AXIOM
ALTERNATIVE INVESTMENTS

Axiom's ESG Policy

I. Introduction

Academic researchers and investors have investigated the link between firm performance and environmental, social, and governance (ESG) criteria since the beginning of 1970s. Benefitting from 45 years of research, Friede, Busch and Bassen (2015) have extracted primary and secondary data from 2200 empirical studies to reach the following conclusion: "*the business case for ESG investing is empirically very well founded*" and "*the large majority of studies reports positive findings*" which "*appear stable over time*".

It is now clear that ESG investing, or sustainable investing as it is sometimes called, is not only about doing what is right for the environment and the communities we live in; it is also about doing what is right for your portfolio.

But what do we mean when we say "ESG"?

There are unfortunately as many definitions as there are people talking about ESG. In 2019, the European Commission published an eagerly anticipated taxonomy on "Sustainable finance", but with a sole focus on the "E" of ESG. Indeed, the six principles it enshrines are climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, waste prevention and recycling, pollution prevention and control and protection of healthy ecosystems. Which means we are left none the wiser as to the "S" and the "G".

Good governance has also been an ongoing focus of EU policymakers over the past fifteen years. This culminated with the adoption of the Shareholder Rights Directive II, but many rules or guidelines remain under the purview of member states, which sometimes have very different approaches. The policies have mostly tried to address four main areas, corporate transparency, shareholder rights, board effectiveness and shareholder engagement, but the EU has always been keen to consciously avoid an EU-wide strict governance code. For us, investors, this simply means that following the law is necessary, but not enough. Items such as accountability of directors, related-party transactions, differential ownership rights, remuneration or company disclosures are not sufficiently addressed, in our view.

Although incomplete, these policy initiatives are pillars on which we can build an analytical process on best governance and environmental impact. The "S" is less clear. The variety of social factors that can impact a company's performance is almost limitless. Is it about dealing with its customers? About its contribution to the political landscape? Its impact on public health and the general public's safety? Or only its charitable contributions?

To navigate such complexity, Axiom Alternative Investments has chosen to focus on what it knows best: financial institutions. This means that our ESG analysis cannot be a generic one. We need tailor-made solutions that do not only focus on general ESG criteria. We need approaches that adapt an ESG strategy to the unique characteristics of the financial world.

This is the approach we detail below.

II. E for Environmental impact

A. Financial institutions and the low carbon economy

The financial sector is facing a paradox: its direct environmental footprint is very low, but, at the same time, it will play a huge role in the transition to a low carbon economy. This is because the financial sector drives the global allocation of capital: it can “choose” to allocate capital to riskier, carbon intensive businesses, or to allocate capital to projects seeking to contribute positively to climate change. Unfortunately, from a purely financial point of view, both approaches can make sense: in the medium to long term, which is what most investors care about, even higher climate risks have a fair price.

Therefore, we believe that it is not enough to assess the climate risks financial institutions are facing. Investors need also to make an impact, i.e. to favour investments that contribute to the COP 21 targets. We use a 3-pillar approach.

✓ Corporate commitment	✓ Exposure and risk management	✓ Low carbon contribution
Governance	Sectorial Policies	“Green share”
TCFD Strategy	TCFD Risk management	2 C target
Transparency	Asset risk	

To be efficient, each building block of the analysis needs to be supported by accurate data. Financial institutions are heavily supervised, and we believe it is possible to get the necessary information from various sources that we detail below.

Metric Type	Name	Data Source (examples)
Corporate commitment	Governance	G analysis, controversy database, supervisory commitments and review
	Transparency	**NGO reports (Oxfam, Banktrack, etc.)**
	TCFD Strategy	**TCFD reports**
Exposure and risk management	Sectorial policies	**Annual reports**
	TCFD Risk management	**TCFD reports**
	Asset risk	**Loan database, Transparency reports, Pillar 3 reports**
Low carbon contribution	Green share	**Loan database, Transparency reports, Pillar 3 reports, NGO reports**
	2° Target	**Loan database, Transparency reports, Pillar 3 reports**

To address the Environmental risks and impacts for financial institutions, Axiom has chosen to partner with I Care & Consult. Founded ten years ago, I Care & Consult is a leading independent entrepreneurial consulting and innovation company dedicated to the environmental transition. Operating in both developed and emerging countries, I Care & Consult provides support to companies, investors and public stakeholders in analysing environmental performance and defining transition strategies. Axiom selected I Care & Consult based on how it stands out with its expertise in environmental and financial engineering, its bottom-up research tools for different assets classes, its recent partnerships and advisory roles to main ESG players in the sector and its ability to innovate in terms of financial and extra-financial indicators.

The goal of this partnership is to develop tools to qualify the green share in banks' activities and to assess their low carbon alignment in order to introduce a consolidated temperature measure at each portfolio's level. The main difficulty lies in identifying the sectorial break down of all financing activities for a given financial institution and to map this breakdown into concrete, ready to use, environmental metric.

B. Measuring climate risk

We will be scoring the physical risk and calculating a temperature of financial institutions mostly based on its so-called "secondary risk", i.e. the risk that comes from their investments and lending books, mostly based on its sector and geographical footprints. The lower the temperature, the greener the issuer.

The temperature of a financial institution will be based on the temperatures of its exposures, themselves mostly dependent on their sales and businesses. To give a straightforward example, the percentage of renewable energy versus fossil energy used or generated could lower the temperature of an issuer.

We will be using the 3-pillar approach presented below. Our analysis will be based on multiple indicators, combining external, internal and proprietary data from our advisor I Care & Consult.

✓ Climate performance analysis	✓ Assessment of the issuer contribution to the Energy Transition	✓ Risk analysis and climate stress testing
Carbon intensity	Green Share - assessment in line with the EU Taxonomy recommendations	Transition Risk scoring
Alignment with the 2C objective	NEC – Net Environmental Contribution	Physical Risk Scoring

* Energy and Environmental Transition

Special 2C metrics for sectors which ate direct emitters	Oil&Gas ; Electricity ; Passengers transport
Smart metrics applicable to key TEE* sectors	Special 2C sectors + Mining ; Chemicals: Food & Beverage ; Cosmetics & Textile
Standard metrics for all sectors	Apply to all sectors

The temperature shows the warming trajectory of a given portfolio and relates it to important targeted temperatures in global climate change negotiations. The Warming trajectory considers the weighted warming trajectory of all the portfolio positions. Current and future carbon intensity plays a central role in this calculation.

C. What does "2C temperature alignment" mean?

The Paris agreement in 2015 saw 195 of the world's governments commit to prevent dangerous climate change by limiting global warming to well below 2° Celsius. This signaled an acceleration in the transition to a low carbon economy.

To give you few concrete examples if we look at how aligned are the Top 1,200 companies with the 2°C world target we see that the alignment is still way off from achieving the 2°C or 1.5°C goals. The top 1,200 companies portfolio, tracking the MSCI World Index, is currently aligned with a temperature of 3.2°C, roughly in line with the country specific policy pledges of the Paris Agreement, known as the Nationally Determined Contributions (NDCs). An agriculture only Portfolio using the temperature measures of carbon delta would be (5.6°C), Mining, Petroleum & Refining (5.3°C), Utilities (5.2°C) and Transportation (5.1°C) sectors all have rather alarming levels of warming potential.

There are two types of alignment that could be considered:

- A static 2C alignment - Comparison of the company's current position compared to the 2 C position expected from the sector.

- A dynamic 2C alignment - Comparison of GHG (Green House Gases) emissions reduction of the company based on its objectives and the 2 C objectives of the sector

The 2C alignment concept has been brought to companies by two initiatives which both have a temperature measurement methodology:

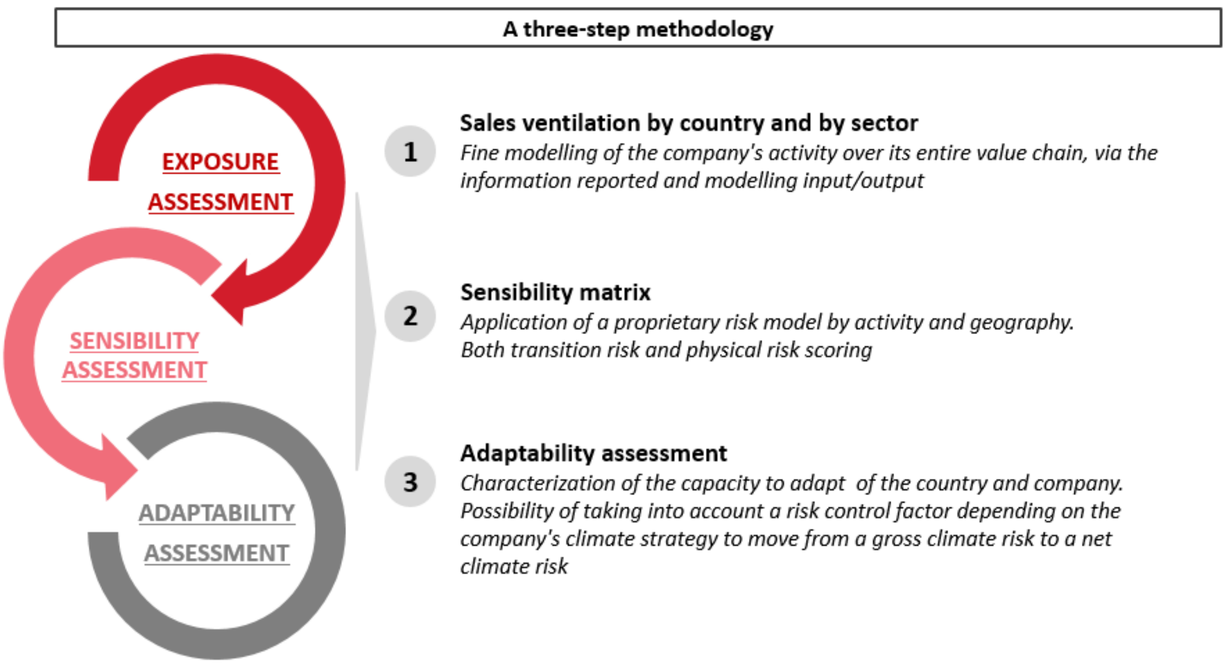
- The Science-based targets (SBT) approach which provides companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions. SBT uses the Science Based 2C Alignment (SB2A) to access a given portfolio temperature.

- The Accessing Low Carbon transition (ACT) approach, a joint venture initiative of the UNFCCC (United Nations Framework Convention on Climate Change) which developed a methodology that will recognize companies, sector by sector, that have set ambitious climate commitments and are taking steps to ensure the transition to a low-carbon economy. ACT uses the Carbon Impact Analytics (CIA) methodology to access a given portfolio temperature.

In our partnership with I Care & Consult we will focus on the SB2A methodology, which has the advantage of combining historical and forward-looking perspectives.

D. Methodology

The measurement of the risk will consist into a combination of exposure, sensibility and adaptability assessments by types of business, depending on the sales generation, the geography and the sustainable objectives of the business. Both transitional and physical risks will be taken into account.

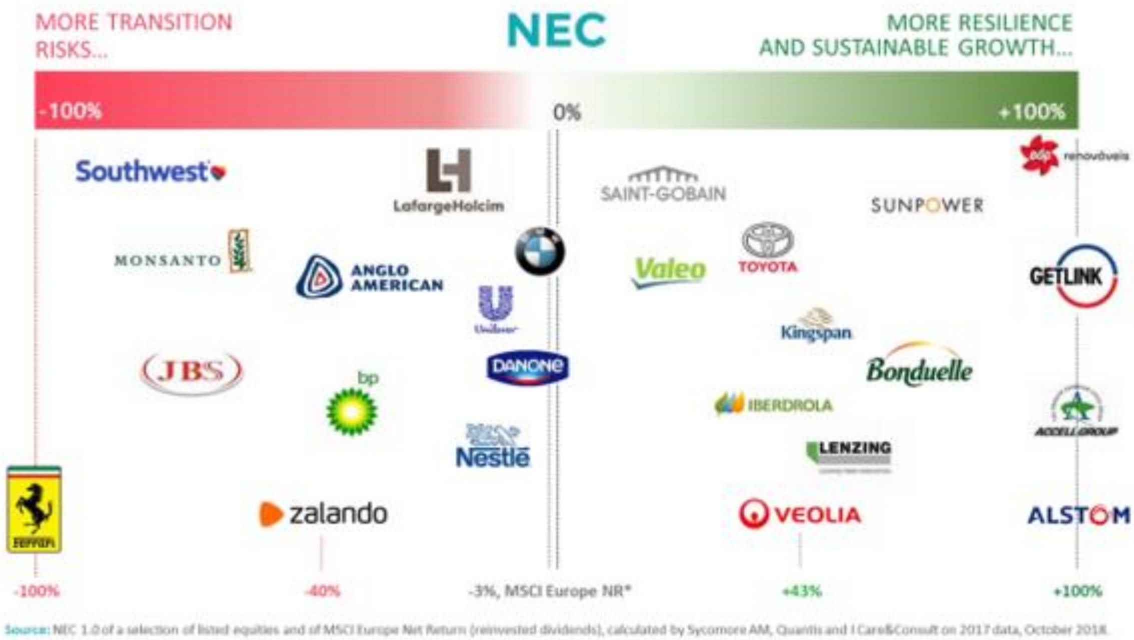


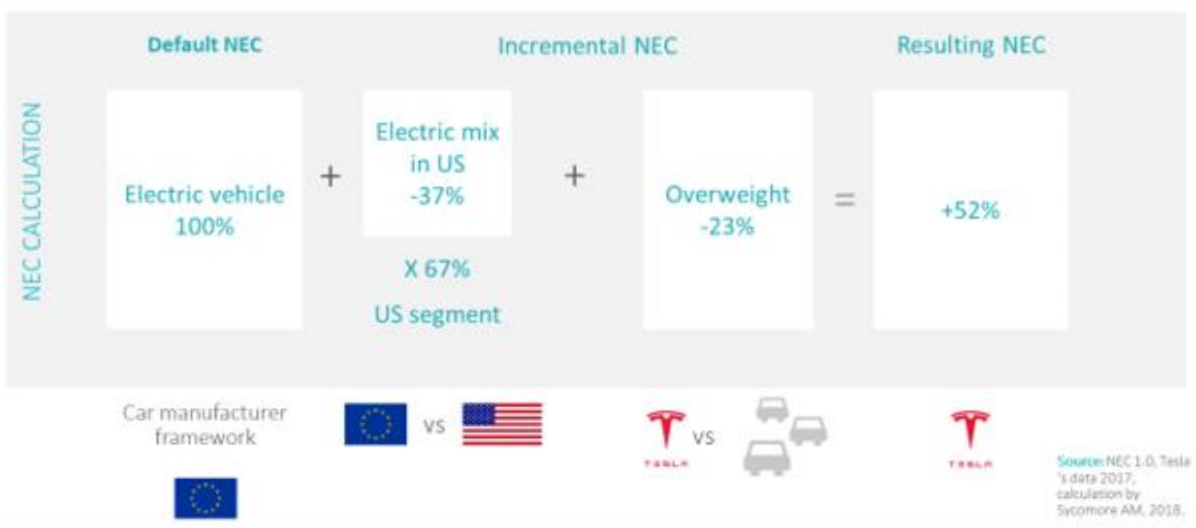
One tool that we will use is the Net Environmental Contribution Initiative, “NEC”, a cross sector and granular approach.

The NEC is the result of 3.5 years of R&D conducted with environmental sustainability consultancies. The NEC metric supports efforts to achieve and demonstrate compliance with soft laws (e.g. TCFD recommendation on transition risk or PRI reporting scheme) and hard laws (e.g. fiduciary duty, article 173 of French Energy Transition for Green Growth Law, and future elements of the 2018 EU Action Plan for Sustainable Finance, *etc*.)

The NEC measures the extent to which businesses are aligned with the environmental and energy transition and with global warming targets. The outcome is a single figure ranging from -100% to +100% that can be applied to all industries and funding types.

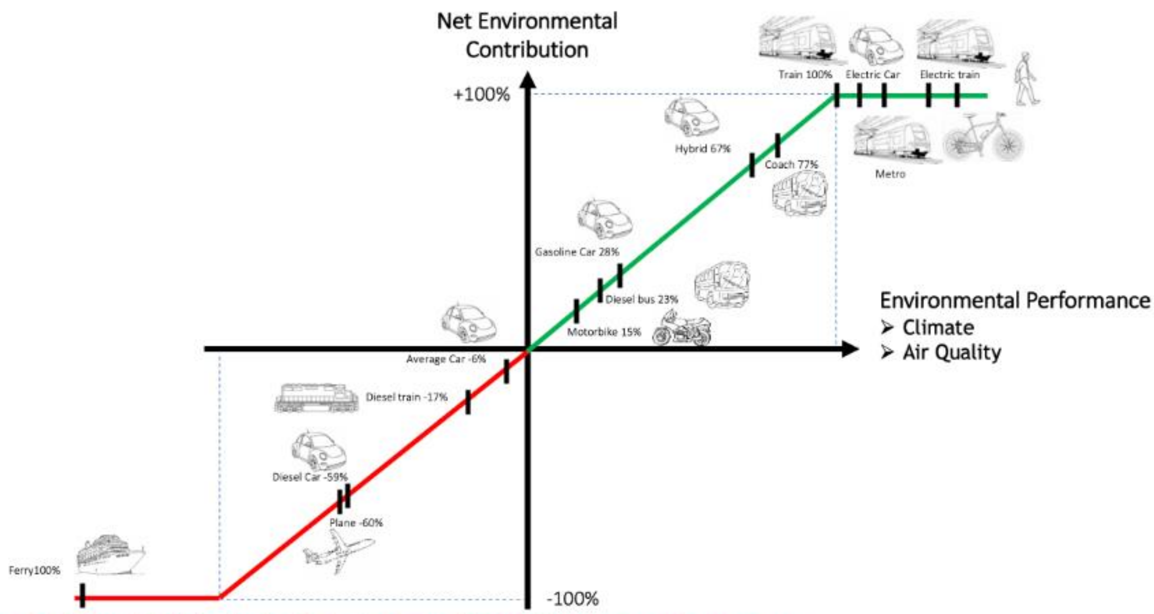
A positive NEC indicator means an activity’s overall impact is better than the existing measured average and is thereby helping to reduce the environmental footprint of a function and contributing towards an environmentally resilient economy.





The NEC metric also provides support for green certifications.

Below is an example of the Mobility Framework NEC scoring:



Sources: I Care & Consult calculations based on IEA, Eur. Env. Agency, IUC, ICCT, ADEME, transportenvironment.org, etc.

The NEC is an indicator allowing to set specific, measurable and time-based environmental objectives at portfolio as well as at a group of assets level.

E. How do we use the green share assessment and the recommendations of the EU Taskforce on climate change?

The latest Taxonomy Report released in March 2020 gives the definition of what constitutes a sustainable economic activity according to the European union and the High-Level Experts Group working on sustainable finance. To be sustainable, an activity should make a substantial contribution to one of the six environmental objectives of the European Union

- climate change mitigation,
- adaptation to climate change,
- the protection of water and marine resources,
- the transition to a circular economy,
- pollution control and prevention,
- the protection and restoration of biodiversity and ecosystems.

The TEG (Technical Experts group) has also put in place a list of technical selection criteria to determine when an activity makes a significant contribution to the objectives. There are sustainability thresholds for 70 economic sectors that have been released.

The taxonomy is expected to enter into force in the European Union in 2021, once delegated acts have been agreed upon and published on the first two objectives, i.e. activities contributing to climate change adaptation and mitigation.

We and our advisor I Care & Consult are and will be closely monitoring all developments of the taxonomy.

F. Integrating indirect risks to create a portfolio / financial institution temperature

To assess the "temperature" and climate risk of each financial institution, we will estimate the corresponding risk of the companies which are in the investment and lending book of the institution. This is much easier to do with the lending book than with the investment book (bonds, mostly) for which data is extremely poor. This work will be done by using a variety of sources:

- Pillar III reports, which disclose the sectorial break-down of loan books,
- EU Wide Transparency data which provide geographical data,
- Bloomberg data,
- Dealogic data on syndicated loans,
- Companies' annual and sustainability reports,
- Companies' TCFD reports,
- Data provided by NGOs, such as Unfriend Coal or Banktrack.

As environmental awareness improves over time, we believe the quality of the disclosures will also improve.

III. S for Social conduct

A. What is the "S" for a financial institution?

The chart below shows the Key Issues identified by MSCI when it comes to the rating of Social risk. We use it to illustrate how the world of financial institutions needs to be looked at from a very specific angle; some issues are clearly irrelevant, whereas others can pose threats that can even jeopardise a firm's viability.

Item	Comment
Labour management	Financial institutions offer well-paid jobs and attract talents, but sometimes at the expense of company culture, something we believe is related to governance.
Human capital development	Financial institutions offer well-paid jobs and attract talents, but sometimes at the expense of company culture, something we believe is related to governance.
Health and safety	Financial jobs have generally a very low health risk, although, in period of downturns, mental health risk can rise.
Supply chain labour standards	This is mostly irrelevant, except possibly for IT suppliers.
Product safety and quality	This is irrelevant – except indirectly via the investments the financial institution makes.
Chemical Safety	This is irrelevant – except indirectly via the investments the financial institution makes
Financial Product Safety	In our view, this is the most important social issue for financial institutions. Misselling of financial products sometimes lead to extremely high fines and may endanger the viability.
Privacy and data security	Banks own a very large amount of highly sensitive financial data. Privacy and data security are a key concern with wide ranging implications.
Responsible investments	By definition, financial institutions have very large investment portfolios and bear indirect ESG risks via those investments. Monitoring their ESG policies and risk appetite is important.
Health and Demographic Risk	This risk is negligible, except when actively managed via financial products, such as life insurance policies.
Controversies and stakeholder opposition	Everyone hates banks. This is a key concern for banks, but also one that is very hard to assess, as the “noise” of a controversy is not always correlated with financial risk.
Access to Communications	This is irrelevant
Access to Finance	This is irrelevant
Access to Health Care	This is irrelevant
Opp’s in Nutrition & Health	This is irrelevant

Source: MSCI, Axiom AI

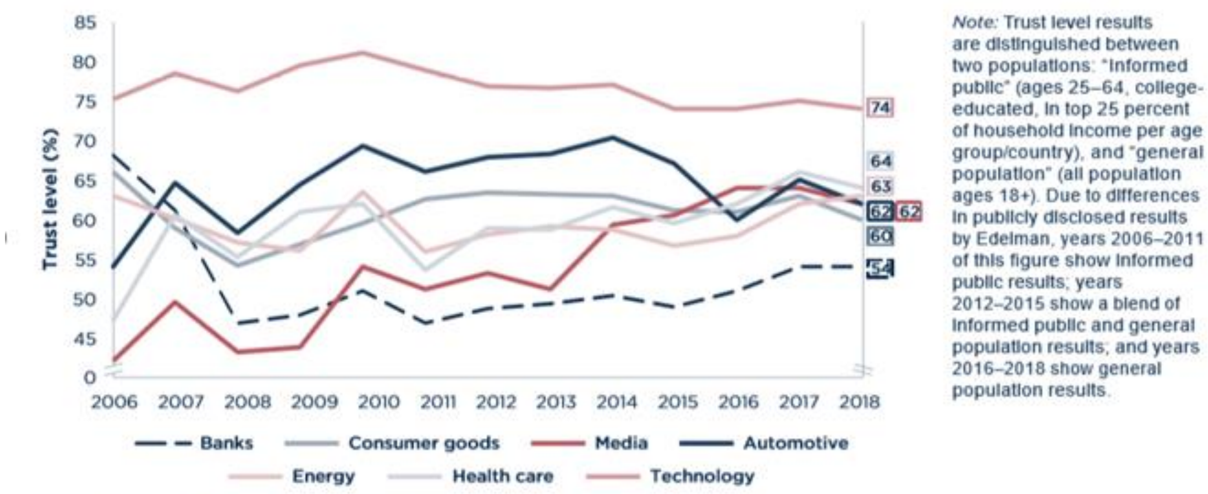
This points towards the following conclusion: for financial institutions, the direct social risks are much narrower than for other sectors. They are clearly connected to a few high-impact topics:

- Company culture and how it can lead to abnormal level of risk taking.
- Compliance with an increasingly large set of complex regulations, especially, but not only, in the field of anti-money laundering.
- Consumer protection and the adequacy of the products designed and sold by the financial institution.

B. Company culture

Ten years after the great financial crisis, financial institutions remain unloved. More often than not, "banker" is associated with poor ethics, inappropriate behaviour or short-term greed at the expense of long-term return. This is best illustrated in the Edelman Trust Barometer results by industry sector for the years 2006-2018.

<u>Edelman Trust Barometer results by industry sector for the years 2006-2018</u>

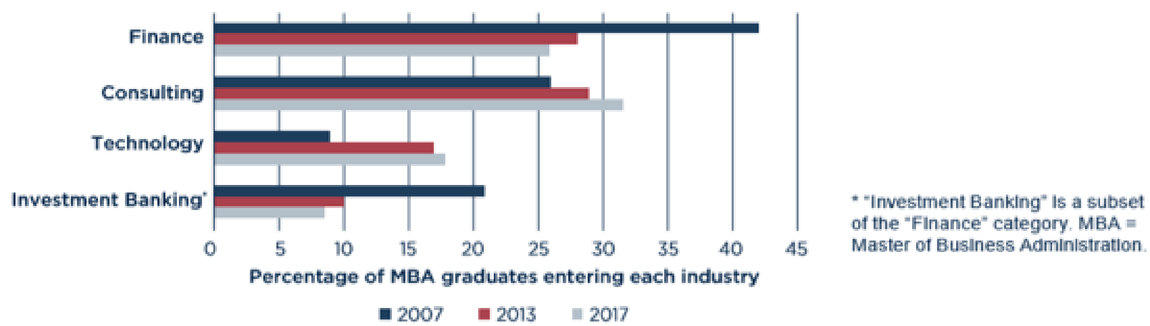


Source: Edelman Trust Barometer Archive.

This is not simply a theoretical or a perception problem. Bad culture is incredibly expensive. Over the past ten years, it is estimated that <u>banks have paid between US$350 billion and US$470 billion in fines, settlement, litigations, etc., directly linked to general misconduct</u>. On our sample of only 31 large banks alone, for the period 2004-2018, we identify a combined cost of 338bn$. But recent cases have shown that this is not limited to large banks or to banks from a specific jurisdiction. Only last year, several small banks failed because of money laundering allegations. <u>Culture is not only essential to social sustainability; it is a key driver of viability</u>.

The cost can also be measured in terms of human capital: financial institutions are now far less competitive at attracting talents, as illustrated below.

Finance, not the employer of choice anymore



Sources: 2007 and 2013 data: "Business education: Banks? No, thanks!," *The Economist*, October 11, 2014. 2017 data: average employment data from Chicago Booth, Wharton, Harvard, London, and INSEAD.

Clients are also more focused on bank conduct and culture. Highly publicized cases on money laundering, tax fraud or other, have put pressure on bank managements to show they understand and manage culture risk.

It is fair to say that supervisors, regulators, and governments have dramatically increased scrutiny of culture at financial institutions.

However, an information problem remains. We do not have the quality of information that supervisors or bank managers have. Financial institutions' annual reports are filled with plain descriptions of "*company culture*". They all strive to focus on "*client satisfaction*", "*responsibility*" or "*compliance culture*". How can this be genuinely useful to us? How can we assess the effectiveness of the changes that managers are trying to implement in the firm and the extent of the remaining culture risk?

Our firm belief is that a financial institution's culture can only change very slowly. There are important items to check, in terms of the way the company is managed, but this is best addressed when looking at the governance of the company. Ultimately, the best indicator of a company's culture, is simply the short-term past: what has happened over the past few years and what does it tell us about the firm. What does it tell us about the top management, about the risk policies, about the expertise and training of the staff, about the quality of the control over offshore subsidiaries, *etc*. Because if something "*is rotten in the kingdom of Denmark*", it is unlikely to improve overnight, and even short-term changes could leave undisclosed skeletons in the closet. Even when a dramatic event, such as large money laundering allegations, lead to a management overhaul, we do not think changing culture can be a one-off event. It is always a continuous and ongoing effort that needs to be integrated in the day-to-day business.

This is why our main tool to assess the risk linked to company culture is our "Controversy Database" detailed below.

C. Compliance analysis

For financial institutions, a key component of Social risk, or conduct risk, is compliance risk. This is the risk that a company does not respect its legal obligations, and this leads to direct or indirect financial loss. It includes such high-profile cases as tax fraud (for clients or for the company itself), money laundering, sanctions breach, etc.

Our approach to this risk involves three steps:

- We identify the main sources of risk, based on previous cases, ongoing investigations or prospective analysis,
- We analyse the legal environment, what it means in terms of financial risk, and the internal policies of the relevant institutions,
- Based on previous cases, on exposures, on financial publications, *etc*., we try to assess the risk that each institution is facing. No complacency is possible: we are aware that this can range from very benign cases to outright bankruptcy.

All these elements are compiled in an internal database. Examples of important compliance matters that are in this database include:

- Correspondent banking AML risk.
- General AML risk.
- Swiss-US tax fraud.
- Dividend tax fraud.
- FX market manipulation.
- FHFA Fraud.
- DOJ RMBS litigation.
- OFAC sanctions breach.
- Libor manipulation.

AML provides an example of the information which is accessible to portfolio managers if they want to understand the AML risk they are taking when investing in a specific financial institution:

- Selected summaries of rules applicable in the main jurisdictions with sanctions guidelines.
- NGO databases with exhaustive data on sample cases such as the Laundromat or the Troika allegations with bank by bank exposure.
- Official (BIS, FATF, GFI, EC) ranking of jurisdictions on AML.
- Market share analysis in high risk jurisdictions.

- When available, markets statistics on payment flows in high risk jurisdictions.
- Bank by bank analysis of exposures in high risk jurisdictions.
- Detailed case study of a sample of past high-profile cases as well as historical sanction data.
- Ongoing cases.

Rather than using this data to calculate a "risk score" or a rating, which we believe is an artificial approach that does not adequately reflect the complexity embedded in such topics, we make all this information available to portfolio managers and the investment committee so that it can be used in investment decisions, in the same way financial information is used.

When a specific high-profile case with potentially severe financial consequences is revealed (such as Danske Bank in 2019) this is discussed extensively by the investment team.

D. Misselling

No matter how important compliance failures can be, it is our belief that the misselling of financial products (broadly defined) is the largest **S**ocial risk that financial institutions are facing. Misselling does not have a single source: indeed, it can result from an inappropriate culture (aggressive sales strategy, short term incentives for the staff), legal errors (misunderstanding of usury laws, for example) or even management integrity. In the UK, one single case, the inappropriate sale of payment protection insurance (or PPI, an insurance product to enable repayment of a credit if the borrower dies), led to a combined cost of more than 42bn£ for the banking sector!

It is more difficult to make an ex-ante assessment of this type of risk as it requires a very thorough analysis of the products (and the actual contract), of the case law, and of possible legal issues that have not yet been taken to court. Our approach relies on a two-step strategy:

- Careful monitoring of the news, to identify as quickly as possible new areas of risk.
- Legal and financial analysis of the exposure each bank is facing.

As for compliance risk, we do not try to estimate a risk score or a risk grade, but rather provide the portfolio managers and the investment committee with up to date information of all ongoing cases. We also keep historical data on past cases as they somehow provide information on the quality of each institution's internal processes and guide to future risk.

Examples of current major misselling risks in the EU include:

- Spanish credit card revolver loans.
- Spanish mortgage loans indexation clauses
- Polish FX mortgage loans.
- Greek ATM fees.
- Irish tracker mortgage loans.

An example of detailed analysis is the analysis of index clauses in Spanish mortgage floors, where the investment team will have access to:

- The background of the case (market size, description of the issue).
- The main legal facts (important court decisions, key legal questions that remain unsolved).
- The main sources of uncertainty to calculate the financial impact (claims rate, extent of retroactivity, etc.)
- Range of estimates for the possible financial loss, for a selected sample of institutions.

Bank	IRPH exposure (bn€), 4Q 2019	Low estimate	High estimate	Low estimate%	High estimate%	% mortgage book	20y retroactivity - IRPH 1999	1999-2019 impact	2/27/2020 New Exposure disclosure
Bank 1	6700	1400	2800	20.9%	41.8%	7.0%	14,839	2555	
Bank 2	4000	700	1500	17.5%	37.5%	7.0%	9,208	1585	
Bank 3	3100	700	1500	22.6%	48.4%	4.0%	6,446	1100	
Bank 4	1300	300	600	23.1%	46.2%	2.0%	3,683	634	2900
Bank 5	800	200	400	25.0%	50.0%	2.0%	1,729	298	

E. Axiom “Controversy” Database

On top of the major issues described above, financial institutions are facing a wide range of controversies, from unwanted political involvement (e.g. the controversy over President Trump’s tax returns held by Deutsche Bank) to allegations of accounting fraud, inappropriate related party transactions, bribery, predatory lending, coal financing, cyber risk, *etc*.

To benefit from a holistic view, both in terms of possible controversies and in terms of global picture for a given financial institution, Axiom has developed an in-house database which stores daily data on controversies. Each piece of news is linked to all the institutions (within our coverage) that could be affected, to a type of controversy and to a specific controversy, as many of them appear regularly in the news with updated information.

Each item in the database includes a record date, a factual description of the news, linked companies, a comment on the impact of the news, an (updated) estimate of the financial risk and a classification on the type of controversy. Portfolio managers can use filters on issuers, types of risks, a specific litigation, etc., to have an updated view on the situation or the past history of the case.

A recent example of such an item is given below:

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Date of report	Ticker Equity	Entity	Description of Issue	Issue Code	Direct Risk (Issuer currency, M)	Comment	Type of S
3/3/2020	BBVA SM	BBVA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	SAN SM	Banco Santander SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	CABK SM	CaixaBank SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	BKIA SM	Bankia SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	SAB SM	Banco de Sabadell SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	BKT SM	Bankinter SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	UNI SM	Unicaja Banco SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	LBK SM	Liberbank SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling

3/3/2020	0117897D SM	Kutxabank SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	8218328Z SM	Grupo Cooperativo Cajamar	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	1514557D SM	Abanca Holding Financiero SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling
3/3/2020	1091Z SM	Ibercaja Banco SA	IRPH Decision by the ECJ https://curia.europa.eu/jcms/jcms/Jo2_7052/en/.	Spanish_IRPH	See estimates	[Confidential]	Misseling

On top of the day to day use of the database, significant situations will be discussed on a case by case basis by the investment committee. This can include sector-wide controversies or litigations, such as a generalised misselling case, or an issuer-specific case where the risk is deemed to be material. This will not, by itself, trigger automatic sales in the portfolios or trading bans, but will lead to a reassessment of the risk in order to estimate if the market pricing adequately reflects the risks and offers an attractive risk reward profile.

In the most extreme cases, generally involving criminal activities, the committee can decide to cancel all investments on an issuer, effectively adding that issuer to the exclusion list.

IV. G for good Governance

For any company, governance is at the heart of long-term performance. It is very hard for a company to be more efficient, fairer and more honest than its leadership. However, for financial institutions, the governance problem is even more acute, for at least three reasons.

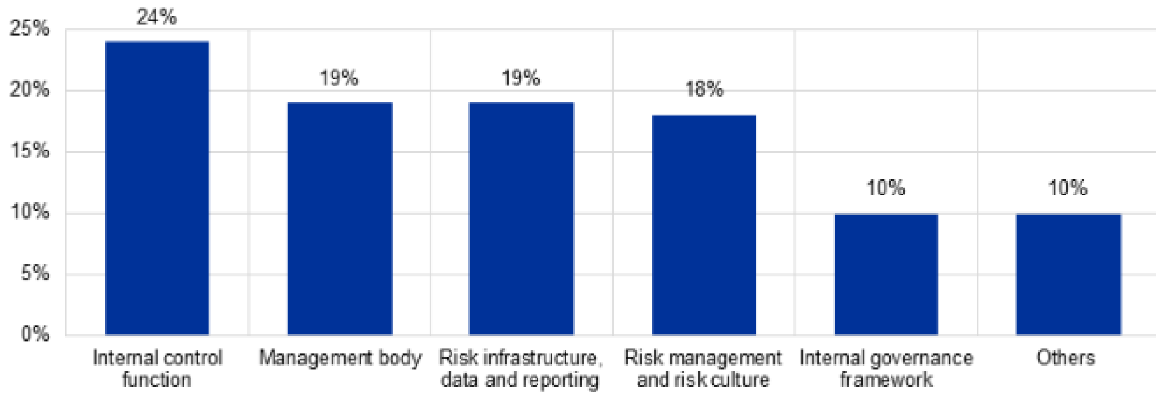
- The massive conduct charges, the gigantic credit losses and the general public distrust that financial institutions have been facing since the crisis cannot be adequately explained without a focus on governance. Financiers are often sophisticated economic agents who act under a set of external and internal constraints and maximise their (usually purely financial) payoff. One major role of an adequate governance system is to create adequate incentives within the organisation.

- Finance is a very complex world: transactions are large and complicated, their risks are hard to understand, to report and to monitor. Therefore, an adequate governance system in the financial industry must not only set the proper incentives, it must also address the thorny issue of getting sure that the board and executives are fully aware of what is going on.

- The supervisory requirements on governance go way beyond what is applied to non-regulated sectors. Not only does the Basel Committee or local supervisors publish detailed governance best practices for banks, but they are also an important component of the annual supervisory review process used to determine each bank’s capital requirement.

The complexity of this problem is best illustrated by the annual report on the SREP process published by the European Central Bank. The report states that “*Internal governance is the risk area which poses the greatest concern given the number of qualitative measures*” and “*30% of qualitative measures concern governance: the internal control function, the management bodies and risk infrastructure, data and reporting are the main focus areas*.” (“Qualitative measures” are remedial actions requested by the ECB when it identifies a failing.)

Breakdown of 2019 qualitative measures by internal governance area:



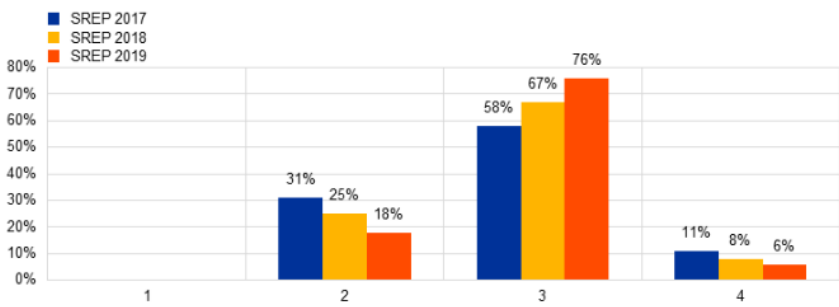
Source: ECB

Indeed, as the chart above demonstrates, corporate governance is not only about independent board members! The role of corporate governance at a financial institution covers a wide array of topics, all of which can have meaningful impacts on long-term performance, including:

- Setting the long-term strategy and objectives.
- Selecting and overseeing personnel.
- Managing day to day operations.
- Protecting the interests of many stakeholders such as shareholders, obligors, depositors and clients.
- Aligning corporate culture with integrity and compliance.
- Setting up adequate control functions.
- Defining the risk appetite of the institution.

Among those functions, those that concern the supervisors most are "*weak management board effectiveness*", "*weak risk management and control of outsourcing related risks*", "*poor data aggregation capabilities*" and "*weak anti-money laundering controls and procedures*". "*Proper incentives schemes*" are also a concern. Also worrying is the fact that banks do not really improve, as shown below (1 the best score, 4 the worst.)

Element 2: Internal governance SREP scores 2017, 2018 and 2019:



Therefore, Axiom AI believes governance considerations are key in the investment process. Our approach follows the traditional steps used by financial supervisors: the three lines of defence.

A. The board

The board is the goalkeeper, "*the last line of defence in the battle against flawed decision-making*" (Mr. Enria). When we look at the efficiency of a board, we consider the following considerations.

a) Organisation

The board is more than the sum of its members: the way it works and the tasks it deals with are also crucial. As much as possible we assess the following aspects, using regulatory filings:

- Group of 30 recommendation 1: Is there a specific committee dedicated to the culture of the institutions?
- Group of 30 recommendation 2: does the board have regular access to the businesses, via meetings with heads of business units and geographies or otherwise?
- BIS recommendation: does it actually oversee the implementation of governance principles at lower echelons and periodically review it?
- BIS recommendation: does it define the risk appetite of the firm and periodically review that it is adequate, considering market changes, and that it is appropriately implemented?
- BIS recommendation: does it define the internal capital requirement and the appropriate buffer above regulatory requirements, considering the firm's risk profile and monitor its adequate implementation?
- BIS recommendation: in addition to top management compensation, does it approve the compensation structure at the business level?
- BIS recommendation: Does it oversee the procedures for whistleblowing?

These tasks cannot be efficiently performed by all the members of the board. To allow a deeper focus in specific areas we believe it is important for the board to delegate its work to ad-hoc committees which should each have a very detailed charter setting out its mandate, scope and working procedures. The chairperson of those committees should be both independent and non-executives. Of particular importance, are the following committees.

- Audit committee. Although this is not a legal requirement in Europe, we believe all members should be independent or, at the very least, non-executive. We also believe there should be no related party transaction between members and the institution. We try to monitor whether members have audit and accounting experiences, whether it actually interacts with internal and external auditors and if it has a say in their appointment, whether it oversees accounting practices and whether it meets often. We also check how long the auditors have been appointed as we observe very different practices in Europe (Lloyds has had the same auditors for 153 years, Deutsche Bank for 66!)
- Risk committee. We believe all financial institutions in our coverage should have a risk committee at the board level, with an independent chair who is not the chair of another committee and with a majority of independent members. Obviously, members should have experience in risk management, a very technical field in finance. This committee should review the bank's risk policies frequently and oversee both capital and liquidity management as well as the usual "regulatory" risks (credit, market and operational.) The quality of the data received by the committee is also crucial (see below.)
- Compensation committee. We believe all financial institutions in our coverage should have a compensation committee at the board level. The committee should not only focus on the compensation of the senior management and should work closely with the risk committee to examine if the firm's compensation policy creates perverse incentives.
- Nomination committee. We believe a nomination committee should exist, specifically tasked with recommending appointments to the board and of senior management. This committee should focus on assessing the knowledge, experience, competence and, where relevant, independence, of appointees and should ensure that the board is not dominated by one individual or by a small group of connected individuals.
- Ethics committee. We believe an ethics committee should exist and should, in particular, deal with whistleblowing allegations. Members should be independent.

b) Membership

The financial industry is extremely complex. Board members must be up to their challenging tasks. We believe three main criteria should apply (which is generally implied by the banking lingo "*fit and proper assessment*").

- Firstly, members should have experience and knowledge. This cannot only be academic knowledge, it needs to be grounded in solid real-life experience in the industry, including, if possible, in periods of deep crisis. We try to check the CVs of the board members and have a view on their "quality".

- Members should be free from conflicts of interest. Personal transactions, other board memberships, significant investments, *etc*., should be monitored and assessed. The board should have rule in place to allow a member not to vote on a specific matter and to manage situations where conflicts of interest appear and are in breach of the board's own rules. We check regulatory filings with a particular focus on related party transactions.

- The diversity of board members is not a cosmetic requirement. It is about bringing diverse perspectives, experience and knowledge, not simply about meeting gender diversity requirements. We examine whether there is a bias in the gender split of independent / non independent board members as this could be the sign diversity has been introduced at the expense of effective influence.

c) **Data Quality**

As the famous computer scientist Wilf Hey once said, "*garbage in, garbage out*". The best board will never be able to operate effectively unless fed with adequate data - a task which can be extremely challenging when the firm is exposed to myriads of complex products, in many jurisdictions, with fast moving markets. During the 2007-2008 crisis, some banks were unable to manage their risks simply because they were unable to calculate and report the risks they were taking.

Based on regulatory filings and on management meetings, we try to assess whether the firm complies with good risk data practices such as the Basel Committee standard on risk reporting. We mostly focus on the following items:

- The standards of validation of reporting tools should be high, well documented, and independently validated.
- Any new business development (acquisition, new products, etc.) should include a detailed analysis of its impact on risk reporting.
- The shortcomings of the risk reporting process should be well known, understood and documented.
- A full data quality control process should be in place, both at the business line level and the risk level and should ensure that the taxonomy (including counterparty identification) is adequate.
- The bank should limit manual processes and desktop applications and the senior management should be well aware of their use and limitations.
- A global data dictionary is essential.
- All data aggregation processes should be documented, and manual involvement explained.
- The institution should be able to produce the risk aggregated reports very quickly to match the speed of modern markets. Some items are more critical in terms of speed:

aggregate credit exposure per borrower, counterparty credit exposure (e.g. on derivatives), trading exposures and liquidity indicators.

d) Incentives

Executive board members should have a compensation package that creates virtuous long-term incentives aligned to those of all stakeholders. Our experience of the current practices show that institutions can offer vastly different packages, exhibit a varying degree of transparency and often lack clarity on ex-ante goals.

When assessing the quality of the package we look for the following items:

- Transparency: how well is the package described and disclosed to investors.
- Types of ex-ante targets: we favor packages that:
    - Have explicit ex-ante targets.
    - Are not based on the share price.
    - Are not based on dividend payments
    - Are based on medium term, risk adjusted profitability (internal capital modeling is preferred over regulatory capital allocation).
    - Do not have low goalposts (some institutions have target returns below their current returns)
- Flexibility: we favor packages that allow for flexibility, for example not paying huge compensation because of reduced tax rates or reducing payout if management failings can be identified. Example include reducing payout if AML issues or fraud are identified, such as at Well Fargo or at Goldman Sachs after the 1MDB scandal. However, that flexibility should ne be an excuse to move the goal post in order to increase pay (e.g. reducing ROE targets for no legitimate reason, as we have seen in some cases.)
- Deferral: we look for packages that allow for a significant portion to be deferred or even clawed back.

B. The compliance function & internal audit

Financial institutions must ensure that rules and guidelines set up at the board and executive management levels are effectively implemented at each business line's level. This requires both an ex-ante control of operations, this is the compliance function, and an ex-post analysis of what has been done, which is usually the role of the audit function. However, this general model is implemented in very different ways among firms. There is not yet a standard model for this second-line oversight of conduct and culture risk and the setup varies depending on the size, complexity, jurisdiction, *etc*. Auditing conduct initiatives, frameworks and standards, *etc*., is particularly challenging, which means that compliance functions are sometimes too involved in their own audit.

When analysing the effectiveness of the governance of compliance and audit, we look for the following aspects, in regulatory filings or by interacting with the management:

- Does the institution provide sufficient safety to encourage employees to speak up and escalate issues? This is crucial because we believe the financial world is so complicated, that front office employees are often the only ones able to understand when a conduct rule has been breached.
- Are conduct breaches genuinely and credibly sanctioned?

- Is the oversight of conduct risk clear and well organised, with written procedures, governance and control mechanisms, and are those shared by human resources, risk and compliance in an efficient way?
- Are compliance functions independent and well-staffed and do they have an easy and direct access to the top management?
- Is compliance involved before any new product is approved and is compliance involved in the monitoring of existing products? This is especially challenging for jurisdictions which are far from the firm's headquarters.

When possible, we benchmark compliance costs, to identify possible outliers that cannot be simply explained (for example by geographical footprints).

We also monitor DPA (deferred prosecution agreement) in the US as these are usually linked to improvements in compliance or audit functions.

C. <u>The business lines</u>

It is widely recognized among supervisors that the first "line of defence" against misconduct and inappropriate governance is at the level of the business lines, *i.e*. the business heads, regional heads or even desk heads. Supervisors have consistently claimed that this is where a cultural shift is needed most. Business units should improve their behavioural standards and their risk culture. One major issue, which has been studied extensively, is the so-called "*trader-call*": traders may have a large bonus if their P&L is positive but do not face a negative bonus if their P&L is negative, for obvious legal reasons. This means that they have a positive volatility exposure ("*positive vega*") and are incentivised to take risks. This is why the post crisis reform packages include a strong focus on compensation rules.

Based on regulatory filings and discussions with the management, we try to assess the effectiveness of the compensation packages and how well they handle the "*positive vega*" bias. This is not easy, because compensation schemes are often complex, can be tweaked, and banks are reluctant to give too many details. We generally look at the following aspects:

- <u>Absolute amount of compensation</u> – we recognize the value of rewarding excellent work, but also believe trading P&L does not grow on trees and very large compensations necessarily create dangerous incentives. For example, we note that the banks that had the largest trading P&L before the crisis are often also the ones that subsequently paid the largest fines for misconduct or market manipulation.

- Stability of the rules. Rules that change often are often the sign that the management wants to pay some predetermined amount of money and will tweak the rules to get to that amount. For example, pay-out ratios should not increase when revenues are lower. On the contrary, research (see for example "CEO Incentives and Bank Risk over the Business Cycle", Ongena, Savaser and Şişli-Ciamarra, 2018) has shown that simply keeping the same level of risk taking incentives will lead to higher risk in a downturn, suggesting lower pay-out should be used in such situations.
- Quality of disclosure.
- Technical details of the compensation plans. We specifically focus on the share of deferred compensation, on the P&L hurdles if any, on the instrument used to pay (we believe shares are not always appropriate) and on the existence of bonus caps and floors, including claw back mechanisms. We favour plans that are consistent with the research produced by the Bank of England on bonus caps and floors.
- Direct link between sales targets and bonuses. Supervisors have strongly expressed the view that compensation should not be directly linked to sales targets, as this create strong incentives for short misselling. Unfortunately, this information is rarely available.

However, compensation is not the answer to all problems. It is also not the only way the first line of defence can be improved. It is often difficult to get information on other topics, as financial institutions tend to keep detailed organisations confidential. When available, we try to obtain information on the following:

- To what extent is the middle management involved in promoting sound culture, effective governance and appropriate risk taking that is consistent with the risk appetite guideline of the bank (some middle management tend to act as mere "mailboxes" from front-officers to senior management.)

- Very much like for the board and senior management, we look for diversity in the business lines. This is not about showing politically correct statistics, but about having a diversity of points of view within business lines and the organisation. Academic research (e.g. by the Bank of England) has shown, for example, that male and female front-officers do not have, on average, the same risk-taking behaviour when faced with the same risks and compensation incentives.

- To what extent is the middle management directly incentivized to promote sound governance and culture, not only through financial means, and how clear are the expectations communicated to them? Clarity of the definition and management of this risk is often lacking.

- Is conduct/governance risk included in the risk appetite statement and how is it managed, measured and controlled at the business line level?

V. *Exclusion policy*

On top of the ESG analysis described above, Axiom maintains an exclusion list. Investments in securities issued by firms on that exclusion list are prohibited. If a name is added to the exclusion list and the securities are already in the portfolios, the portfolio manager must divest the securities, in a way that is not harmful to holders (no fire sale).

The list is mainly based on the lists established by recognized key players, such as the Norwegian government pension fund. The list was introduced in order to formalize our desire not to invest in any company engaged in activities that do not correspond to our values and our requirements in terms of sustainable development. Companies can be excluded for example because they produce controversial weapons, such as the ones covered by the Ottawa and Oslo Conventions (anti-personnel mines, cluster munitions.)

Our exclusion list is revised on a regular basis by the investment committee, and at least annually.

The list does not apply to indices the composition of which cannot be controlled by the company (index or ETF investments). The list also does not apply to indirect investments: we will not exclude a financial institution because it lends to an excluded company.

VI. ESG in practice at Axiom

We believe ESG should be integrated for all asset classes. However, Axiom is a specialist in financial institutions. We currently invest a very substantial share of our assets under management in financial institutions and currently our ESG approach only applies to them. We will seek to expand our ESG research capacity in the future.

For financial institutions, we use three main mechanisms to integrate ESG criteria:

- Our in-house database and tools dedicated to ESG, as described above.
- Engagement with management or investor relations teams to get additional information.
- Information published in annual reports or other regulatory filings (such as TCFD or sustainability reports.)

Except in funds with a specific ESG strategy or ESG criteria, ESG is only an additional tool to seek the optimal risk reward profile. The investment team always uses a variety of economic, financial or regulatory indicators to make investment decisions We seek to integrate ESG insights as a new piece of information, helpful to improve long-term investor performance, both on new investments and on the existing portfolios.

The investment teams responsible for investment decisions are responsible for integrating ESG analysis in their decision-making process. To support their work, the research team has dedicated resources, including a full time ESG analyst we are currently in the process of hiring. Axiom has also signed a partnership with ESG specialist I Care to improve its analytical capabilities and refine our in-house methodology. The role of the research team is to advance ESG research, to support ESG integration efforts but also to ensure consistency across portfolios. The ESG data available may come from our in-house databases, but we also integrate ESG information from external sources, such as ratings that are available from Bloomberg or other providers.

Axiom's investment committee is ultimately responsible for that ESG integration progress across investment teams, under the supervision of the Axiom executive committee ("*Conseil de gérance*").