lower regulatory quality may pose high financial risk because claims cannot be enforced in a timely and cost-effective manner. A low level of government integrity may complicate obtaining the required permits and make their extension or renewal more costly. On the other hand, Colombia's government spending and fiscal health indicators contradict the government's stated commitment to making budgetary reforms.[24]

The corporate tax rate in Colombia has been cut to 32% in 2019, compared to Peru's top corporate tax rate of 29.5%. However, in 2020, the Colombian government has provided billions in subsidies to producers of electrical energy, natural gas, and liquefied petroleum gas.[25] Moreover, certain fiscal incentives, such as an income tax deduction, have recently been implemented for attracting investment in the renewable energy sector. According to the National Energy Plan through 2050, energy demand will increase by around 60% by 2050. Peru also provides subsidies for electricity, planning that renewables should account for 60% of the electricity mix in 2025. ISQ, Engie, and Electroperu are the main electricity producers, holding 55% of the total capacity.[26]

[24] The Heritage Foundation – 2021 Index of Economic Freedom.
[25] Ibid.
[26] EnerData - Peru Energy Report. Available at: https://www.enerdata.net/estore/country-profiles/peru.html.

In the 2020 Doing Business Index as well as in the Rule of Law Index Colombia is outperforming Peru. Only when assessing the sovereign rating, Peru is ranked better. S&P's credit rating for Peru was last set at BBB+ with stable outlook, whereas Colombia stands at BBB- with negative outlook.

Table 2: Rankings

	Index of Economic Freedom (Heritage Foundation)[27]	Doing Business Index (World Bank)[28]	Business Climate Assessment (Coface)[29]	Rule of Law Index (World Justice Project)[30]	Sovereign rating (S&P)[31]
Peru	49	76	A4	80	BBB+
Colombia	50	67	A4	77	BBB-

IV. Environmental Risk

To make an informed choice on where to expand the market of an energy company, environmental risk indicators are essential to take into consideration. According to SACE group cdp, both Peru and Colombia have a score of 16/100 in climate change risk, which is considered to be low. The indicators used to assess the environmental risk of both countries are emissions, fossil fuels, renewables, electrification and efficiency.

Table 3: Environmental Indicators

Indicators	Peru (0-100)	Colombia (0-100)
Emissions	81	81
Fossil Fuels	53	53
Renewables	45	55
Electrification	64	66
Energy Efficiency	84	90

[27] The Heritage Foundation – 2021 Index of Economic Freedom.
[28] The World Bank – Doing Business 2020. PDF available at: http://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf.
[29] Coface – Comparative Table of Country Risk Assessment. Available at: https://www.coface.com/Economic-Studies-and-Country-Risks/Comparative-table-of-country-assessments/(ca)/198.
[30] World Justice Project – WJP Rule of Law Index. Available at: https://worldjusticeproject.org/rule-of-law-index/.
[31] S&P Global Ratings – Sovereign Risk Indicators 2021 Estimates Available at: https://www.spratings.com/sri/.

The indicators based on emissions, calculated on the level of Co2 emissions per capita, air pollution and carbon intensity in the air, for both Peru and Colombia have a score of 81/100, meaning that the level of emissions is rather low. The indicator for fossil fuels, based on the level of oil, gas and coal reserves present in the country, and on the percentage of energy coming from fossil fuels, has a score of 53/100 for both countries. The indicator for renewables, based on the percentage of energy coming from renewables in Peru scores 45/100, while in Colombia 55/100. Peru also slightly overperforms Colombia in the indicator based on access to electricity, electrification level of energy consumption and level of electricity distribution, scoring 64/100 against Colombia's score of 66/100. The energy efficiency indicator, based on the rate of grid losses in electricity distribution, energy intensity of the economy, and distribution of *clean* energy, scores 84/100 in Peru and 90/100 in Colombia.[32] [33]

It is fair to conclude that Colombia and Peru are almost perfectly aligned on climate change risk indicators and face difficulties in the same areas, notably infrastructure and regulation in the energy sector to facilitate the shift towards sustainable energy production. Furthermore, wind power is not yet utilised on a large scale from neither Colombia nor Peru and both countries have abundant wind energy potential that still remains unexploited.

The Ministry of Energy and Mining of Peru has estimated the country's feasible potential for electricity generation to be 22 GW. However, as of 2019, its installed capacity holds 372.2 MW. Peru's wind energy potential is mainly concentrated in the northern coastline and in the Andes mountain range, notably in the nine regions of Amazonas, Ancash, Arequipa, Cajamarca, Ica, La Libertad, Lambayeque, Lima and Piura. Thus, onshore wind energy is most attractive for foreign investments. The Peruvian government's plan to reach a 15% share of renewables in its energy mix by 2030 will provide a favourable regulatory environment for foreign businesses in the renewable energy sector in the upcoming years.[34]

[32] SACE group cdp - Country Risk Map: Peru. Last update: 10/05/2021. Retrieved from: https://www.sace.it/mappe#/mappe/risk-map/pe.
[33] SACE group cdp - Country Risk Map: Colombia. Last update: 10/05/2021. Retrieved from: https://www.sace.it/mappe#/mappe/risk-map/co.
[34] Mordor Intelligence - Peru Wind Energy Market - Growth, trends, Covid-19 Impact and Forecasts (2021-2026). Available at: https://www.mordorintelligence.com/industry-reports/peru-wind-energy-market.

In Colombia, the potential for electricity generation is estimated at 21 GW, yet as of 2019 the country holds an installed capacity of 18.42 MW. 18 GW of Colombia's wind potential are concentrated only in the La Guajira Peninsula, which may cover more than seven times the national energy demand if fully exploited. Provided that 18 new wind power projects are estimated to secure 2,531 MW by 2022, the country is expected to witness a growth in both offshore and onshore wind energy production in the future.[35]

According to studies conducted by Mordor Intelligence on the wind energy market, in the 2020-2025 forecast period Peru is expected to grow at a Compounded Average Growth Rate (CARG) of 11.6%, while Colombia's CARG expectancy is 1.2%.

The development of the countries' wind energy generation in the past was hindered by a weak regulatory framework needed for the growth of the renewable energy sector, lack of infrastructure and little investments. Specifically, in Colombia the Unit of Mining and Energetic Planning (UPME) of the Ministry of Mines and Energy has failed to implement a long-term development strategy in the energy sector starting from the early 2000s. Additionally, regions high on wind power potential are poorly connected to national electricity grids.[36] In Peru, the lack of a reliable record of wind potential, the lack of human and technical resources, together with the low financial investments have represented a major challenge.[37]

Certainly, emerging markets face several difficulties in implementing measures needed to mitigate climate change, notably to achieve the targets embedded in the United Nations Sustainable Development Goals (SDGs) and fulfil the commitments taken through the submission of their Nationally Determined Contributions (NDCs). Countries with weaker markets with less resilient social structures are more vulnerable to environmental, social and governance (ESG) risks. However, it is

[35] Mordor Intelligence - Colombia Wind Energy Market - Growth, trends, Covid-19 Impact and Forecasts (2021-2026). Available at: https://www.mordorintelligence.com/industry-reports/colombia-wind-energy-market.
[36] Davide Serraino, SACE group cdp - Focus on Colombia: "La Colombia riparte tra pragmatismo e nuove ambizioni". PDF Available at: https://www.sace.it/studi/dettaglio/focus-on--la-colombia-riparte-tra-pragmatismo-e-nuove-ambizioni?_ga=2.82610582.1462169274.1620638856-1960672662.1620638856.
[37] Transcript of the "I Congresso sobre biocombustibiles y energias renovables", May 2007. Available at: https://web.archive.org/web/20071122185549/http://www.minem.gob.pe/archivos/ogp/GVEP/6%20Mayorga%20Emilio%20CI.pdf.

important to consider that emerging markets, including both the Peruvian and Colombian, have launched a series of sustainable finance initiatives that are of particular interest. As part of the Sustainable Banking Network, both countries have adopted policies and principles aimed at improving ESG risk management and increasing capital flows to initiatives with a positive environmental impact. Both countries have joined a pilot project developed by the Natural Capital Finance Alliance (NCFA) to issue a guide for assessing natural capital risk. From an individual standpoint, Colombia has adopted sustainable finance guiding principles in 2012, which have been updated in 2017. In 2015, Peru developed a set of environmental and social risk management guidelines, followed by the adoption of green bond guidelines in 2018.[38]

V. Political and Cultural Risk

Corporate Strategic Impact: We are a purpose led business which puts a major focus on the implications for people and the planet when making investment decisions. We have a full ethics and sustainability strategy.[39] The approach to our ethics and sustainability strategy is guided by reporting frameworks such as the UN Sustainable Development Goals[40] and the Global Reporting Initiatives' Sustainability Reporting Guidelines.[41]

It is essential that every person in our company and supply chains are treated fairly and rewarded for their work. We continue to identify risks which may impact on high labour standards and hinder our ability to impact positively on the lives of all workers. We follow the United Nations Guiding Principles on Business and Human Rights[42] to help us identify our highest risks.

Our ethics and sustainability strategy forms the basis of our risk register when considering all aspects of our business, including expansion overseas into new markets. To ensure that this risk is assessed

[38] Sustainable Banking Network, Global Progress Report 2019: Innovations in Policy and Industry Actions in Emerging Markets. October 2019. International Finance Corporation, World Banking Group.
[39] EnBW – Nachhaltigkeitsansatz. Available at: https://www.enbw.com/unternehmen/nachhaltigkeit/nachhaltigkeitsansatz/.
[40] The United Nations – Sustainable Development Goals. Available at: https://sdgs.un.org/goals.
[41] GRI – The global standards for sustainability reporting. Available at: https://www.globalreporting.org/standards/.
[42] United Nations - Guiding Principles on Business and Human Rights. PDF available at: https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf.

fully we have conducted a political and cultural risk assessment of the two countries we are looking to invest in.

Methodology: We start the comparison with the respective regional political risk scores for both countries as given by the PRS Group and the Political Risk Index.

With the above corporate strategy in mind, we take a deep dive into assessing political risk across both Peru and Columbia using the Freedom in the World Annual Report Index on political rights and civil liberties. This is because the report's methodology is derived from the Universal Declaration of Human Rights, as adopted by the UN General Assembly in 1948.

Corruption levels within a country leads to diversion of public funds and leaves governments with fewer resources to fulfil human rights obligations. For example, funds are needed to run elections and ensure rule of law is maintained. Corruption can also lead to pollution and violate the right to clean air, putting people and the planet second to individual profiteering which does not align with our business purpose and ethics and sustainability strategy. With this in mind, corruption levels present a strategic risk to the business. Therefore, the Perception Corruption Index as compiled by Transparency International is used for comparisons of political risk across both Peru and Columbia for further comparative analysis in this issue area.

Assumptions: The following analysis is based on the assumption that democratic regimes are most likely to see long term stability required for good growth and a healthy business environment while aligning with our sustainability and ethics dtrategy.

Democratic governments are structured to allow peaceful power change with minimum disruption. Different leadership brings new skills and fresh direction. Freedom of speech serves to highlight future issues and potential future risks. The freedom of a democratic regime enables increased ideas, innovation and consequent economic growth. Furthermore, democratic regimes are more likely to spend public funds on key infrastructure and services such as education, transport links and social protections. This generates a skilled and resilient workforce which in turn mitigates risk of civil unrest, and thus creates an environment of stability. Innovation, ideas, a skilled workforce and stability are all crucial for the success of our business.

Analysis: In the Regional Political Risk Index seen below Columbia is ranked 71 and Peru 78. While Peru has maintained a constant score of 78 Columbia has seen a fall from a rank of 78 to 71 during the time period 2015-2019. Both countries remain above the region average for the period of 2015-2019. While one country, Peru demonstrates a stagnation in progress in this period. Columbia demonstrates a regression.

South America Avg.	*67*	*68*	*68*	*68*	*70*
Chile	80	83	83	82	84
Uruguay	79	79	77	77	81
Peru	78	78	78	78	78
Paraguay	72	74	72	73	74
Colombia	71	73	74	73	78
Suriname	71	71	68	68	73
Guyana	68	66	67	65	66
Brazil	66	68	67	68	70
Argentina	62	66	70	67	62
Bolivia	61	63	67	67	69
Ecuador	59	59	57	57	55
Venezuela	39	39	39	41	45

Political Rights and Civil Liberties: In the Freedom House Index both Peru and Columbia are listed as partly free. As can be seen in table 4, both countries have regressed at the same rate in terms of total score from the previous years, with overall Peru gaining a higher score in both years. The overall grading in the index may be similar in trend but the issues facing both countries differ. For Peru, there has been a stagnation and hampering of anti-corruption efforts, primarily due to clashes between congress and the presidency. The country has seen numerous leadership changes in a short space of time, however, transition of power has remained peaceful and the development strategy has remained constant during such changes, contributing to a continued stable business environment. There remains an issue with businesses regularly seeking to bribe political candidates.

For Columbia the issue remains the consolidation of peace, civil liberties and political rights outside of the main urban areas. While a peace accord has been signed between the government and left-wing group the Common Alternative Revolutionat Force (FARC), guerrilla groups and criminal gangs still intimidate some citizens in free participation in elections. It is also worth noting that there is still a presence of armed groups on university campuses who are there to generate political support. This intimidation has not stopped students expressing grievances to the government and protesting.

Table 4: Freedom House Index, Electoral Process, Political Pluralism and Participation, Functioning of Government, Freedom of Expression and Belief

Indicator	Peru	Columbia
Total Index Score 2021	71/100	65/100
Total Index Score 2020	72/100	66/100
Is there academic freedom, and is the educational system free from extensive political indoctrination?	4/4	3/4
Was the current head of government or other chief national authority elected through free and fair elections?	3/4	4/4
Are the people's political choices free from domination by forces that are external to the political sphere, or by political forces that employ extrapolitical means?	3/4	2/4
Were the current national legislative representatives elected through free and fair elections?	4/4	3/4
Are safeguards against official corruption strong and effective?	2/4	2/4

Focus on Corruption: Legislatively, Columbia is more able than Peru to push through corruption reforms and investigations into corruption generally end up in prosecution. Prosecution rates include senior officials. However, incidences of cross-country corruption have been highlighted, most notably the bribery scandal involving Brazilian firm Odebrecht in 2018.

Transparency International highlights that the concentration of power in Columbia has led to an increase in corruption surrounding COVID19 procurement and contracting which is a worrying trend.[43] The government Columbia remains transparent with information accessible. As with Peru, gathering security and military information remains difficult.

In Peru, corruption is systemic and attempts to combat this have been hampered by battles between the Presidency and Congress. 68 of 130 elected lawmakers in 2020 were subject to open criminal cases.

[43] Transparency International – Alarm Over Concentration of Power in the Presidency in Columbia. Available at: https://www.transparency.org/en/press/alarm-over-concentration-of-power-in-the-presidency-in-colombia.

The Vizcarra administration has embarked on digitisation of public information which has increased transparency and thus checks and balances. However, the continued political turmoil hampers anti corruption efforts. Transparency International note this stagnation for Peru in addressing corruption in their Corruption Perception Index and state that the ongoing corruption is systemic and institutional, which indicates a long timeline in terms of resolution in this area.[44]

When considering corruption, it is also important to review the rule of law. In Peru, the judiciary is considered to be one of the most corrupt institutions, as noted by Freedom House. However, protests from civil society have resulted in change and the creation of the National Board of Justice to address this. This shows that there is opportunity for change and progress. The courts were involved in the removal of elected President Vizcarra, however this removal was short lived. In Columbia there have been similar corruption scandals involving the Supreme Court and Constitutional Court. In Columbia, the trial process is very professional, yet extremely slow.

While corruption remains the main risk in terms of our investment for Peru, we can see from table 5 that both countries score a relatively similar amount in the Corruption Perception Index with Columbia showing a positive forward focus in addressing issues that may well be put backwards due to the pandemic.

Table 5: Corruption Perception Index, Transparency International

Country	Score	Rank	Score Change Since 2012
Peru	38/100	94/180	0
Columbia	39/100	92/180	+3

Our Strategic Partners: We work closely with NGOs and relevant national trade unions who support us in the delivery of our ethics and sustainability strategy. In Peru there has been discouragement of environmental activism, however in general NGOs are able to operate freely without fear. Peru only

[44] Transparency International – CPI 2020: The Americas. Available at: https://www.transparency.org/en/news/cpi-2020-americas.

has 10% of the workforce unionised and while workforce organising is legal the process to do so takes time. This time-lag results in an opportunity to dismiss those members of staff looking unionise from their jobs. Furthermore, the high prevalence for short-term contracts further hinders unionisation efforts. Both issues hindering unionisation efforts can be overcome internally at EnBW due to the existing legal framework within Peru.

In Columbia despite the existing legal framework which protects NGOs and union activists the UN registered 120 killings of human rights defenders and social leaders as of mid-December 2020. This centres around the targeting of those working in land rights, victims' rights and ethnic and indigenous advocates. It is noted by Freedom House that during the pandemic violence from organised crime groups flared up with NGOs reporting massacres. This trend is a concern in terms of the safety of our strategic partners.

We can see in table 6 below that Peru scores slightly higher in the key areas of associated and organisational rights that have been the focus of our analysis.

Table 6: Freedom House Index, Associated and Organisational Rights

Indicator	Peru	Columbia
Freedom for trade unions and similar professional or labour organizations	2/4	2/4
Freedom for NGOs engaged in human rights and governance-related work	3/4	2/4

Protection of Property Rights and Freedom of Movement: As part of our investment there will be building of infrastructure and purchase of premises. It is therefore critical to assess ownership of property and the right to establish a business. In both Peru and Columbia ownership of property and the right to establish a business is respected. In Peru the Prior Consultation Law has been developed to protect indigenous people from loss of land, which will further act as a protection against risk and reputation for our business.

It is important to highlight however, that in Columbia travel is restricted in some areas due to violence and there are illegal checkpoints in existence. Violence and organised crime do continue to affect property rights and ability to establish a business and this significantly affects the score for Columbia in this important area, as seen in the table below. Our business will require employees to travel outside of urban areas and this therefore makes Columbia a higher risk in this focus area for our specific operational aspects and requirements. Both countries suffer from issues of economic exploitation which would require constant monitoring.

Table 7: Freedom House Index, Personal Autonomy and Individual Rights

Indicator	**Peru**	**Columbia**
Do individuals enjoy freedom of movement, including the ability to change their place of residence, employment, or education?	4/4	2/4
Are individuals able to exercise the right to own property and establish private businesses without undue interference from state or nonstate actors?	3/4	2/4
Do individuals enjoy equality of opportunity and freedom from economic exploitation?	2/4	2/4

VI. Conclusion

The comparative risk assessment analysis conducted on Colombia and Peru, taking into account social, economic, environmental, political, and cultural indicators, has shown that Peru constitutes the better investment destination.

Table 8: Concluding Analysis

	Social Risk	Economic Risk	Environmental Risk	Political and Cultural Risk
Better scoring country	Peru	Peru	Peru/Colombia	Peru

Starting off from social risk, Peru is the better scoring country. Even though both countries show similarities, Peru overtrumps Colombia in the majority of social and welfare indicators, such as the unemployment rate, GNI per capita, the Gini Index and education. Concerning the economic risk factors a similar picture emerges. Despite the fact that Colombia's GDP as well as its labour productivity are exceeding the ones of Peru, the analysis clearly demonstrated that the Peruvian economy is more stable and promising. Peru outperforms Colombia, amongst others, concerning the level of inflation, the stability of its exchange rate to the € and its openness to trade. Peru's tremendous GDP growth as well as its steady increase in labour productivity make us believe that a long-term investment in Peru will be the most successful. Several rankings, such as the one of Standard & Poor’s agree with our conclusion by assigning Peru a better ranking and a positive outlook.

Peru and Colombia are almost perfectly aligned in environmental risk indicators and also face similar challenges in this field mainly concerning infrastructure and energy sector regulation in favour of sustainable energy production. According to the SACE group, both countries have a score of 16/100 in terms of climate change risk. The electricity generation potential of Peru and Colombia is 22 and 21 GW respectively, however in comparison Peru for now has a higher installed capacity between the two. For the company it may be important to consider that Colombia has both onshore and offshore wind energy potential, while Peru’s potential is concentrated mainly onshore. Both countries have committed to increasing efforts in ESG risk management, which is certainly a positive indicator.

When considering political and cultural risk it is clear that Peru is suffering from stagnation in addressing ongoing systemic corruption issues. This is a cause for concern. The digitisation of government information is positive in demonstrating a move to a more transparent system with ability to tackle such ingrained issues. We conclude that this is a promising development in the fight against corruption in Peru. Columbia, while making better progress in the area of corruption, remains plagued by organised crime and violence outside the main urban areas. This poses a significant risk to both our employees, our strategic partners and our business in terms of property rights. Therefore, despite the relative similarities around political and cultural risk scores, for EnBW, Peru poses much less risk in terms of our investment.

For the aforementioned reasons, Peru is the country with lower risk for the EnBW’s expansion onto the South American market. Following this recommendation, we are convinced that the EnBW will engage in safe and successful investments.