



Role of Global Economy and Accounting Impacts of Climate Change

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ABSTRACT

The idea that transparency promotes well-functioning capital markets. This is particularly true when it comes to the urgent goal of reducing global greenhouse gas emissions to prevent the devastating impacts of climate change. For companies, those impacts include both physical risks, including the risk that facilities will be destroyed by fire or flood, and risks related to the global transition to a low-carbon economy. That transition may involve extensive policy, legal, technology, and market changes, each with associated risks. For example, policy actions to shift from fossil fuels to green energy and transformative technological innovations, such as electric vehicles and carbon-free grids, may pose financial, liability, competitive, and reputational risks for companies. More companies of the climate-related risks associated with their business, including their emissions, helps reduce the cost of capital needed to fund their own plans, whether they are leaders in the transformation or just trying to ensure their businesses and products remain relevant and viable in the future. Disclosure also facilitates efficient allocation of capital to companies that are best positioned to transition to low-carbon business models. And it gives the providers of capital—investors and financial institutions—the information they need to hold managers accountable for meeting goals.

Key Words:

- Low-carbon economy
- Technology
- Market Changes

I. INTRODUCTION

Because climate matters may have an impact on a company's financial reports, it is critically important that climate-related disclosure be provided in a document that auditors are at least charged to read, so that they can consider whether the financial statements are missing key information that could

bear on whether they are fairly presented and free of material misstatement. Equally important, investors—in other words, capital markets—are missing out on the immense benefits of consistent and reliable measurement of climate-related impacts on and by companies. High-quality disclosure that reduces information asymmetries between the providers and users of capital improves the efficiency of capital allocation, reduces the cost of that capital, and boosts investment. This synergistic effect of information disclosure in well-functioning capital markets is needed now more than ever to weather the extreme disruption of the energy transition that has already begun. The current approach to climate disclosure is instead costly and ineffectual, and it thwarts investors' ability to hold managers accountable for reducing emissions and managing climate-related risks. Many banks have made their own climate-related commitments to limit financed emissions—that is, emissions by companies and products associated with the banks' portfolios. As a result, poor or misleading emissions reporting will increasingly limit companies' access to both short- and long-term credit at these banks. Investors are entitled to know that so they can factor such constraints into their own forecasts of future cash flows to decide whether to buy, sell, or hold. Moreover, by allowing companies to treat emissions as costless, global economy and society, as well as the environment. In practical terms, investors have no way to discern what portion of earnings is attributable to good management of the company's assets as opposed to an unbounded opportunity to push costs off corporate accounts and onto society. The global sophisticated market, regulatory, and governance institutions can do better. The overall aggregate effect of climate change on economic growth will most likely be negative in the long run. Although there will be winners and losers from climate change at varying levels of warming, the impact of rising temperatures will be widespread, in part due to the financial, political and economic



integration of the world's economies. Global warming will primarily influence economic growth through damage to property and infrastructure, lost productivity, mass migration and security threats. The balance between winners and losers turns increasingly negative as temperatures rise so improve the quality of accounting, which improves the flow of capital to the right places in the economy and facilitates economic growth, you must have an environment that includes scrutiny by corporate regulators.

Role of Accounting

The purpose of accounting is to communicate an organization's financial position to company managers, investors, banks, and the government. Accounting provides a system of rules and principles that prescribe the format and content of financial statements. Through this consistent reporting, a company's managers and investors can assess the financial health of the firm. Historically, countries have followed different accounting standards. If different accounting standards are used, however, it's difficult for investors or lenders to compare two companies or determine their financial condition. US firms and any listed on a US stock exchange must prepare financial statements in accordance with the US Financial Accounting Standards Board (FASB) standards, which are known as generally accepted accounting principles (GAAP). Firms based in the European Union (EU) follow standards adopted by the International Accounting Standards Board (IASB) known as international financial reporting standards (IFRS). Over one hundred nations have adopted or permit companies to use IFRS to report their financial results. The United States is moving toward adopting IFRS but hasn't committed to a time frame. The FASB and IASB are working on harmonizing the two accounting standards. The three main advantages of a single set of international accounting standards are

- (1) an increased comparability between firms, which reduces investor risk and facilitates cross-border financing and investment;
- (2) a reduction in the cost of preparing consolidated financial statements for multinational firms; and
- (3) the improved reliability and credibility of financial reports.

Role of Global Economy

The global economy refers to the interconnected worldwide economic activities that take place between multiple countries. These economic activities can have either a positive or negative

impact on the countries involved. The global economy comprises several characteristics, such as:

- **Globalisation:** Globalisation describes a process by which national and regional economies, societies, and cultures have become integrated through the global network of trade, communication, immigration, and transportation. These developments led to the advent of the global economy. Due to the global economy and globalisation, domestic economies have become cohesive, leading to an improvement in their performances.

- **International trade:** International trade is considered to be an impact of globalisation. It refers to the exchange of goods and services between different countries, and it has also helped countries to specialise in products which they have a comparative advantage in. This is an economic theory that refers to an economy's ability to produce goods and services at a lower opportunity cost than its trade partners.

- **International finance:** Money can be transferred at a faster rate between countries compared to goods, services, and people; making international finance one of the primary features of a global economy. International finance consists of topics like currency exchange rates and monetary policy.

- **Global investment:** This refers to an investment strategy that is not constrained by geographical boundaries. Global investment mainly takes place via foreign direct investment (FDI).

The Impacts of climate changes

The assessment of potential impacts of climate change is progressing from taxonomies and enumeration of the magnitude of potential direct effects on individuals, societies, species, and ecosystems according to a limited number of metrics toward a more integrated approach that also encompasses the vast range of human response to experience and risk. Recent advances are both conceptual and methodological, and include analysis of some consequences of climate change that were heretofore intractable. In this article, I review a selection of these developments and represent them through a handful of illustrative cases. A key characteristic of the emerging areas of interest is a focus on understanding how human responses to direct impacts of climate change may cause important indirect and sometimes distant impacts. This realization underscores the need to develop integrated approaches for assessing and modeling impacts in an evolving socioeconomic and policy context.



Recent analyses of the possible adverse effects of climate change on agriculture in developing countries have raised food security concerns, especially for farm households whose crop productivity is expected to fall. The present study uses the GTAP global economy-wide model to capture at the same time the expected positive effects on temperate zone crop productivity, which will more or less offset the upward pressure on farm product prices from yield falls in developing countries. Also modelled is an expected adverse effect of higher temperatures and humidity on the productivity of unskilled workers in the tropics, but since they work in nonfarm as well as farm activities the net effect of that shock on agriculture's competitiveness is an empirical matter. The results suggest there may be less cause for concern over food security than some earlier studies indicated, but the degrees of uncertainty involved in such modelling are sufficient to warrant a precautionary approach.

National greenhouse-gas accounting should reflect how countries' policies and behaviours affect global emissions. Actions that contribute to reduced global emissions should be credited, and actions that increase them should be penalized. This is essential if accounting is to serve as accurate guidance for climate policy. Yet this principle is not satisfied by the two most common accounting methods. Production-based accounting used under the Kyoto Protocol does not account for carbon leakage—the phenomenon of countries reducing their domestic emissions by shifting carbon-intensive production abroad. Consumption-based accounting (also called carbon foot printing) does not credit countries for cleaning up their export industries, and it also punishes some types of trade that could contribute to more carbon efficient production worldwide. We propose an improvement to consumption-based carbon accounting that takes technology differences in export sectors into account and thereby tends to more correctly reflect how national policy changes affect total global emissions. We also present empirical results showing how this new measure redraws the global emissions map.

II. CONCLUSION

So role of global economy and accounting impacts of climate change for Low-carbon economy is recognized as an effective way and inevitable choice of solving current climate change problem in order to reduce greenhouse gas emissions. In the market economy, carbon emissions quantity and carbon emissions right become a "scarce commodity", carbon emissions trading has developed rapidly. In global level, there is lack of relevant

accounting standard to regulate the carbon emissions of the accounting recognition and measurement. This paper stated that carbon emissions should be recognized as intangible asset, respectively, at historical cost and fair value of the mixed measurement model for the initial measurement and subsequent measurement.

In contrast to the existing literature we account for cross-sectional dependence and technology heterogeneity. We find no significant impact of climate change on agricultural production in high income countries, but significant adverse effects in middle and low income countries. These adverse effects include a moderate negative impact of increases in temperature on agricultural output and for low income countries also negative effects of reductions in precipitation and of increases in the frequency of droughts. The latter two effects are particularly strong in Sub-Sahara Africa where low-tech rain-fed agriculture with very limited climate change adjustment capacities dominates. Thus, our findings reinforce the importance of proper adaptation strategies to climate change considering heterogeneous production technologies across countries.

This study aims to advance understanding of the potential consequences of global climate change by examining the overall effect on the global economy of predicted impacts in key market activities that are likely to be particularly sensitive to future climate trends. These activities include crop agriculture and forestry, energy services related to heating and cooling, commercial water supply, and the protection of property and assets in coastal regions. Also considered are the effects on livestock and commercial fisheries and the costs related to increased storm, flood and hurricane activity. Finally, the analysis accounts for population-based changes in labor supply and consumer demand due to climate-induced mortality and morbidity. Impacts in each of these areas were modeled to estimate their aggregate effect on national measures of economic performance and welfare, including gross domestic product (GDP), consumption, investment, labor supply, capital stock and leisure.

Investors and capital markets can only price and manage climate-related financial risks and opportunities if they have access to consistent, comparable, and reliable information impact of the climate crisis on companies and the impacts of companies on the climate crisis. Doing so will help companies, investors, regulators, and policymakers drive a successful transition to a net-zero economy idea that rules that require specific disclosures are bad. It does not have to be this way. The regulatory



infrastructure to use transparency to give investors and markets the information needed to manage risks is already in place. It just needs to be revitalized. The accounting and global economy has all the tools it needs—including its own long-standing rules, guidance, and enforcement mechanisms as well as accounting standards and independent, third-party assurance—to lay out the map and guardrails for corporate disclosures that will both protect investors and let capital markets discipline and enforce risk management.

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