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Les CAHIERS LOUIS BACHELIER

Economic and financial news seen through research

How can finance support the common interest?

With Christian Gollier, Patricia Crifo, Loredana Ureche-Rangau, Simone Sepe and Édouard Challe

INVESTIR L'AVENIR

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What projects should be supported to ensure the long-term welfare of society? Should these actions be taken care of by governments, companies, or individuals? Do we have the right tools to evaluate these choices and to ensure responsible corporate behaviour? The debate on these issues has intensified in 2018. In his letter to shareholders, Larry Fink, CEO of BlackRock, the world's leading investment management corporation, underlined the responsibility of companies. "Society is demanding that companies, both public and private, serve a social purpose. To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society." In France, the Action Plan for Business Growth and Transformation (PACTE) proposes that a social and environmental dimension be included in the definition of corporate purpose in the Civil Code.

There is still a long way to go in understanding how finance can combine the interests of current generations with those of future generations, and with those of "stakeholders" other than shareholders and investors. The Sustainable Finance and Responsible Investment* (FDIR) Chair, jointly run by the Ecole Polytechnique and Toulouse School of Economics (TSE), with the support of private partners and the Institut Louis Bachelier, has tried for ten years to provide answers to these questions. This new issue of Cahiers Louis Bachelier presents recent work carried out within the Chair.

In an interview, Christian Gollier describes the difficulties of integrating climate risk into investment decisions, where the problem of measuring the social value of investments is compounded by the complexity of coordinating governments and integrating the well-being of future generations. He also clarifies the role that socially responsible investment (SRI) actors can play in supporting responsible investment policies.

Drawing on a pioneering empirical study in the French context, the second article, by Patricia Crifo, examines the profitability of companies that make socially responsible commitments.

The third article, based on an interview with Loredana Ureche-Rangau, considers the argument put forward by the CEO of BlackRock that a universal fund cares by definition about social welfare. It shows that a universal fund objective leads to voting policies different from those of a fund, such as the Norway Sovereign Wealth Fund, that has an explicit mandate to represent citizens.

The fourth article, by Simone Sepe, analyses the issue of "good" corporate governance in the United States. It shows that a governance structure with an adequate board of directors can alleviate the short-term pressure from shareholders, so as to develop long-term projects.

The final article, by Édouard Challe, focuses on the role of finance in economic development, and shows that an increase in capital inflows can have a negative effect on the quality of institutions.

Enjoy your reading!

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"FINANCIAL MARKETS CAN PLAY A ROLE IN THE FIGHT AGAINST CLIMATE CHANGE"

If the financing of the energy transition is becoming ever more urgent, given the growing impact of global warming, it is however necessary to direct more international capital towards investments that contribute to collective well-being. In this regard, it is especially important to take into account the environmental impacts of private investments. These crucial issues for the future of the planet and future generations are addressed at length in the research work of Christian Gollier, director of Toulouse School of Economics (TSE). In his latest book, *Ethical Asset Valuation and the Good Society* (Columbia University Press, published in October 2017), he has developed an atypical scientific approach to evaluate savings and investment decisions, so that they can serve the public interest. In this interview, he discusses the main recommendations arising from his work.

ILB: In your essay published in 2017, you develop a method that runs counter to classical economic theory. Your aim is to orient investment toward long-term assets that will bring social benefits to future generations. What is the starting point for your work?

Christian Gollier: In recent years, finance has been heavily criticized for being the source of many dysfunctions, the most dramatic example of which was the financial crisis of 2008-2012. I wanted to reflect on this topic, especially with socially responsible investors in mind, with a view both to putting these criticisms in perspective and to providing an ethical framework for thinking about the allocation of capital in the economy. To start from the basics, it's important to remember that companies do not only produce returns and employ labour, they also generate both positive and negative externalities, commonly referred to as extra-financial performance. However, these externalities should be taken into account, from the standpoint of the general interest, in issues of asset valuation, portfolio allocations and real investment in the economy. One of the major problems of our economies, for the last two hundred years, has been the efficient allocation of capital. Until now, the best solution to the problem has been the financial markets, but this is not perfect in terms of efficiency and compatibility with the general interest.

What are the current sources of market inefficiency?

CG: The issue of climate change is crucial. Companies have no incentive to reduce their carbon emissions, although there have been some attempts around the world. I'm thinking in particular of the European emissions trading scheme for carbon allowances, which is the most successful system. Unfortunately, for several reasons, both political and economic, the price of carbon allowances is currently too low for companies to really take into account, in their investment decisions and technological choices, the damage to the climate caused by the use of fossil fuels.

What solutions might there be for solving the problem of negative externalities caused by companies?

CG: Like most academic economists around the world, I believe that governments should strengthen their policy of combatting climate change by imposing a higher carbon price than the one prevailing today in the emission allowances markets. Another alternative would

Christian Gollier is director of Toulouse School of Economics, which he founded with Jean Tirole. He is an internationally renowned researcher in Decision Theory under Uncertainty and its applications in climate economics, finance, and cost-benefit analysis, with a special interest in long-term (sustainable) effects. He is one of the lead authors of the last two IPCC reports. He is also president-elect of the European Association of Environmental and Resource Economists (EAERE).

be for companies themselves, through incentives from the financial markets, to incorporate a carbon price and their environmental performance into their investment choices, so that they make the most intelligent decisions. This is what the socially responsible investment funds (SRI) market is aiming to do. In my book, I try to combine the basic principles leading to a transparent methodology for evaluating investment choices with a socially responsible approach, since the financial markets can play a part in the fight against climate change.

Governments should strengthen their policy of combatting climate change by imposing a higher carbon price than the one prevailing today in the emission allowances markets.

What principles and methodology should be advocated for corporate investors to adopt a more socially responsible approach?

CG: I propose identifying the different sources of non-financial performance, such as safety at work or the reduction of inequalities, as well as the various emissions of pollutants. In addressing SRI funds, my aim is to make them aware of the importance of including carbon prices and negative externalities into their investment valuations and portfolio allocations, as well as simply maximizing returns. For example, companies are currently obliged to publish their carbon emissions in their annual reports. SRI funds should therefore look at corporate emissions and multiply them by the price of carbon, and then re-incorporate this cost in their valuations. They should also adopt the same method for other negative externalities, and even for positive externalities such as well-being within the company and wage increases for the lowest paid employees (possibly because of relocation), which helps reduce global inequality.

Put simply, this is a bit like a bonus/malus system.

CG: Exactly. As in the car insurance market. Some companies emit more than others. In general, SRI funds adopt a "best-in-class" view, but without really quantifying emissions. Instead they make relative comparisons between companies according to their degree of social responsibility.

What do you propose for assessments of companies by SRI funds?

CG: My approach goes much further than the simple "best-in-class" view. I propose using quantitative finance techniques, particularly the Markowitz model, on dividend-per-share profitability data, which includes non-financial performance ethically evaluated under an SRI filter. It doesn't matter that SRI funds post different values for positive and negative externalities. What is important is that investors can choose in accordance with their own ethical preferences. This would also make SRI funds more transparent, and therefore more attractive.

With your approach, each SRI fund would decide on the values to be given to externalities.

CG: It's not a matter of assigned values arbitrarily. For example, if we take the price of carbon, an SRI fund might decide to estimate it at 100 euros per tonne. Is that sufficiently ethical or not? Many economists are working on this topic, including within the IPCC (Intergovernmental Panel on Climate Change), and have much to contribute. For economists, the ideal solution would be to price a tonne of carbon at the marginal cost or damage it generates, even if its actual price level has not been settled. I think that the damage caused by a tonne of carbon should be put around 50 euros, even if there is no consensus among scientists on this subject. At the end of the day, SRI funds should be looking to environmental economists to calculate the cost of carbon for society.

In the absence of an international consensus on the price of carbon, is it not difficult to apply your approach?

CG: It's true that there's residual scientific uncertainty about the intensity of climate damage caused by carbon emissions and it will take a few more decades to assess it conclusively. But the lack of absolute certainty does not mean that we should refrain from acting or taking decisions, especially since we all live under uncertainty of one kind or another, yet we make decisions. Uncertainty should not be a reason for inaction. Instead, we should incorporate risk into our decisions. Financiers have been doing this for ages. So why not do so with regard to climate change? ➜

It is preferable to apply a low or zero discount rate for low-risk, long-term investments (longer than 40 years), in order to encourage governments and companies to implement them.

Among other inefficiencies of the financial markets, is there not also their short-termism?

CG: This question should be addressed in another way. A company may be prompted to be potentially short-termist because capital is expensive in the financial markets. However, the higher the cost of capital mobilization, the more the company will seek to extricate itself as quickly as possible in order not to penalize its profitability. In such a case, the company is encouraged to be short-termist. The cost of capital thus represents the profitability required by investors, which is a combination of the interest rates at which the company borrows and the rate of return on the shares it has issued.

To see whether the financial markets are compelling a company to be short-termist, we need to analyse the interest rates at which it has borrowed in the past. It is these rates that will determine its investment choices and they approximate to a discount rate determined by the financial markets. In the twentieth century, low-risk companies, which were able to finance their capital at an interest rate close to that of government bonds, in fact borrowed at very low real interest rates. Indeed they were much lower than the 4% or so suggested in conventional finance models, with real interest rates in the United States of around 1%, while in France they were even negative due to high inflation. In actual fact the financial markets were long-termist with these low-risk companies. This means that, in order to finance them, households had to save a lot, thereby fuelling the high growth of the last century and our current well-being, despite their having an income level five to ten times lower than our own. On the other hand, for very risky companies, which invested in the new technologies of the time and carried out extensive research and development, the financial markets required much higher rates of return with a high risk premium. This situation tended to inhibit their long-term risk-taking, which is not good for growth and innovation.

If earlier generations were long-termist in terms of saving, what can be said about the present generation and the consequences for future generations?

CG: What the theory of modern finance tells us is that financial markets generate interest rates that are too low and risk premiums that are too high. Put simply, the financial markets make entrepreneurs overly cautious, whereas households are able to control their risks through large, diversified portfolios.

Let us return to the valuation of long-term investments, whose future net social benefits are discounted in order to measure their value creation for society. At level should this discount rate be set?

CG: The huge uncertainties characterising the very long term justify making major sacrifices today for future generations. It is therefore preferable to apply a low or zero discount rate for low-risk, long-term investments (longer than 40 years), in order to encourage governments and companies to implement them. However, for investments over a 20 or 30 year time span, I recommend a real discount rate of around 2%. Indeed, in a high-growth world like ours, future generations will be richer than the present generation. Yet saving today means transferring purchasing power to future generations, thereby increasing intergenerational inequalities. This may seem shocking at first glance, but it should be remembered that even though France has been in economic crisis for 40 years its real GDP has greatly increased over that period.

In conclusion, what are your priority recommendations for reducing the current impact of climate change on future generations and thus promoting virtuous investment?

CG: The best solution would be for countries to agree on a universal carbon price worldwide. But this will be very difficult if not impossible to implement given national selfishness, the prime example being 'America First'. As I mentioned earlier, the fallback alternative would be for financial markets to introduce mechanisms for evaluating their investment projects or decisions for governments, companies and entrepreneurs, that include a carbon price at a level compatible with the general interest. In this respect, the growth of SRI funds is a good way of achieving it, though investors need to be sufficiently motivated to move in this direction. ●

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IS CSR PROFITABLE FOR BUSINESSES?

While the rise of corporate social responsibility (CSR) is a move in the right direction, there is no clear consensus in the academic literature as to its positive impact on economic performance. Research is providing new insights into this important issue.

How can virtuous behaviour in favour of the environment, employees, customers and suppliers be reconciled with the maximization of profits? This thorny issue, which may create a dilemma for heads of companies, highlights the strategic challenges involved in implementing corporate social responsibility (CSR). Emerging some twenty years ago, CSR is defined as positive voluntary initiatives taken by companies regarding social, environmental and ethical concerns in the context of their economic activities. In line with this definition, CSR covers a variety of practices in different areas – the environment or green issues, human resources, relations with stakeholders, governance, etc. – that extend beyond the legal framework imposed by the regulations in force. It must be said that the regulatory framework has greatly favoured CSR in developed countries, especially France, in particular with the NRE (Nouvelles régulations économiques) Act of 2001 and the Grenelle II Act of 2010. Companies consequently need to find an economic justification for adopting CSR. "We wanted to know if there were economic reasons, over and beyond communication and marketing, to justify the inclusion of CSR practices by companies," says Patricia Crifo. All the more so since, despite extensive academic literature on the subject, no consensus has emerged as to the positive contribution of CSR to corporate results. Some studies have found that CSR improves profitability, while others have drawn the opposite conclusion. One of the reasons for this divergence is the trade-off between quantity and quality for measuring the impact of the different aspects of CSR. "Quantity concerns the effects of different dimensions of CSR calculated separately or aggregated, whereas quality is estimated by observing the mutual interaction between these dimensions," Patricia Crifo explains. "The lack of consensus in the literature was the conceptual starting point of our study. At the present time, this contrasting academic record has been counterbalanced to some extent, and it has been shown that CSR gives companies a slight economic edge. Nevertheless, scientific research has had trouble explaining why this should be so. Our work has enabled us to see the mediating factor more clearly."

A GROUND-BREAKING EMPIRICAL STUDY IN THE FRENCH CONTEXT

For their study, the researchers used INSEE data on companies, based on the COI (Changements Organisationnels et l'Informatisation) survey carried out in 2006. Note that this survey covers a wide range of topics, and is not specifically concerned with CSR. "On the basis of the companies' responses, we then looked at the quantitative data pertaining to CSR in order to create our sample of more than 10,000 companies, including SMEs. This original database

Despite extensive academic literature on the subject, no consensus has emerged as to the positive contribution of CSR to corporate results.

Based on the paper *CSR related management practices and Firm Performance: An Empirical Analysis of the Quantity-Quality Trade-off on French Data,* International Journal of Production Economics, Volume 171, 2016, by Patricia Crifo, Marc-Arthur Diaye and Sanja Pekovic, and on an interview with Patricia Crifo.

Patricia Crifo former student of Ecole Normale Supérieure (Cachan), PhD University Lyon, is Professor at University Paris Ouest and at Ecole Polytechnique (France), external member of CIRANO (Montréal), member of the French Economic Council for Sustainable Development and the National commission on Environmental Economics and co-responsible of the chair for Sustainable Finance and Responsible Investment (chaire FDIR). She was nominated Best Young Economist Le Monde/Cercle des économistes (2010), and was awarded the title of «Chevalier de l'Ordre National du Mérite» (2014), as well as Best Young Researcher Prize (Lyon 2002). Her research interests lie in green growth, corporate social and environmental responsibility, sustainable finance, technical progress, work organization and inequality.

Methodology

By drawing on stakeholder theory, the researchers investigated the links between corporate social responsibility (CSR) and companies' profits. They carried out an empirical analysis based on an original database of more than 10,000 French companies representative of the national economic fabric. Several types of econometric model were estimated to ensure the robustness of the results and to take into account the endogeneity of certain variables in the regressions, in particular simultaneous equation models and models using the instrumental variables method.

allowed us to correct various biases, including bias related to the size of companies, given the many SMEs in the sample, and bias from overestimation of CSR practices in large groups and underestimation of these in SMEs," says Patricia Crifo. The researchers then focused on three aspects of CSR: environmental practices, human resource management (HR), and relations with customers and suppliers, based on the data available. On this basis, they were able to construct indicators for estimating the effects of the three CSR dimensions on company profits. "We first measured the impact on profits of CSR dimensions taken separately and as an aggregate in a quantitative analysis. We then studied the effects of interactions between these three dimensions, to give us a qualitative view of the combined consequences of CSR on the companies' results," Patricia Crifo says.

CSR IS ADVANTAGEOUS FOR COMPANIES

From their econometric findings, the researchers were able to produce robust and meaningful results. In fact, all three dimensions of CSR analysed have positive effects on corporate profits, both in isolation and aggregated. "Contrary to popular belief, CSR does not generate additional costs for companies. On the contrary, it improves their profitability. In another study, conducted for France Stratégie on a sample of 8,500 companies, we found that, on average, CSR boosts the profits of companies that use this approach by 13%, compared to companies that do not," Patricia Crifo says.

THE QUALITATIVE ASPECTS OF CSR SHOULD ALSO BE EMPHASIZED

The interactions between the different dimensions of CSR are also positive, with only their levels of intensity varying. Thus the interaction between the environmental and the HR dimensions is the optimal combination for company profitability. Conversely, relationships with customers and suppliers have a lesser effect than the other two dimensions in terms of business results. "This finding does not mean that companies should focus on one dimension rather than another, or limit themselves to consolidating best practices. The most effective strategy would be to focus on the qualitative aspects of CSR practices, which would form part of the company's overall vision," Patricia Crifo suggests.

Given these positive CSR results with regard to corporate profitability, financial incentives by government to promote CSR would not make economic sense, as they would result in negative windfall effects. "The role of the public authorities is rather to encourage CSR through education. What is needed is the continuation of current policies, based on requirements for transparency on the part of companies. It is this combination of government regulation and corporate self-regulation that is the right solution," Patricia Crifo says.

Key points

- On average, CSR raises the profits of companies that use this approach by 13%, compared to companies that do not.
- To take full advantage of the benefits of CSR, companies need to focus on qualitative practices rather than simply consolidating CSR actions. CSR should consequently be part of managers' overall strategy.
- Government financial incentives are not an optimal instrument for encouraging CSR. It is preferable to continue the current policy, based on the transparency of the information provided by companies, while combining government regulation and corporate self-regulation.

HOW DO INSTITUTIONAL INVESTORS BEHAVE WITH REGARD TO CORPORATE GREENHOUSE GAS EMISSIONS?

In response to the threat of global warming, investors are increasingly concerned about negative externalities, especially environmental, generated by companies. Researchers have looked at the voting behaviour of BlackRock and the Norwegian sovereign wealth fund at general shareholder meetings.

Although the effects of anthropogenic global warming are becoming increasingly evident, as recent weather events have shown, greenhouse gas emissions continue their upward trend. Companies are to a significant extent responsible in this regard, through the negative externalities, particularly environmental, generated by their economic activities. Yet society pays an enormous price for the resulting environmental damage. According to Trucost, environmental damage (greenhouse gas emissions, water use and air pollution) caused by businesses cost the global economy about $4,700 billion in 2013. “This huge sum represented 6% of global GDP in 2013. On present trends, forecasts for 2050 are projecting 18% of global GDP, solely for these environmental externalities”, Loredana Ureche-Rangau says.

Companies are to a significant extent responsible, through the negative externalities, particularly environmental externalities, generated by their economic activities.

INSTITUTIONAL INVESTORS ARE MAKING KNOWN THEIR COMMITMENT TO THE CLIMATE

In 2015, institutional investors owned slightly more than 60% of the shares listed worldwide. Because of their significant weight in the financial markets, these long-term investors therefore have a role to play in influencing the environmental policies of the companies in which they have a stake. In early 2018, Larry Fink, CEO of BlackRock, the world’s largest asset manager with a $5 trillion portfolio under management, said he wanted more transparency and involvement regarding the environmental impacts of companies. Last July, the Norwegian sovereign wealth fund, the largest in the world with more than $1 trillion of assets managed, committed itself to take account of climate change risk. Loredana Ureche-Rangau comments:
These two major players are viewed as universal owners. BlackRock holds at least 5% of the equity in 2,500 companies around the world, while the Norwegian fund owns at least 1% of the shares of the companies in which it invests. We wanted to see how they vote and how they influence corporate strategies at shareholder meetings. Of course, these two big investors have very different goals and philosophies. BlackRock is a privately owned company that has a fiduciary duty to its shareholders, while the Norwegian sovereign fund acts as manager and invests the revenue from oil rent with a view to yielding a profit for future generations, while being accountable to the Norwegian parliament and people. But they are also universal owners, which gives us insight into their incentives to vote for a resolution and thus oppose the management of a company.

Based on the paper *BlackRock vs Norway Fund at Shareholder Meetings: Institutional Investors’ Votes on Corporate Externalities* by Marie Brière, Sébastien Pouget and Loredana Ureche-Rangau and on an interview with Loredana Ureche-Rangau.

Loredana Ureche-Rangau is Professor of Finance at the University of Picardie Jules Verne, Amiens and a member of the Centre for Research on Industry, Institutions and Economic Systems, Amiens (CRIISEA). Her research topics include sovereign debt crises, financial markets dynamics modelling, socially responsible investments, Islamic finance, and financial intermediation.

Methodology

The researchers conducted an empirical study of voting at shareholder meetings by BlackRock and the Norwegian sovereign wealth fund on joint resolutions, in order to explain their likelihood of opposing the management of companies in which they hold equity. They collected more than 35,000 joint resolutions voted on by these two major investors, and classified them by theme (environmental, social, governance, etc.) in accordance with the criteria established by Institutional Shareholder Services. Using binomial probit regressions and explanatory variables likely to influence the voting, they were then able to identify those variables affecting negative externalities – especially environmental externalities and in particular those pertaining to greenhouse gas emissions. The researchers then used this information to obtain their conclusions.

OPPOSITION RATES ON ENVIRONMENTAL RESOLUTIONS GO BEYOND FINANCIAL ISSUES

For their empirical study, the authors of the scientific paper focused on voting at shareholder meetings in 2014, analysing 35,382 joint resolutions voted by the two actors in 2,796 companies worldwide. This long-term study allowed the researchers to classify resolutions by theme (environmental, social, governance, financial, etc.) and by sponsors (shareholders, management). Significant results were obtained. Of the resolutions proposed by shareholders, BlackRock voted in opposition to the management of the company in 9% of cases and the Norwegian sovereign wealth fund in 34% of cases. Among these resolutions, the sovereign fund opposed the company management in 49% of cases on resolutions concerning the environment and social issues. For its part, BlackRock opposed management on environmental resolutions in 4% of cases and on social issues in 9%. Regarding resolutions on greenhouse gas emissions, the Norwegian fund opposed management in 83% of cases, against 4% for BlackRock. "Both funds opposed more to management on environmental and social resolutions than on financial resolutions, but the sovereign wealth fund is more active on these issues," Loredana Ureche-Rangau emphasizes.

EXTERNALITIES INEVITABLY AFFECT UNIVERSAL OWNERS

To explain and justify the commitment of these funds to combat corporate environmental and social externalities, the academic literature has emphasized the concept of 'universal owners', which are highly diversified and have a large number of holdings. The negative externalities caused by a company in the portfolio of these investors may have a negative impact on other companies in the same portfolio and thus affect its overall profitability. "In our study, we found concept of universal owner to be necessary, but not sufficient, to explain an active policy of voting against environmental externalities. Other levers are at work," Loredana Ureche-Rangau says. The concept of delegated philanthropy, which promotes the preferences and values of those represented by the funds (clients, investors, citizens), could also be an incentive for institutional investors. Loredana Ureche-Rangau adds:

At the moment, we cannot clearly prove this, but we have been continuing our work on the data of other funds over several years. However, in terms of public policy recommendation, we can say that it is not possible for universal investors to discipline multinationals generating negative externalities simply because they are universal owners. They need to be provided with an incentive, so that their commitments better reflect the preferences and values of clients and citizens. For their part, regulators could also encourage institutional investors to take into account the opinions of their clients and to provide greater clarity in their voting on negative externalities. Lastly, negative externalities are not taken into account in the valuation tools used in corporate finance such as net present value, which is purely financial. These tools should be broadened by including cost-benefit analyses.

These recommendations merit being thought seriously about at a time when global warming is becoming ever more worrying. ●

Key points

- Negative externalities caused by corporate activity are very costly for society. Institutional investors have a role to play in reducing them, because of their significant weight as shareholders of companies worldwide.
- The notion of universal investor is necessary but not sufficient for explaining the voting policy of large institutional investors.
- The commitment of institutional investors in their voting policy at shareholders' meetings should reflect the values and preferences of the people they represent (clients, investors, citizens).

WHAT TYPE OF BOARD CREATES THE MOST LONG-TERM VALUE FOR US COMPANIES?

Good governance of listed companies, exercised by boards of directors, is crucial for defining appropriate strategies and thus fostering long-term value creation. However, the academic literature suggests that the impact of staggered boards – a proportion of whose members are renewed every year – is negative. Researchers turn over previous results and offer a new perspective on this question.

Yet corporate governance is the subject of much debate, particularly in developed countries, as to which practices on the part of the directors are the right ones.

As well as takeover bids, pressure from activist investment funds and quarterly reporting obligations for financial communication, directors of listed companies have to contend with short-term requirements, which are not always compatible with long-term development and investment strategies. It is in this sometimes paradoxical or even ambiguous context that the members of boards of directors exercise their functions related to corporate governance. Yet corporate governance is the subject of much debate, particularly in developed countries, as to which practices on the part of the directors are the right ones. Admittedly, codes of governance – imposed by law and/or promoted by employer organizations and management associations – are regularly reviewed or discussed by the actors concerned, but there is no standard formula as to what constitutes good governance.

In the United States, for example, corporate law is directly dependent on the federated states, with each state offering different corporate law rules. Also, most of the corporate law rules are default, meaning that contracting parties can change the legal default, including corporate governance rules, as they wish. Finally, good governance is still far from being an exact science.

STAGGERED BOARDS LIMIT PRESSURE FROM FINANCIAL MARKETS

There are two different board governance structures for listed companies in the United States: the unitary board, all of whose members are elected at the same time, and the staggered board, divided into two or three groups of directors, of which only one group is elected each year. "When a company has a staggered board of directors, it takes at least two elections, or two years, to renew more than 50% of the directors and thus obtain a majority. Consequently it is more difficult for the financial markets, personified by shareholders, to exert pressure on directors to improve performance in the short term. However, some academic studies have concluded that staggered boards lead to the entrenchment of directors at the expense of shareholder interests. This research topic is therefore very important in the United States, because many companies have this type of governance," Simone Sepe says.

STAGGERED BOARDS ARE CORRELATED WITH LOWER COMPANY VALUATIONS…

A 2005 empirical study by the law and economist Lucian Bebchuk, a professor at Harvard Law School, found that, as well as the risk of entrenchment of directors and administrators, staggered boards of directors tended to lower

Based on the paper *Staggered Boards and Long-Term Firm Value, Revisited,* Journal of Financial Economics, Volume 126, 2017, by Martijn Cremers, Lubomir P. Litov and Simone M. Sepe, and on an interview with Simone Sepe.

Simone Sepe is Professor of Law and Finance at the University of Arizona, professor of Law at Toulouse 1 Capitole University, researcher at the Institute for Advanced Study in Toulouse and at Toulouse School of Economics. He is also a research member of the European Corporate Governance Institute (ECGI). Simone's areas of expertise include business organizations, corporate finance, law and economics, and jurisprudence. His scholarship focuses on corporate governance and the theory of institutions. His current research focuses on the firm value implications of corporate governance provisions. He holds doctoral degrees in both law and economics. Simone practised banking and finance law at Clifford Chance, an international law firm based in London, and worked as an investment banker at Fortress Investment Group in London and New York.

Methodology

The researchers carried out a theoretical and empirical analysis to identify the causal impact of staggered boards of directors on the long-term valuation of companies. Using a sample of panel data from more than 3,000 US listed companies covering the period 1978-2015, they performed econometric calculations and tests that robustly demonstrated the positive consequences of this type of governance. They variously used time series analyses, matching analyses, the generalized method of moments and an event study, following the near-mandatory establishment, in 1990, of staggered boards of directors in Massachusetts.

the firm's value, as measured by Tobin's Q. "The paper reveals a correlation between staggered boards and lower firm values, though without proving a causal relationship. It is true that this type of governance structure is associated with lower firm valuations. This is because lower-valued companies have a greater interest in adopting a staggered board of directors in order to reduce their vulnerability to take-over bids. In our work, we wanted to clearly identify a causal link between staggered boards of directors and firms' long-term valuations," says Simone Sepe.

… CONTRARY TO THE PREVIOUS ANALYSIS, NEW FINDINGS SUGGEST THAT STAGGERED BOARDS INCREASE FIRM VALUE

To compare the respective impact of unitary and staggered boards on the long-term valuation of companies, the researchers first collected data on more than 3,000 companies listed in the S&P 1,500 over the period 1978-2015. They then carried out various types of econometric study to obtain their results. "In our work, the negative correlation found by Bebchuk is not statistically significant. Indeed we found the reverse, combined with a clear causal link: companies with staggered boards have better valuations in the long run," says Simone Sepe. "The robustness of our results has been verified and tested with several econometric techniques. Our work shows that staggered boards of directors increase companies' long-term valuation, measured by Tobin's Q coefficient, by 3.2%." The positive causal link found by the researchers can be explained by the bonding hypothesis, according to which directors cannot develop a long-term investment strategy when under constant pressure from shareholders and the prospect of the complete replacement of the board. On the other hand, a staggered board of directors fosters the engagement of directors and stakeholders (customers, employees, suppliers, etc.) over the long term, because it is less subject to shareholder pressure." Shareholder oversight is very important, but in the short term – two or three years, in this case – shareholders should not intervene in companies' investment policies," Simone Sepe argues. Among the companies that have the greatest interest in setting up this governance structure are those with significant R&D outlay, as such investment requires time, which shareholders are not always ready to grant.

Lastly, the researchers found no evidence from their study that staggered boards create a risk of entrenchment by the company's directors and officers. These various positive findings amount to powerful arguments for this type of governance in US listed companies. ●

Key points

- Staggered boards increase the long-term value of the companies that have introduced this type of governance. This result, running counter to the academic literature, is explained by the bonding hypothesis, which suggests that management approves more investment – the creator of long-term value – when it is not under constant pressure from shareholders.
- Staggered boards of directors are also beneficial to shareholders in the long term, in that they generate greater returns.
- Staggered boards provide more value to companies that are the most innovative in terms of R & D, because these investments take time. Conversely, because of shareholder pressure, it is more difficult for a unitary board to justify such expenditure.

WHAT ARE THE LINKS BETWEEN THE QUALITY OF INSTITUTIONS AND A COUNTRY'S CURRENT ACCOUNT?

The institutions of a country are supposed to participate in its economic development, but in some countries, especially in southern Europe, institutions have deteriorated significantly, and did so well in advance of the financial crisis. Researchers have sought to account for this situation both theoretically and in terms of empirical evidence.

The introduction of the euro was originally intended to create political and economic convergence between the eurozone's member countries – a goal that has remained unfulfilled.

While the economic outlook for the eurozone has considerably improved recently, the impact of the financial crisis is still being felt, especially in southern European countries (Spain, Greece, Italy, Portugal). What is more, the sovereign debt crisis, from 2010 to 2012, highlighted the lack of convergence of the member states of the monetary union and the problems faced by its peripheral countries. Indicators produced by the World Bank on the quality of the institutions of these four peripheral countries have worsened since the mid-1990s, a period characterized by the run-up to, and introduction of, the euro. Over the same period, all these countries experienced current account deficits, as a result of massive inflows of foreign capital, fuelled by favourable external financing conditions. "Following the economic and financial problems of the euro zone, we wanted to examine the dynamics at work in the monetary union by looking at the differences between the countries of the 'core' and those of the 'periphery'," Édouard Challe says. "We brought to light a crucial link between the deterioration of the institutions of the countries of southern Europe and the fact that they have been recipients of large amounts of external capital, either public or private or both."

To analyse this phenomenon of institutional deterioration, the researchers compared the World Governance Indicators (WGI) – compiled by the World Bank and covering various measures such as the efficiency of the government, the rule of law and the control of corruption – for Spain, Greece, Italy and Portugal and for the rest of the euro zone. "The quality of the institutions of the countries of southern Europe clearly deteriorated between 1996 and 2011 in comparison to the other countries of the monetary union and more generally to OECD countries," Édouard Challe says. Yet the introduction of the euro was originally intended to create political and economic convergence between the eurozone's member countries – a goal that has remained unfulfilled.

INSTITUTIONAL DETERIORATION IS NOT LIMITED TO SOUTHERN EUROPE

After noting the correlation between the deterioration of institutions and massive capital inflows into Spain, Greece, Italy and Portugal, the researchers extended their investigation to a larger panel of countries, with a view to widening their sample and confirming or disconfirming the link between a current account surplus and the deterioration of a country's institutions. On the basis of available data,

Based on the paper *Institutional Quality and Capital Inflows: Evidence and Theory* by Édouard Challe, Jose Ignacio Lopez and Eric Mengus, and on an interview with Édouard Challe.

Édouard Challe is a macroeconomist, a CNRS director of research at CREST (Centre de Recherche en Économie et Statistique) and a professor at the École Polytechnique. He has also taught at the universities of Paris Nanterre, Paris Dauphine, Cambridge and Columbia. His research focuses on speculative bubbles, precautionary saving behaviour, and macroeconomic policy.

Methodology

The researchers carried out a theoretical and empirical analysis to identify the systematic links between the deterioration of institutions and a country's current account. They used econometric panel techniques, while seeking to minimize the classic problems of endogeneity and reverse causality. They then combined a soft budget syndrome model with an open economy model – for the first time in the academic literature.

they were able to analyse 95 countries worldwide. "Our econometric results show that persistent capital inflows into a given country are regularly followed by the deterioration of its institutions," Édouard Challe says. However, the causal relationship goes one way only, in that poor institutions do not lead to a massive inflow of capital.

RELAXATION OF FINANCIAL CONSTRAINTS IS NOT NECESSARILY A GOOD SIGNAL

As well as considering the empirical evidence, the researchers developed their theoretical thinking by drawing on micro-economics and the concept of the "soft budget constraint syndrome". "This theory, developed by the Hungarian economist Janos Kornai in 1979, accounts for the inability of a socialist state not to save a public company from bankruptcy, even though it has already suffered an outright loss on the invested funds. The theory was then extended to developed countries, in which the state has the power to rescue companies. This situation is a well-known commitment problem in microeconomics," says Édouard Challe. "We revisited this theory, in which the budget constraint of a country is relaxed, and applied it to an open economy model receiving inflows of capital – the first time in the academic literature that this has been done."
Specifically, the model incorporates the notion of extractive projects, defined as projects that benefit only their owners or initiators, while at the same they require public funding. "These projects are inefficient for society. We assume that if a country has a large number of such projects, the quality of its institutions is poor. So we used this as an indicator in our model for measuring the quality of institutions," Édouard Challe says.

LOW INTEREST RATES ENCOURAGE RISK TAKING

Using this theoretical approach, the researchers were able to confirm the empirical evidence, which shows that massive capital inflows into a country lead to the deterioration of its institutions. This institutional deterioration is explained by the soft budget constraint syndrome, which encourages states to protect companies or projects that are of no benefit to society. Put plainly, when external financing conditions are favourable, especially with low interest rates, rescues of projects that are unprofitable for society (i.e. extractive projects) are less costly, thereby exacerbating the soft budget constraint syndrome. Project promoters are thus encouraged to take risks, counting on the fact that the state will come to their rescue in the event of difficulty. And in turn, the state is less inclined to improve the quality of its institutions. "This situation is thus doubly unsatisfactory in that both private and public debt soar," Édouard Challe says. In a global economy characterized by massive indebtedness, especially in southern Europe, these new findings provide insight and guidance for explaining the links between institutional quality and a country's current account. Food for thought for policymakers!

Key points

- The quality of institutions in southern European countries (Spain, Greece, Italy and Portugal) deteriorated during the run-up to the introduction of the euro. This deterioration is associated with massive capital inflows into the countries concerned.
- The phenomenon of institutional deterioration correlated with the massive inflows of capital has been verified on a large sample of countries worldwide.
- Institutional deterioration is explained by the "soft budget constraint syndrome", whereby states are encouraged to safeguard companies or projects that are not profitable for society.

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