

# I nvesting as if People and Planet Mattered

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Dans le monde occidental développé, l'importance des valeurs non monétaires est fréquemment négligée, le succès et le prestige étant traditionnellement associés à la richesse.

La théorie de la finance quantitative est confrontée à un obstacle majeur : la simplification théorique de la croyance selon laquelle l'accumulation de richesses monétaires est toujours la meilleure option.

If we examine the lessons of the financial crisis, we can see that a system built on both trust and the rational value-maximizing paradigm is fostering conflicts. The current situation therefore provides us with a unique opportunity to study the role of ethics in the financial system and to make concrete suggestions as to how to implement improved business codes of conduct. This article touches on two key areas in this development: the general public's investments and the education of actors in financial markets.

## After the storm

In the developed Western world, the preservation of fundamental aspects of human well-being sometimes seems to rank as peculiarly low priority. The effects of non-monetary value are frequently disregarded: success and prestige are typically associated with wealth. Environmental concerns are often ignored in favour of GDP. And third world humanitarian catastrophes are likely to receive only the amount of attention from the global community equivalent to their influence on the global economy.

The overlooked rationale is the fact that the values we feed into our systems, be they financial, social or environmental, are inevitably going

to be reflected back at us with considerable accuracy. When we ignore the fragility of many of the ecological systems of our planet, the climate may change. When we neglect moral code and ethics in finance, the system may crash.

The financial crisis did not happen to us as individuals much as it was created by us, if not by our direct actions then by our acceptance of the underlying set of values.

## An emerging shift in social norms

A major obstacle in quantitative finance theory is the theoretical simplification of the belief that more monetary wealth is always better. This is the essence of the rational value-maximizing paradigm. Qualities such as fresh air and human well-being are 'soft' intangibles with no role in a quantitative financial model. At least that is the broad message that come across in almost 50 years' worth of modern finance literature. Unless of course, some economical association can be made, such as risk management, public relations or avoidance of health-care expenses. An encouraging empirical finding is the growing market share and awareness of Socially Respon-

Selon une découverte empirique encourageante, la part de marché des investissements socialement responsables et la prise de conscience de leurs enjeux sont en développement.

Pourtant, les petits investisseurs hésitent encore à participer à des projets d'investissements responsables. Cela semble étrange quand on sait que le grand public peut être à l'origine de l'émergence de valeurs morales, qu'il peut jouer un rôle majeur dans la protection de l'environnement et qu'il peut servir de garde-fou sur les questions sociales.

Un défaut de compréhension des caractéristiques de ces investissements -et notamment de leurs risques- serait responsable de ce phénomène.

ble Investment (SRI). This approach pays much attention to Principles for Responsible Investment (PRI), the UNEP Finance Initiative collaboration with the UN Global Compact ([www.unpri.org](http://www.unpri.org)). An ever-increasing list of major institutional market participants have signed up to the voluntary codes of conduct of this program. It can be seen as a clear indication of an emerging shift in our social norms; a larger degree of corporate social responsibility is required. There are some signs that ethics are starting to be integrated into finance.

An important observation in the SRI market is that small retail investors still hesitate to participate in responsible investment. North America has a slightly better record than continental Europe, where many countries seem completely disinterested in retail SRI ([www.eurosif.org](http://www.eurosif.org)). This is quite strange, as the retail sector in particular is made up of the general public, and can therefore be the very source of emerging moral values. Additionally, this segment is the key stakeholder in the act of protecting the environment and acting as watchdog for social concerns. The immaturity of retail SRI seems puzzling yet it has previously been observed that small retail investors occasionally show perplexing behaviour. The usual suspect is their potential lack of understanding of investment characteristics, and of risk in particular. Now the somewhat inaccessible concept of a social impact factor has been added, and the

intricate combination may lead us towards an explanation.

The forthcoming analysis emphasizes two frontiers in implementing ethics in finance. The first rationalizes retail investor's awareness of the potential ethical implications of their investment decisions. This is an attempt to increase the level of deliberate choice in retail investment decisions, irrespective of their nature, and whether they are responsible or neutral. If a moral code of conduct of a society is rooted in the general public's behaviour, the most direct way of affecting the system is by a bottom-up change in behavior. Strengthening conscious, deliberate consumer choices in the financial market by mainstreaming responsible investment by the retail sector may accelerate a positive progression. The second frontier recognizes the culture among participants in the financial market as being a major facilitator of integrity and a fixation on the rational value-maximizing paradigm. It argues how crucial a factor education is in developing a sound relationship between these conflicting concepts. Implementing ethics in finance thus requires an investment in the skills of future market participants.

### **A new portfolio allocation**

The SRI mutual fund industry is keen to announce the performance of their activities compared with conventional counterparts. Over the last ten years, researchers have been eager to investigate whether envi-

L'analyse suivante met l'accent sur deux frontières dans le processus d'application de l'éthique dans la finance :

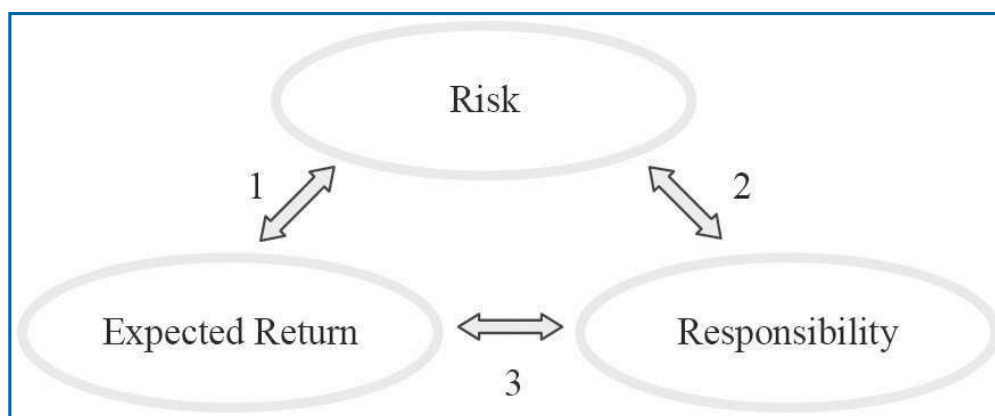
1) la rationalisation de ce que les petits investisseurs savent des implications éthiques potentielles de leurs choix d'investissement, et 2) la reconnaissance du rôle crucial de l'éducation.

ronmental, social and governmental (ESG) factors hold additional financial information, that has not yet been recognized by the general market (Renneboog *et al.*, 2007). Findings are not strictly homogeneous but the general conclusion appears to be that the SRI mutual fund industry is not outperformed by their value-neutral competitors. It leads to the convenient but perhaps hasty conclusion that portfolio responsibility can be provided as a free 'add on' to an investment. Still, it is defi-

nately a positive dimension to add to the promotion of SRI.

From a theoretical point of view it is also a very motivating result. Classical portfolio mean-variance analysis suggests that any limitation to the investment universe will naturally cause diminishing opportunities for diversification and imply higher risk taking or lower expected returns on portfolios. Likewise, it means that social ratings should include extra financial information that has hitherto not been used in the market,

**Figure 1: Preference for certainty and responsibility**



and that the advantage is sufficient to cover the costs of diversification.

Alternatively, it may be interesting to take a closer look at exactly how different the holdings of SRI mutual funds really are compared with value-neutral funds (Hawken, 2004). The fact that a lax definition of sustainable, green and responsible investment is leading actors in the

financial market to focus mainly on financial performance might be an emerging concern. Portfolio responsibility analysis might be limited to a bare minimum and only considered applicable to the extent that it does not interfere with the risk-return profile of the investment. Wisebrod (2007) suggests a technique for choosing a portfolio, where respon-

L'industrie des fonds d'investissement éthiques n'est pas surpassée par ses concurrents à connotation morale neutre.

Les notations sociales devraient intégrer des informations extra-financières qui, jusqu'à présent, n'ont jamais été utilisées dans le marché. L'avantage serait suffisant pour compenser les coûts de diversification.

Nous avons atteint un point où ce sous-secteur aspire à avoir un impact positif important sur les questions environnementales et sociales.

Mais la situation environnementale nous permet-elle réellement de nous soucier du changement climatique uniquement dans la mesure où il n'affecterait pas nos résultats financiers ?

sibility is preferred to the extent that it is possible to do so without worsening the financial risk-return profile.

The turning point is reached, however, when the subset of funds aim to have a significantly positive impact on social or environmental concerns. They are also confronted by the market sentiment that responsibility should come as a free 'add on'. But does our environmental situation allow us to only consider climate change to the extent that it does not affect our financial performance? Any sincere stakeholder in the environment would probably say 'no'. Exercising this view in the investment decision requires a new type of portfolio allocation that is equipped to allow for personal values.

### Quantification of values

Within portfolio theory the utility function is a tool that is often applied in order to express a potential preference for certainty. It is generally accepted that small retail investors are somewhat or even very

risk-averse, and the utility function can easily capture this feature in the allocation of assets. Questionnaires on gambling preferences are often applied in order to perform the actual quantification. A logical way of incorporating preferences for responsibility could therefore be to enhance this utility function with another dimension (Hallerbach *et al.*, 2002).

Wisebrod (2007) suggests that the habitual mean-variance analysis can be applied to an investment universe such as that situated in the group of investments that have the highest Sharpe's ratios, i.e. the optimal portfolios, the socially dominant portfolio is chosen. The Sharpe's ratio is conventionally calculated as the expected portfolio excess return per unit of risk inherent in the portfolio. If the investor is not willing to compromise on the risk-return profile of the investment, then this approach is quite sufficient. If, on the other hand, the investor has a strong preference for responsibility and for certainty, then this method does not necessarily provide the best solution.

#### Box 1: Extended evaluation of investment outcome

A very simple way of extending the usual evaluation of investment outcome is to consider the affine combination:

$$U(x,s)=(1-\alpha) u_1(x) + \alpha u_2(s)$$

where  $x$  describes the payoff of the investment while  $s$  denotes the weighted portfolio responsibility level. The parameter  $\alpha$  can be used to weigh the preference for non-financial outcome against financial outcome appropriately.

L'application de ces considérations aux décisions d'investissement impose de concevoir un nouveau type d'allocation de portefeuille, capable de prendre en compte les valeurs personnelles.

Il est communément admis que les petits investisseurs sont quelque peu, voire absolument réfractaires aux risques.

L'investisseur responsable et raisonnable considèrera l'ensemble élargi des attributs d'un portefeuille : le risque, le rendement attendu et la responsabilité.

The rational, responsible investor will consider the broader set of portfolio attributes: risk, expected return and responsibility.

It is therefore necessary to quantify the preferences for certainty and responsibility in an integrated manner (see Figure 1). It means that two out of the three relationships need to be determined, since the third relationship will be implicitly given.

The affine combination in Box 1 suggests that the responsible investor also considers how the corresponding value-neutral optimal investment would be constructed and which risk-return profile it would have. Thereby the investor is always well informed of the cost of responsibility.

It can be a challenging task for the provider of responsible retail invest-

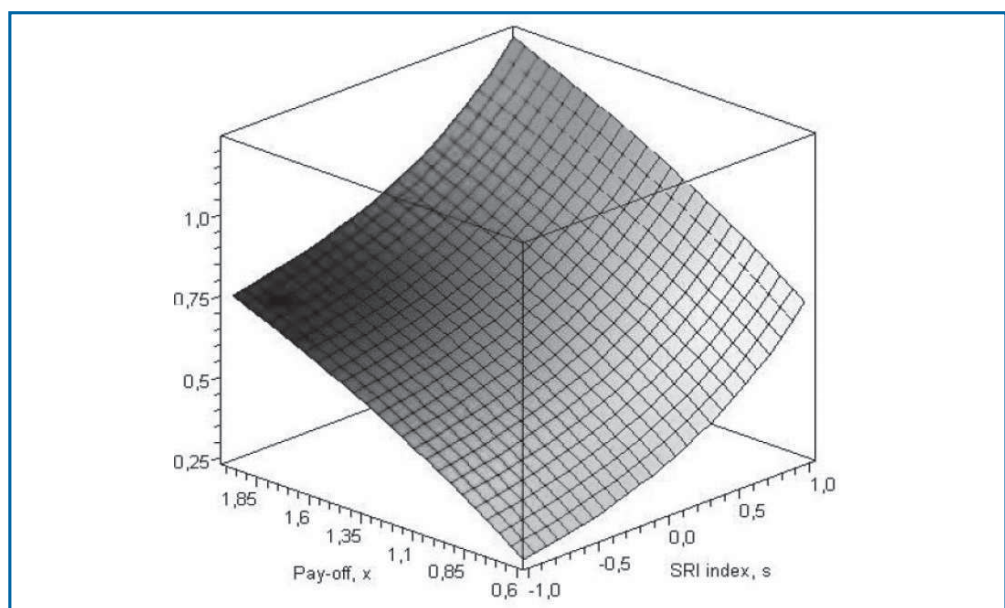
ments to assist in the quantification of 'U' as well as the parameter  $\lambda$ . Empirical estimations of these have so far not been possible, due to the lack of data on retail responsible investor behaviour but it will constitute an interesting future investigation. It is indeed a new type of preference but it is important to stress that fundamentally it is no different from the preference for certainty.

### Creating the right incentive

One way to establish the responsibility trade-off is to confront the investor with two opportunities as follows:

- A portfolio with a high and transparent social or environmental impact and with a given Sharpe's ratio.

**Figure 2: The shape of utility function**



Il est donc nécessaire de pouvoir quantifier de manière intégrée cette préférence pour ce qui est sûr et pour cette notion de responsabilité.

- A neutral investment constructed using the market portfolio, i.e. the tangency portfolio of the capital market line in the mean variance-analysis.

The latter is the optimal portfolio when considering only financial aspects. By construction it has a higher Sharpe's ratio than the prior opportunity since the market portfolio is defined by the highest possible Sharpe's ratio that can be obtained

in a given investment universe. The question is therefore: what social rating creates the right incentive for the responsible investor to choose one investment over another?

The investor can decide to be neutral, or only want to make a responsible investment if it does not largely affect the risk-return profile. Yet, the investor should also have the opportunity to prefer a certain responsibility profile on the grounds

### Box 2: Common maximisation of expected utility

$$\text{Max}_w E[U(x,s)] \text{ s.t. } W_0$$

where  $W_0$  loosely describes

a budget constraint or initial investment. The setup is technically simplified yet should be conceptually clear: the investment universe is evaluated with integrated preferences for certainty and responsibility.

L'investisseur peut décider de garder une posture neutre ou de vouloir uniquement réaliser un investissement responsable dans la mesure où sa décision n'affecte pas trop largement le profil risque-rendement.

Mais il doit aussi avoir la possibilité de privilégier un certain profil de responsabilité en choisissant soit un rendement attendu inférieur, soit un niveau de risque acceptable supérieur.

of either a lower expected payoff or a higher acceptable risk.

This is the essence of the determination of preferences for responsibility. Note that the general concept of socially aware consumption already takes the quantification of non-materialistic personal values into account. Consider the example of goods sold under the Fair Trade label or something as common as organic produce. Both embody the quantification of a price premium based on a personal belief or benefit to the consumer.

The example of organic produce is, however, only valid in this setting

when considering the positive environmental impact of the sector, i.e. not considering the health implications of not consuming dangerous chemicals.

### The 'right' investment

The problem of the responsible investor is how to choose a weighted investment portfolio,  $w$ . It summarizes the common maximization of expected utility, both financial and non-financial, at maturity of the investment (see Box 2).

The investor is now equipped to choose an investment that 'fits' with his or her personal values. Some in-

Les petits investisseurs sont confrontés à deux obstacles au moment de choisir un investissement responsable :

- 1) l'amélioration de la moyenne du secteur que l'indice ou le fonds prend en compte dans leurs possessions n'est généralement pas une information facilement accessible pour eux ;
- 2) l'essentiel d'une industrie donnée peut n'avoir aucun impact majeur sur un facteur social ou environnemental donné.

Par conséquent, si un investisseur est particulièrement intéressé par le bien-être collectif ou les grands enjeux de la planète, il peut s'avérer plus intéressant pour lui de choisir un plus petit panier d'actions correspondant à des notations sociales très élevées, dans le domaine d'application spécifiquement visé.

dexes, as the Dow Jones Sustainability Index (DJSI), have established themselves on the best-of-industry method. DJSI World includes the 10% highest socially rated companies in a number of different sub-sectors guaranteeing a reasonable diversification profile ([www.sustainability-index.com](http://www.sustainability-index.com)). This type of approach is meaningful, well explained and well founded.

Many SRI mutual funds also establish themselves with similar strategies. For the small retail investor choosing a responsible investment according to the previous section, however, it may not provide the best type of investment. Firstly, the improvement on the common industry average which the index or fund embody in their holdings may not be information that is readily available to the retail investor. Secondly, most of a given industry may not have a major impact on a given social or environmental factor, as even the top 10% can have very variable attitudes to sustainability. Thus, if an investor is particularly interested in social welfare and global issues, it might be worth selecting a smaller basket of stocks with very high social ratings in the particular area of interest. This would imply that the investor could obtain a large utility premium on the social side in the equation defining the utility function 'U'.

An investor who is willing to compromise the risk-return profile in order to obtain a highly rated investment will thereby be better off and essentially more satisfied with an in-

vestment chosen in the socially integrated optimal portfolio model than with the value-neutral conventional counterpart. The suggested meta-model is indented as an encouragement for investors to also consider their personal values in investment activities and to evaluate whether a responsible investment will provide them with an improved investment holding.

Any individual has the right to choose his or her values; religiously, environmentally, socially - or even contra-responsibly, if preferred. What all small retail investors could benefit from, however, is simply to become aware of their personal values: they might be positioned to benefit from a non-financial gain of a responsible investment which in turn may significantly affect the ultimate level of satisfaction with their investment activities.

### **The road ahead: the role of education**

Altering the norms of an entire industry is by no means simple. An essential key to implementing ethical considerations in the financial market is the education of financial professionals, regulators and teachers at the very beginning of the careers. The priority of what is taught in business schools worldwide plays a major role. Sadly, finance related courses with focus on sustainability concerns, moral conflicts or 'the human perspective' are often simply not offered in a masters programs in finance. The technical level of the

Le chemin à suivre  
Il n'est en rien aisé de modifier les normes d'une industrie tout entière. L'éducation des professionnels de la finance, des régulateurs et des enseignants en tout début de carrière constitue un élément clé pour l'intégration de considérations éthiques à la finance.

Les consommateurs n'ont généralement pas d'autre choix que de faire confiance aux organismes officiels de supervision de la concurrence pour veiller à ce que les établissements financiers agissent de façon juste.

Néanmoins, l'intégrité des produits financiers complexes est extrêmement difficile à garantir par la seule réglementation.

Il est nécessaire que les établissements financiers eux-mêmes disposent d'une solide connaissance des conflits moraux potentiels existant dans leur secteur d'activité.

education and a tight time schedule may be the cause, but the fact remains that many financial engineers will eventually have to cope with working on potentially complex underlying human perspectives, even in asset valuation. It is fundamental to understand such questions as: what is fairness in the financial market? How does market regulation seek to balance efficiency and sufficiently equal opportunities without compromising competition and the free market? And what are fair and unfair advantages in terms of access to information?

### The need for ethics

It is likely to benefit the financial system as such to have both the industry as well as regulators equipped with an early understanding of the necessary conditions for an efficient capital market, the often considered theoretical ideal. The theory of financial contracting includes the question of agency theory that concerns conflict of interest and the respect of confidentiality. As the financial market grows more complex, it is of ever increasing importance that this particular area be properly understood. Consumers often have no choice but to rely on official bodies that oversee competition in order to ensure that they are treated fairly by the various financial institutions. Stakeholders in the industry will all stand to gain from the inclusion of a basic moral code of conduct in the intricate contracting that exists. How else can we expect fund managers not to take

advantage of the lax definitions of responsible investment, making it a value-generating advantage, when they have been taught in university that rational value-maximization is the only virtue?

If we consider the financial crisis, ethical aspects of selling practice and financial advice also play a key part in the future development of a healthy financial service sector. The integrity of complex financial products is extremely difficult to guarantee by regulation alone, simply because of their perplexing nature. It is necessary for financial institutions themselves to have a solid understanding of the potential moral conflicts that exist in their line of business. Along with the suggested educational input, morer research on ethical issues in neoclassical finance theory is also essential.

Twenty years ago, Horrigan (1987) already gave a clear Kantian analysis of the most frequent assumptions that exist in many areas of finance. He found clear scenarii of system break-down in several cases. He proved the need for ethics not only within the subjects of qualitative corporate finance but also for the quantitative scene. Since that analysis was made, the complexity of the financial market and pricing models has increased exponentially. Yet they still build on the same underlying norms and values; an observation which only enhances the relevance of Horrigan's study.

This article aimed to demonstrate two important ways of implementing



La crise financière nous donne une occasion unique de permettre au grand public de faire des choix d'investissement éclairés, fondés sur de vraies valeurs et de leur faire prendre mieux conscience des répercussions de leurs choix d'investissement.

ethics in finance; portfolio allocation of the small retail investor with preferences for responsibility, and the education of future finance industry stakeholders. We put forward the idea that the financial crisis provides a unique opportunity to engage the general public in an informed, value-based choice of investments as well as to promote awareness of the implications of their investment activities. We also demonstrated that potential personal benefits from a responsible portfolio allocation can exist, and we can conclude that for the SRI industry to thrive, it is vitally important that responsibility is not reduced to a 'green stamp' conferred by a loose definition of SRI.

The second line of implementation looked at the necessary investment in education: business schools worldwide are centrally positioned in developing the integrity and efficient use of ethics in finance. The major theme is the comprehension of underlying, complex non-financial values in finance theory as well as in business practice. So should we invest as if people and planet mattered? Well, it all depends. It depends on what we consider as really important to us, on our values as professionals, individuals and society. If we make sure to feed these values into our financial system, it will produce the right answer. •

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