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Erasmus Platform for Sustainable Value Creation

Working paper
The impact economy
Balancing profit and impact

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Executive summary

Society faces several challenges, both on the social and on the environmental front. The answers to these challenges are summarised in the United Nations Sustainable Development Goals (SDGs). The SDGs form the global strategy to promote sustainable development, which aims for a dignified life for current and future generations. As such, the SDGs are an agenda for all to act on: governments, companies and citizens.

The impact economy as a new system

The choice of governance for the economy and for the corporate sector cannot be studied in isolation. Corporate governance must fit within the broader economic system to be successful. Therefore, this paper introduces the impact economy. In this economic system, the government produces the classical public goods, while the government and companies care jointly about the common good of sustainable development. In the impact economy, taking a broad approach in government policymaking and in corporate decision-making covering all stakeholders is the defining criterion. Institutions in an impact economy focus on the long-term and emphasise multiple value creation.

Channels that could link economic and corporate social behaviour

1. **The legal channel**: The origin of the legal system in a country is an indication of the discretion that company executives and asset owners have to make decisions. Empirical evidence indicates that civil-law countries have higher levels of CSR than common-law countries, with very low levels for socialist-law countries.
2. **Taxation policies**: Only 20 percent of global carbon emissions are currently covered by a carbon price and less than 5 percent of those are currently priced at levels consistent with reaching the temperature goals of the Paris Agreement.
3. **Culture and values**: A country's post-materialist values are found to be more important than its wealth (GDP per capita) in explaining the level of CSR. In other words, the level of CSR investment of companies depends more on a population's willingness than on its means.

Empowering companies to deliver both profit and impact

The UN SDGs provide a global strategy, which has to be further specified at the national and subnational level. In the early stages, however, the private risk-return trade-off might not work properly, while the societal risk-return does work. The long-term viability of transition initiatives can therefore be assessed, with a potential need for short or intermediate-term concessional finance.

However, there are a number of challenges. It is often more expensive to undo the consequences of a decision with negative externalities than to prevent it. Moreover, asymmetric information between company insiders and outsiders means that externalities cannot perfectly be addressed in advance by external rules and taxes. This is due to unforeseen circumstances, increasing globalisation and the fact that companies control most of the information about themselves.

Nonetheless, the better a company's strategy anticipates the importance of sustainability issues, the more likely the company is to be successful both in long-term value creation and in making the transition to a more sustainable economy.

Alignment of corporate governance to the impact economy

For businesses, defining their purpose or mission is the starting point. To enhance effectiveness, it is important that a company's corporate governance reflects the financial, social and environmental elements of the company's purpose. In order to deliver on the stated purpose, the company's governance, strategy, business model, accounting system and financial reporting must be aligned with this purpose.

Furthermore, it is essential that the purpose of companies is anchored in corporate law. This allows companies to state their purpose and to establish their commitments to different parties. Corporate law could grant these parties access to information about the performance of the company regarding their interests and rights of representation in relevant decision-making processes, improving the alignment between parties.

A stewardship role for the financial sector

As the financier of the corporate sector, the financial sector can fulfil a stewardship role to steer companies towards sustainable business practices. The financial sector can do this through its allocation and monitoring roles, by assisting in the selection of companies that pursue long-term value creation. Choosing to finance sustainable companies and projects, financial institutions can accelerate the transition to an impact economy.

In terms of monitoring their investments, investors can also influence the companies in which they invest. Investors thus have a powerful role in controlling and directing corporate boards. Fortunately, a rising trend in sustainable investment is engagement to steer companies towards sustainable business practices.

The impact economy as a more balanced system

The impact economy model is well-positioned to find a balance with appropriate achievements across the economic, social and environmental pillars. In the impact economy model, the steering of the economy moves from stimulating GDP to enhancing broad welfare, which includes well-being and sustainability. Institutional innovations, such as putting purpose into corporate law, requiring integrated reporting and stimulating engagement by the financial sector, can encourage companies to adopt sustainable business practices.

In the end, the financial, social and environmental dimensions should all three become focal points and be properly balanced by governments and companies in the pursuit of long-term sustainable development. In order to do this, firms have to question and redefine their purpose, to align with the need to maximise integrated value over mere financial value.

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1 Abstract

How can governments and companies be jointly empowered to have a positive impact on the sustainable development goals? The current economic system is largely geared towards increasing economic growth. But this could come at the expense of rising social inequality and environmental degradation.

This paper examines the link between economic system outcomes and corporate sustainability outcomes. We provide evidence that governments and companies can reinforce each other in their pursuit of sustainable development. Sustainable development is based on three pillars: economic, social and environmental. These pillars should be assessed and balanced in an integrated way. An impact economy, in which governments and companies balance profit and impact, is best placed to achieve the sustainable development goals.

2 Introduction

Society faces several challenges both on the social front (eg inclusiveness, poverty, gender equality and human rights) and on the environmental front (eg climate change, biodiversity loss, natural food production and fresh water shortages). The answers to these challenges are summarised in the United Nations Sustainable Development Goals (SDGs) (UN, 2015). The SDGs form the global strategy to promote sustainable development, which aims for a dignified life for current and future generations.

The SDGs are an agenda for all to act on: governments, companies and citizens. But the academic and policy literature separates the actors. Some promote a broader role for government (Stiglitz, 2009; Stern, 2018; Mazzucato, 2018), while others promote the broader responsibility of companies (Mayer, 2018; Edmans, 2020). Each group uses its own language and concepts for the common good of sustainable development. Stiglitz *et al* (2018) promoted a framework of indicators to measure current and future well-being, which encompass material conditions, quality of life and preservation of natural resources. Schoenmaker and Schramade (2019) suggested that companies should be purpose driven and pursue long-term value creation, which integrates financial, social and environmental value.

This paper examines how governments and companies can be jointly empowered to have a positive impact in terms of achieving the SDGs. The current economic system, which is largely geared towards maximising economic growth, might hold companies back in their attempts to balance profit and impact. For business to be purpose driven, broader change of the governance of the economic system (including institutions with long-term orientations) is necessary. The central premise of this paper is that the choice of governance for the economy and for the corporate sector cannot be studied in isolation (Figure 1). Corporate governance must fit within the broader economic system to be successful. This paper investigates the link between economic and corporate governance.

FIGURE 1: STYLISED GOVERNANCE MODEL

Source: Bruegel

In this paper, we provide a broad classification of economic systems and discuss welfare beyond GDP (Stiglitz, 2009). The choice of economic system appears to be linked to corporate sustainability outcomes. The market economy is capable of delivering economic growth and profits, but less capable of providing social equality and environmental preservation. The state economy produces public and private goods, but at the cost of efficiency, individual development and environmental preservation. This paper introduces the impact economy, which takes the middle ground. The government produces the classical public goods, while the government and companies care jointly about the common good of sustainable development. The impact economy model is well-positioned to find an appropriate balance across all three pillars: economic, social and environmental. This translates into higher SDG scores at country level and higher CSR (corporate social responsibility) scores at firm level. The market and state economy models score lower on the overall SDGs and on the separate social and environmental aspects.

Table 1 outlines the contours of the impact economy. The steering of the economy moves from stimulating GDP to enhancing broad welfare, which includes well-being and sustainability. Companies transform from profit-maximising entities into purpose-driven organisations. Importantly, decision-making is no longer based on economic and financial factors only, but also on social and environmental factors. The defining criterion of the impact economy is taking a broad approach in government policymaking (spending, taxation and regulation of economic, social and environmental issues) and in corporate decision-making covering all stakeholders (shareholders, employees, consumers, society and environment). The institutions in an impact economy are geared towards the common good and multiple value creation (ie economic, social and environmental value) and have long-term orientations.

TABLE 1: CONTOURS OF THE IMPACT ECONOMY

Aspect	Current paradigm	New paradigm
Objective • **Economy** • **Corporate**	• Stimulating GDP growth • Profit maximisation	• Broad welfare • Purpose driven
Decision-making • **Economy** • **Corporate**	• Public good based on fiscal and economic indicators • NPV based on financial factors (Max FV)	• Public good based on fiscal, economic, social and environmental indicators • NPV based on integrated value (Max IV = FV + SV + EV)
Control • **Economy** • **Corporate**	• Parliament • Shareholders	• Parliament • Stakeholders
Reporting • **Economy** • **Corporate**	• Budget • Financial report	• Well-being budget • Integrated report

Note: NPV = Net Present Value, IV = Integrated Value, FV = Financial Value, SV = Social Value, EV = Environmental Value.
Source: Bruegel

New Zealand, which is often a pioneer of innovation (for example, with the introduction of inflation targeting in the 1990s), is the first and only country so far to publish a well-being budget. The New Zealand well-being budget takes a longer-term view and balances the need to grow the economy, create jobs, balance the books, and look after the people and the environment. Some leading companies have also started to publish integrated reports, showing how they balance profit and impact.

The central message of this paper is that sustainable growth is the only growth that serves society in the long-term. Anything else will be ultimately self-defeating. If we want to foster sustainable development built on social inclusion and environmental preservation, we need to move from maximising GDP and profit to balancing welfare/profit and impact[1]. This paper shows how governments fostering broad welfare and purpose-driven companies can generate positive impact. The financial sector can fulfil a stewardship role by steering companies towards sustainable business practices. Institutional investors, in particular pension funds, are leading the move to sustainable investment.

1 This is not an argument for degrowth (see, for example, Kallis et al, 2018). Our proposal is that all three pillars (growth/profit, social and environmental) should become focal points and properly balanced by governments and companies.

3 Economic systems

This section provides a typology of economic systems and sketches the performance of the main economic systems on key economic, social and environmental indicators.

3.1 Typology of economic systems

The economic system, responsible for the production of public and private goods in a country, can be organised in various ways. We provide a high-level analysis of the three main economic systems for comparative purposes. Gregory and Stuart (2013) provide a more detailed and nuanced classification of economic systems.

The typology starts with the market economy, in which the government is responsible for public goods (ie goods that are non-excludable and non-rival) and sets the conditions for economic growth (narrow GDP). Private companies produce and sell private goods on the market without regard to social or environmental externalities. Companies are run for the private benefit of their shareholders, which we classify as the shareholder model. The common good is the exclusive domain of the government. Another main economic system is the state economy, in which the government ('the state') is all powerful and is responsible for producing public and private goods. While companies may produce private goods, they are state-owned. They are steered by the state for the common good, but often at the cost of efficiency and individual initiative.

The impact economy takes the middle ground. The concept of impact economy aims to balance welfare/profit and impact (as defined by the SDGs) and is a modern-day version of the *Soziale Marktwirtschaft* introduced by Adenauer in the 1950s and the 'Coordinated Market Economy' of Kopstein and Lichbach (2005). More recent versions have highlighted the common-good feature of the economy (Scharmer and Kaufer, 2013; Felber and Hagelberg, 2017). While the government still produces the classical public goods, such as justice and defence, the government and companies jointly care for the other public goods directed at the common good of sustainable development, including clean air, equal treatment and social equality. In this model, the government aims to improve broad welfare, which contains both material well-being (production of goods) and immaterial well-being (eg health, education and environment), at present and in the future (Stiglitz, 2009; Hoekstra, 2019). Companies are run for profit to promote entrepreneurship and efficiency. They also aim for a positive impact on society and environment (see section 4). These companies integrate profit and impact in their pursuit of long-term value creation (Mayer, 2018; Schoenmaker and Schramade, 2019; Edmans, 2020).

While most countries adopt a hybrid model containing elements of the main economic systems, we attempt to classify the main economic blocs in geo-political terms. The United States is an example of the market economy with a strong focus on maximising production and consumption (reflected in a high GDP per capita), but also with excesses such as major inequalities and environmental degradation. China is an example of the state economy (though it has introduced some elements of the market economy) with economic inefficiencies, environmental degradation and human right violations. While China, as an emerging market economy, is catching up through high economic growth, the solvency and efficiency of state-owned enterprises and banks are questionable and the interests of the state override the interests of individuals. Europe with its social market economy is more societal-oriented, but less dynamic and innovative in economic terms. Europe's societal orientation is not only supported by social policies, but also environmental policies, such as the European Green Deal. Europe is thus close to the envisaged impact economy model, which supports the common good and multiple value creation.

It should be stressed that the three major economic blocs do not exactly fit into our typology. We only suggest that the United States comes close to the market economy model, China to the state economy model and Europe to the impact economy model.

3.2 Performance economic systems

As a follow-up to the Stiglitz report on broad welfare (Stiglitz, 2009), Stiglitz *et al* (2018) developed a detailed framework of indicators to measure current and future well-being, encompassing material conditions, quality of life and preservation of natural resources. The statistics for this detailed assessment are not available on a standardised basis, nor are they available for all countries. Hoekstra (2019) noted that several methods to measure broad GDP have been developed. To accelerate acceptance of broad GDP, he proposed to create a multidisciplinary community for replacing GDP by 2030. This new community must find a common language and common practices in order to supersede the current macroeconomic community centred around GDP.

As we are only interested in a high-level comparison of the performance of the main economic systems, we start with the SDG index, which aggregates performance across the 17 SDGs and can be seen as an aggregate indicator of societal performance (Sachs *et al*, 2019). Next, we provide key indicators on the three broad pillars (economic, social and environmental) relevant for achieving the SDGs. For each pillar, we show two to three of the most important indicators. The key indicator for economic strength is GDP. We take the level (GDP per capita adjusted for purchasing power parity) as well as the annual change (GDP growth). As we are interested in the structural features of economic systems, we calculate a 5-year average of GDP growth in line with the length of the average NBER business cycle since 1945 (NBER). For the social pillar, we take key indicators of income inequality (GINI index), gender inequality (gender gap) and human rights.

Other often-used social factors are health and education, but these are highly dependent on a country's relative wealth, which we already measure with GDP per capita. On the environmental front, we use consumption-based carbon emissions and material footprint per capita. Using material footprint is one way of incorporating other ecological aspects, as material extraction from terrestrial and marine ecosystems has an impact on land-use change and biodiversity loss (Hickel, 2020).

To assess the conditions for creating broad welfare, we look at the competitiveness of the economy, the size of the government and the forest area as a percentage of the land area. We take the competitiveness indicator for markets (average of product, labour and financial markets), business dynamics and innovation capability from the World Economic Forum's Global Competitiveness Report (WEF, 2019). The tax-to-GDP ratio measures the share of the government in the economy, which enables social redistribution. The forest area is an indicator of the state of the ecological environment (Wang and Li, 2014).

Table 2 provides a high-level overview of the performance of the main economic systems for illustrative purposes. The overview starts with the aggregate SDG score, which balances economic, social and environmental goals. The European Union has the highest SDG score at 79.5 followed by the United States at 74.5 and China at 73.2. The European Union outperforms the other two blocks by 5 percentage points on the SDG index, which ranges from 59 to 85 (see Table A2 in the Appendix).

Turning to the separate pillars, the United States scores high on the economic (GDP per capita) and competitiveness indicators, but China is catching up with high economic growth. On the social indicators (income inequality, global gender and human rights), the European Union shows the best performance, followed by the United States and China. On the environmental indicators, China has the lowest carbon and material footprint, because of a lower GDP per capita. The consumption-based footprints are related to the level of consumption (proxied by GDP per capita) and the carbon and material intensity of that consumption. The United States has larger footprints than Europe.

As we are interested in the overall societal performance of the main economic blocs, we do not analyse synergies and trade-offs between the separate pillars[2]. Lima de Miranda and Snower (2020) also suggested a balanced dashboard to evaluating well-being. Table 2 indicates that the European Union achieves its societal goals better, at a higher tax rate used for public spending as well as redistribution.

2 Surveying the literature, Darvas and Wolff (2016) found, for example, that the empirical evidence for the impact of inequality on economic growth is inconclusive. Several papers have found that inequality reduces growth (eg Knowles, 2005; Ostry et al, 2014), while many others have concluded that inequality increases growth (eg Forbes, 2000; Halter et al, 2014).

TABLE 2: PERFORMANCE INDICATORS OF ECONOMIC SYSTEMS (2019)

Indicator	Economic system		
	Market (USA)	Impact (EU)	State (China)
Performance indicators			
0. SDG index (0 – 100 best)	74.5	79.5	73.2
1. Economic dimension			
GDP per capita PPP ($)	65,112	44,539	19,504
Real GDP growth (5-year average)	2.4%	2.2%	6.6%
2. Social dimension			
GINI index (0 - 100 unequal)	38.2	33.2	41.2
Global gender gap (0 - 1 parity)	0.72	0.76	0.68
Human rights (-3.8 - 5.4 better)	0.2	2.0	-1.3
3. Environmental dimension			
Carbon emissions per capita (metric tons)	22.8	11.9	6.7
Material footprint per capita (tons)	31.9	21.7	19.7
Conditions for creating broad welfare			
1. Competitiveness dimension			
Product, labour, financial markets (0 – 100 best)	79.2	68.0	63.9
Business dynamics (0 – 100 best)	84.2	70.9	66.4
Innovation capability (0 – 100 best)	84.1	68.9	64.8
2. Tax to GDP ratio	24.3%	40.3%	18.9%
3. Forest area (as % of land area)	33.9%	38.1%	22.4%

Notes: SDG index from Sustainable Development Report, GDP from IMF World Economic Outlook, GINI index from Standardised World Income Inequality Database, Gender gap from WEF Global Gender Report, Human Rights from OurWorldinData, CO2 emissions from Eora MRIO database, Material footprint from MaterialFlows.Net, Competitiveness from WEF Global Competitiveness Report, Tax-to-GDP ratio from OECD Revenue Statistics, Forest area from World Bank. EU figures are calculated as a weighted average of the EU28 countries with population or GDP as weight.
Source: Bruegel

4 Are economic and corporate social performance linked?

This section investigates the link between the organisation of the economy and corporate social responsibility. It analyses the relationship between economic and corporate social performance.

4.1 Linking economic systems to corporate social responsibility

Corporate social responsibility (CSR) is a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. The key element is that companies go beyond the legal or regulatory requirements of relevant markets and/or economies. Both governments and private companies are thus channels to provide public goods. Besley and Ghatak (2001) indicated that public goods provision has shifted from public to mixed public-private ownership, because of a retreat of public production.

There are various reasons for companies to engage in CSR. Kitzmueller and Shimshack (2012) identified three types of pressure that might discipline companies into certain social behaviour:

1. Markets: employees in labour markets and/or consumers in product markets;
2. Politics: NGOs or civil society in private politics and/or governments in public politics; and
3. Social norms: commonly accepted norms, views and values in a community.

Which channels could link economic and corporate social behaviour? The literature distinguishes, broadly speaking, three main channels. The first channel that determines CSR behaviour is the **legal channel**. Following the seminal work of La Porta *et al* (2008), Liang and Renneboog (2017) focused on the law and regulations and reported that the origin of the legal system (civil, common or socialist law) in the country where a firm is domiciled explains a significant portion of the heterogeneity of CSR behaviour among firms. The origin of the legal system in a country is an indication of the discretion that company executives and asset owners have to make decisions. The prime contrast is the *ex-ante* regulation found in French-type civil law and the *ex-post* litigation-heavy Anglo-Saxon common law. The empirical evidence indicates that civil-law countries have

higher levels of CSR than common-law countries, with very low levels for socialist-law countries.

The second channel relates to **taxation policies**. Economists prefer pricing externalities through a Pigouvian tax, which reflects the social costs of the damage. A Pigouvian tax incentivises companies to reduce their carbon emissions, which may in turn prompt a further improvement of their CSR practices. Stern (2008) argued for a carbon tax to guide the transition to a low-carbon economy. In a similar way, appropriate pricing of natural resources (virgin materials) helps to avoid depletion and provides an incentive for material savings and recycling. Only 20 percent of global carbon emissions are currently covered by a carbon price and less than 5 percent of those are currently priced at levels consistent with reaching the temperature goals of the Paris Agreement (World Bank, 2019).

The third channel relates to **culture and values** and is based on the seminal work of Inglehart (1990). Dyck *et al* (2019) showed that asset owners that are domiciled in a country with a high level of social norms have a positive influence on the CSR behaviour of foreign companies of which they own stock. Schoenmaker and Stevens (2020) explored whether the value dimension of materialism is a driving force of the differences in CSR performance among companies. Materialism measures the importance people place on wealth and possessions. Attaching more value to buying and having possessions could cause overconsumption and indicate self-importance. They found that CSR ratings are positively related to post-materialist values, such as freedom of speech, interpersonal relations and the environment. A country's post-materialist values are found to be more important than its wealth (GDP per capita) in explaining the level of CSR. The level of CSR investment of companies depends thus more on a population's willingness than on its means. The results have implications for corporate governance because post-materialist values are a proxy for the social mindedness of a country's citizens, both in personal and professional settings.

The three channels – legal origins, taxation and culture – are not mutually exclusive. Nevertheless, the lower CSR performance of companies in common-law countries found by Liang and Renneboog (2017) seems to be driven by the large number of US companies in the common-law group. United Kingdom corporates in the common-law group exhibit a higher level of CSR performance, which is closer to that of European civil-law countries (see Figure 1 and Table A2).

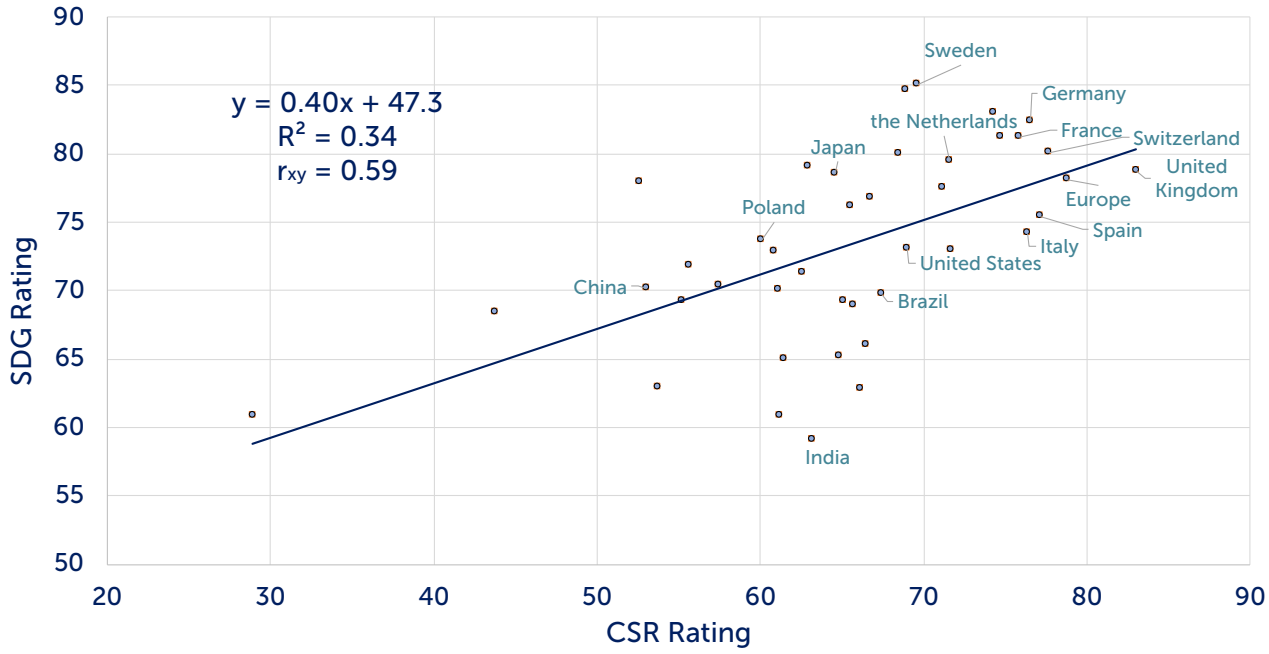
4.2 Empirical link between economic and corporate social performance

To analyse the relationship between the societal performance of economies and companies, we need broad indicators that cover the overall performance. At the country level, we take the earlier mentioned SDG index from the Sustainable Development Report that measures societal performance at the aggregate level (Sachs *et al*, 2019).

Corporate social responsibility (CSR) or environmental, social and governance (ESG) ratings first emerged in the 1980s as a service for investors to screen companies not purely on financial characteristics, but also on characteristics relating to social and environmental performance (Berg *et al*, 2019). Our CSR ratings are taken from Thomson Reuters ASSET4. We use the integrated CSR ratings, which includes three dimensions – environmental, social, and governance (see Table A1 in the Appendix). For completeness, we also report the separate environmental and social ratings. CSR ratings at the country level are constructed as a weighted average of company ratings in that country.

Figure 2 shows SDG and CSR ratings in a scatter diagram (Table A2 shows the ratings for individual countries). As expected, there is a positive relationship between the two. The Pearson correlation coefficient denoted by r_{xy} is 0.59. This relatively high correlation suggests that there is a strong relationship between SDG and CSR ratings. Further research is needed to investigate the causality between SDG and CSR ratings and underlying common factors.

FIGURE 2: RELATIONSHIP BETWEEN SDG AND CSR RATINGS (2018)



Note: CSR ratings from ASSET4 Thomson Reuters and SDG ratings from Sustainable Development Report. Europe is calculated as a weighted average of the EU28 countries with GDP as weight. Country CSR ratings are calculated as a weighted average of a country's companies with market value as weight.
Source: Bruegel

Table 3 provides an overview of SDG and CSR ratings for the main economic systems. Europe has the highest ratings and China the lowest, with the US in between. While all ratings are measured on a scale from 0 to 100, the differences in overall CSR ratings (from 53 to 79) are more pronounced than these in SDG ratings (from 70 to 78). For the individual country ratings on corporate social and environmental responsibility, the differences are even starker. Table 3 shows that

Europe scores even higher on the social and environmental ratings (84 respectively 88) than on the overall rating (79), while China is at the bottom at 52 and 60, and the US is in-between at 65 and 71. European companies thus perform much more strongly on the social and environmental fronts than their US and Chinese counterparts. This finding is consistent with the earlier message from Table 2 at the country level, where the European economy has a stronger performance on the social and environmental dimensions than the US and Chinese economies.

TABLE 3: SDG AND CSR RATINGS (2018)

Rating	Market (USA)	Impact (EU)	State (China)
SDG rating	73.0	78.1	70.1
CSR rating			
• **Overall rating**	69.0	78.8	53.0
• **Social rating**	65.2	83.5	52.0
• **Environmental rating**	70.8	88.2	59.5

Note: CSR ratings from ASSET4 Thomson Reuters and SDG ratings from Sustainable Development Report. EU figures are calculated as a weighted average of the EU28 countries with GDP as weight. Country CSR ratings are calculated as a weighted average of a country's companies with market value as weight.
Source: Bruegel

5 Empowering companies

While the government should set the policies for addressing social and environmental externalities, there is also a role for companies. This section explores how companies can be empowered to deliver both profit and impact. Long-term oriented institutions play an important role in fostering multiple value creation.

5.1 Governance in a new economic model

It is the role of governments to set the sustainability goals: determine where we need to go and what transitions are needed. The UN SDGs provide the global strategy (UN, 2015), which needs to be further specified at the national and subnational level. Governments should also set regulations and taxation to address social and environmental externalities. This includes determining at what level of administration the steps need to be taken. For example, carbon pricing is probably best tackled at the EU (or even global) level, while traffic congestion pricing is better done at the city level.

There is also a role for governments to engage the corporate and financial sectors in the earliest stages of development of technologies and business models. In those early stages the private risk-return trade-off might not work properly, while the societal risk-return does work. The long-term viability of transition initiatives can then be assessed, with a potential need for short or intermediate-term concessional finance. These early stages are the hardest, where government help and vision are needed (Mazzucato, 2018). The required government help is not only financial through co-funding or other incentives, but also coordination through developing a system vision and using its convening power by bringing parties together.

However, social and environmental externalities are not perfectly separable from production decisions (Hart and Zingales, 2017). This means that it is more expensive to undo the consequences of, for example, water pollution by a manufacturing firm than to prevent it in the first place. Moreover, asymmetric information between company insiders and outsiders means that externalities cannot perfectly be addressed in advance by external rules and taxes. Shapira and Zingales (2017) showed how a respected company, such as DuPont, knowingly caused environmental damage when disposing of a toxic chemical used in the making of Teflon in its West Virginia Plant. This case was recently turned into a legal thriller film called *Dark Waters*. The harmful pollution was a rational decision: under reasonable probabilities of detection, polluting was *ex-ante* optimal from the company's perspective, albeit a very harmful decision from a societal perspective. Shapira and Zingales (2017) examined why different

mechanisms of control – legal liability, regulation and reputation – all failed to deter socially harmful behaviour. One common reason for the failures of deterrence mechanisms is that the company controls most of the information and its release.

Another reason why externalities cannot be fully addressed is unforeseen circumstances, which are difficult to contract or regulate in advance (Grossman and Hart, 1986)[3]. If externalities are not perfectly addressed in advance by rules and taxes, there is ample space for economic actors to exert pressure on the regulatory, judicial and political system to avoid enforcement or to shape enforcement in their own interest (Zingales, 2017). Finally, globalisation makes regulation of externalities caused by multinational companies more difficult (Benabou and Tirole, 2010).

Companies that manage well their material sustainability issues, are more likely to adapt their business models, protect their competitive positions and grow their intangible assets (Schoenmaker and Schramade, 2019). The better their strategy anticipates the importance of sustainability issues, the more likely they are to be successful both in long-term value creation and in making the transition to a more sustainable economy. The move to sustainable business models requires companies not only to take care of the financial viability of their business model, but also to define and measure social benefits and environmental regeneration. They have to manage the company's integrated value, which integrates financial, social and environmental value.

Even more fundamentally, the purpose of the firm comes into question. As a company moves from simply maximising financial value to maximising integrated value, serious questions need to be asked on what the company wants to achieve, and where and how it can achieve the most.

5.2 Corporate governance

In the governance of an impact economy, there is an important role for institutions that foster the common good and multiple value creation. How can the government empower companies to behave responsibly? While finance textbooks suggest that companies are profit-maximising entities, leading business scholars, including Colin Mayer (2018) and Alex Edmans (2020), have argued that successful companies deliver purpose and profit. The basic idea is that successful companies are driven by purpose, which is the desire to serve a societal need. In the process of serving society, companies also generate profits for investors, salaries for employees and payments to suppliers. Profits are thus derived from purpose rather than fundamental in their own right.

3 One solution to unforeseen circumstances is public ownership, whereby the government has residual control rights. However, Besley and Ghatak (2001) argued that there are efficiency trade-offs between public and private ownership of public goods.

Emerging evidence shows that sustainable companies are more long-term oriented and have better financial performance (Eccles *et al*, 2014; Mayer, 2018; Schoenmaker and Schramade, 2019; Edmans, 2020). Nevertheless, there is also evidence that shareholders have historically over-discounted future dividends by 5 to 10 percent, indicating short-termism (Davies *et al*, 2014). Box 1 provides an example of a telecoms operator pursuing long-term value creation. This company sets long-term goals for all its stakeholders and balances these long-term goals to provide a solid footing for its business. The telecom operator's purpose, from which the long-term goals are derived, inspires all stakeholders to the common goal of connecting people through advanced technology.

It is crucial to anchor the purpose of companies in corporate law (Mayer, 2018). That allows companies to state their purpose and to establish their commitments to different parties. These commitments could go beyond the traditional groups of shareholders and directors and extend to employees, customers and communities. Corporate law could grant these parties access to information about the performance of the company regarding their interests and rights of representation in relevant decision-making processes. Further detail can be specified in corporate governance codes. Recent updates of the Dutch and UK corporate governance codes, for example, require companies to develop a view on long-term value creation by the company and to formulate a strategy in line with this.

It is left to companies to organise themselves and promote entrepreneurship for achieving profit and positive impact (Edmans, 2020). This also means decentralised organisation, where information on, and competition for, new impact ideas (ie innovation) emerges bottom-up in the economy. Companies are emerging that want to balance profit and impact. These companies enshrine financial and impact goals in their business charters and articles of incorporation. They form the framework the managing board has to operate within. Examples of such companies are the newly emerging benefit corporations. Benefit corporations have to state their social and private purposes and are obliged to report on how they contribute to their social and private purposes.

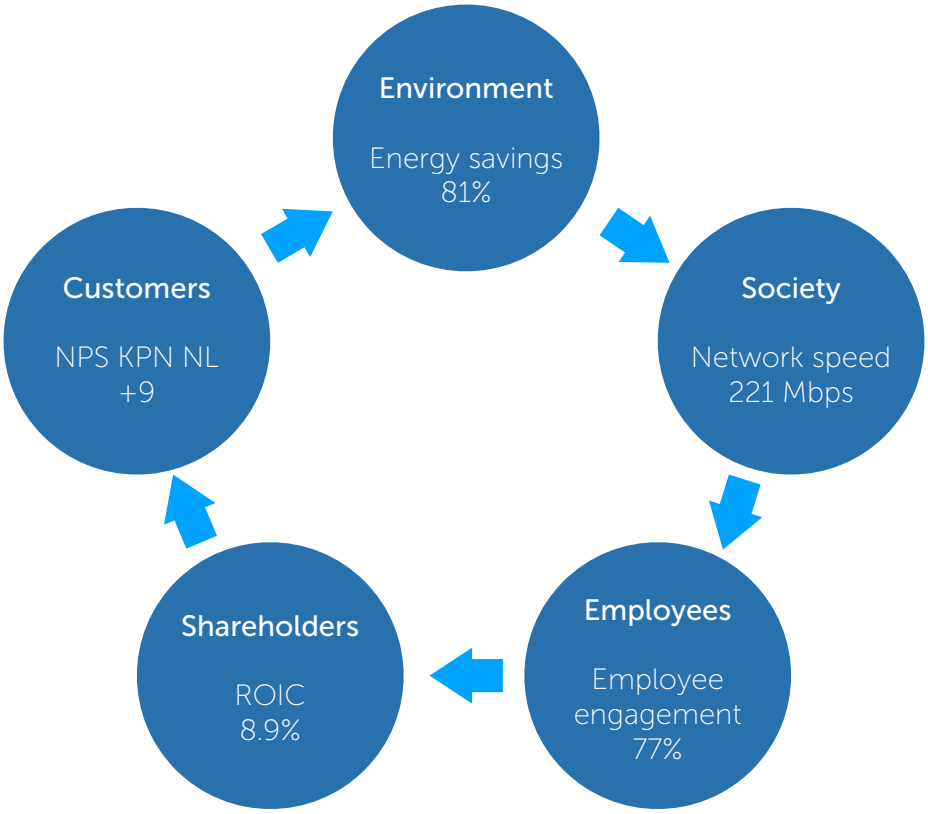
Defining the purpose or mission of the company is the starting point. To deliver on the stated purpose, the company's governance, strategy, business model, accounting system and financial reporting must be aligned with this purpose. On corporate governance, selection and appointment criteria for non-executive and executive directors should include a sustainability track record, competencies and mindset (de Reus, 2018). Executive pay should also be based on delivering on the company's societal key performance indicators. Executives can empower the company by centring decision-making throughout the company – from strategy, business model, accounting system to reporting – on the concept of integrated value, which combines financial, social and environmental value in a balanced way (Schoenmaker and Schramade, 2019).

BOX 1: LONG-TERM VALUE CREATION AT KPN

Dutch telecom operator KPN could maximise short-run return on invested capital (ROIC) by cutting operating costs (eg marketing costs for new customers) and capital investments (eg large investments in new network technology), which would look great for short-term minded shareholders. However, it would also effectively kill its business, as ROIC would soon enough drop sharply as market share and product margins would fall. To restore market share, KPN would have to spend more than the initial costs and investments needed to pursue its long-term strategic goals.

The company therefore manages on the basis of five goals: shareholders, customers, employees, society and environment. It has key performance indicators on all five and reports on each one, which should give a much better understanding of long-term value drivers than the old reporting system based on financial indicators. In particular, the Net Promoter Score (NPS) for customers is found to be very powerful. Figure 3 shows the importance of balancing the goals. This balanced approach puts KPN's business on a more solid and less volatile footing.

FIGURE 3: DELIVERING VALUE FOR ALL STAKEHOLDERS



Note: Environment is measured as energy savings by customers; society as download speed of broad band fixed at mega-bits per second (Mbps); employees as employee engagement; shareholders as return on invested capital (ROIC); and customers as net promoter score (NPS).
Source: KPN Integrated Annual Report 20

A major institutional advance would be to require integrated reporting by companies. Integrated reporting is about understanding how organisations create integrated value and how its activities affect the financial, social and natural capitals it relies upon for this. A promising development is the establishment of the IFRS Foundation working party on sustainability reporting. These sustainability standards would complement the international financial reporting standards (IFRS), which are issued by the International Accounting Standards Board.

The calculation of the integrated value makes a company's value visible to its stakeholders – shareholders, employees, customers, suppliers, society and environment. Some companies have started to report on financial, social and natural capitals in integrated reports (see, for example, KPN in Box 1), but that is still on a voluntary basis with non-harmonised standards.

5.3 Enhancing stewardship

As the financier of the corporate sector, the financial sector can fulfil a stewardship role to steer companies towards sustainable business practices. The financial sector can do this through its allocation and monitoring roles (Schoenmaker and Schramade, 2019). The allocation of funding to its most productive use is a key role of finance. Finance is therefore well positioned to assist in selecting companies that pursue long-term value creation. Finance plays this role at different levels. Banks, for example, define their lending strategies in terms of which sectors and projects are eligible for lending and which are not. Similarly, investment funds set their investment strategies, which direct in which assets the fund invests and in which assets it does not. The financial sector can thus play a leading role in the transition to an impact economy, based on inclusiveness and environmental preservation. If the financial sector chooses to finance sustainable companies and projects, they can accelerate the transition.

In terms of monitoring their investments, investors can also influence the companies in which they invest. Investors thus have a powerful role in controlling and directing corporate boards. The governance role also involves balancing the many interests of a corporation's stakeholders. A rising trend in sustainable investment is engagement to steer companies towards sustainable business practices. Large institutional investors, including investment funds, pension funds and insurers, are well placed to fulfil this stewardship role. Table 4 indicates that traditional institutional investors have jointly an equity stake of 58 percent in companies.

Emerging empirical evidence on proxy voting and engagement shows that the large US investment funds are more narrowly 'money conscious', voting with management and underinvesting in engagement and stewardship. By contrast, large US and Canadian pension funds support a more social-environmental orientation of companies and vote typically in favour of social and environmental resolutions at annual general meetings (Bolton *et al*, 2020). For

Europe, evidence indicates that institutional investors, in particular pension funds and investment funds, are active in coordinated engagements to influence firms on environmental and social issues. Investors form a syndicate with a lead investor and supporting investors, whereby the lead investor typically has a higher stake in the company and comes from the same country as the target company. Coordinated engagements appear effective in successfully achieving the stated engagement goals and subsequently improving target performance (Dimson *et al*, 2019). The large US investment funds, which also have a large presence in Europe, are absent in these coordinated engagements.

TABLE 4: SHARE OF INSTITUTIONAL INVESTORS IN EQUITY

Type of institutional investor	Amount (in US$ trillion)	Share in equity markets
Investment funds	24	41.1%
Investment funds (excl. pension funds/insurers)	11.2	19.1%
Pension funds and insurance companies	22.9	39.1%
Traditional institutional investors	34.1	58.2%
Sovereign wealth funds	3.3	5.6%
Hedge funds	0.9	1.6%
Alternative institutional investors	4.2	7.2%
Total institutional investors	38.3	65.4%

Note: Pension funds and insurers invest directly in equity and indirectly via investment funds. This indirect investment is deducted from the equity managed by investment funds to avoid double counting. As only data for institutional investors in developed countries is available, the share is calculated as a percentage of developed equity markets.
Source: Schoenmaker and Schramade (2019) based on OECD (2017) and SIFMA (2017)

While some large investors, such as pension funds, thus take a broader societal view, Ferreras (2017) and Rodrik (2020) argue that firms should be democratised. They propose that shareholders and workers should both be

represented on equal terms. However, this would still leave the environmental pillar (ie future generations) unrepresented. Effective corporate governance must include all three pillars. As discussed earlier, integrated reporting helps to make the societal value, including its financial, social and environmental components, visible to all interested parties.

Government policies could enhance the stewardship role of the financial sector. The EU's Action Plan on Sustainable Finance (European Commission, 2018) contains legal proposals to strengthen this stewardship role. The disclosure regulation[4] requires clarifying the fiduciary duty of institutional investors and their asset managers. Fiduciary duty sets out the responsibilities that financial institutions owe to their beneficiaries and clients. Clarified duties encompass key investment activities, including investment strategy, risk management, asset allocation, governance and stewardship. The clarified duty also requires that all participants in the investment chain pro-actively seek to understand the sustainability interests and preferences of their clients, members or beneficiaries (as applicable) and to provide clear disclosure of the effects, including the potential risks and benefits, of incorporating them into investment mandates and strategies.

These sustainability disclosures enable a dialogue between institutional investors and end-investors. Some large pension funds are already conducting surveys among their beneficiaries to learn about their sustainability preferences. By the same token, a beneficiary can raise sustainability concerns with the relevant institutional investor that is managing its investments.

4 Regulation EU/2019/2088 on sustainability–related disclosures in the financial services sector.

6 Conclusions

This paper provides a high-level overview of the main economic systems for the production of public and private goods. In the market economy, the government is exclusively responsible for public goods, while companies are producing private goods. The market economy is capable of delivering economic growth and profits, but at the expense of social inequality and economic degradation. By contrast, the state is ultimately responsible for producing public and private goods in the state economy. This comes at the cost of efficiency and individual development. The impact economy takes the middle ground. While the government produces the classical public goods, the government and companies care jointly about the common good of sustainable development. They do so by balancing profit and impact. Lima de Miranda and Snower (2020) also promote a balanced dashboard of economic, social and environmental indicators to evaluate current and future well-being.

It appears that the impact economy model is well-positioned to find that balance with appropriate achievements across all three pillars: economic, social and environmental. This is translated into higher SDG scores at country level and higher CSR scores at firm level. The market and state economy models achieve economic growth, but at the expense of far lower scores on the social and environmental pillars.

The challenge is to stay away from perceived trade-offs, for example, between growth and environmental protection or social inclusion (Kallis, 2018). The idea is that the growth/profit, social and environmental dimensions should all three become focal points and be properly balanced by governments and companies in the pursuit of long-term sustainable development.

In the impact economy model, the steering of the economy moves from stimulating GDP to enhancing broad welfare, which includes well-being and sustainability. Companies transform from profit-maximising entities into purpose-driven organisations. Decision-making by governments and companies is no longer based on economic and financial factors only, but also on social and environmental factors. The defining criterion of the impact economy is taking a broad approach in government policy-making and in corporate decision-making covering all three pillars. Institutional innovations, such as putting purpose into corporate law, requiring integrated reporting and stimulating engagement by the financial sector, can encourage companies to adopt sustainable business practices.

A transition to the impact economy model requires a change of mind set and new skills to understand the social and environmental pillars. Responsible education can help to build people's capacities to overcome motivational

challenges for sustainable action. Responsible economics, business and finance education aims to develop the capabilities of students to be future generators of sustainable value for society and business. Responsible education is also relevant for professionals who are already working in government and business.

Since the Industrial Revolution, economic and financial capital have been accumulated building on social and natural capital, bringing us (material) prosperity at the expense of rising social inequality and environmental degradation. It is now time to put economic and financial capital at the service of social and natural capital in order to deliver lasting prosperity for all.

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8 Appendices

SOURCE AND COMPOSITION CSR RATINGS

Several sustainability data providers measure corporate social responsibility (CSR) ratings, which are also called environmental, social and governance (ESG) ratings. The main datasets to assess CSR performance of companies are MSCI, Thomson Reuters' ASSET4 and Vigeo[5]. We choose the ASSET4 database because of its broad country coverage. Within the ASSET4 database, we use the ASSET4 integrated ratings, which includes three pillars – environmental, social, and governance. These integrated CSR ratings are aggregated across 10 indicators, which have various weights in the full rating. Table A1 shows the composition and weighting scheme of the integrated CSR ratings.

TABLE A1: COMPOSITION OF CSR RATINGS

Dimensions	Number of measures	Weight
Environmental		
Resource use	19	11%
Emissions	22	12%
Innovation	20	11%
Social		
Workforce	29	16%
Human Rights	8	4.5%
Community	14	8%
Product responsibility	12	7%
Governance		
Management	34	19%
Shareholders	12	7%
CSR strategy	8	4.5%

Source: ASSET4 from Thomson Reuters

5 CSR reporting by companies is still in its infancy. Moreover, rating agencies use different concepts of CSR performance. Nevertheless, Berg et al (2019) showed that differences between the CSR ratings of the five major rating agencies are decreasing. They found a correlation of 61 percent between their ratings.

SDG AND CSR RATINGS

The SDG index aggregates performance across the 17 SDGs (United Nations, 2015). The data is taken from the Sustainable Development Report (Sachs et al, 2019). The CSR ratings are from Thomson Reuters' ASSET4. Country CSR ratings are calculated as a weighted average of country's companies with market value as weight. Only countries with more than 10 company observations are included. Our dataset in Table A2 contains 40 countries. The figures for Europe are calculated as a weighted average of the available EU countries with GDP as weight.

TABLE A2: SDG AND CSR RATINGS AT COUNTRY LEVEL (2018 FIGURES)

Country	SDG rating	CSR rating		
		Integrated	Social	Environmental
India	59.1	63.2	75.4	78.2
Qatar	60.8	28.9	18.0	15.5
South Africa	60.8	61.2	68.9	69.7
Indonesia	62.8	66.1	81.6	72.6
Saudi Arabia	62.9	53.7	60.0	58.0
Philippines	65.0	61.5	67.7	75.0
Mexico	65.2	64.9	81.2	77.5
Turkey	66.0	66.5	79.0	81.2
Peru	68.4	43.8	30.9	34.7
Russia	68.9	65.7	76.8	71.2
United Arab Emirates	69.2	55.2	66.5	56.6
Thailand	69.2	65.1	85.9	77.7
Brazil	69.7	67.5	83.0	78.9
Malaysia	70.0	61.1	79.0	78.0
China	70.1	53.0	52.0	59.5
Argentina	70.3	57.5	56.2	58.7
Singapore	71.3	62.5	79.1	71.1
Israel	71.8	55.7	61.3	54.7
Chile	72.8	60.9	74.8	67.9
Australia	72.9	71.7	76.1	73.6
United States	73.0	69.0	65.2	70.7
Poland	73.7	60.0	73.6	76.0
Italy	74.2	76.4	87.6	86.3
Spain	75.4	77.1	90.3	90.2
Luxembourg	76.1	65.6	73.8	68.4
Canada	76.8	66.7	70.0	72.8
Ireland	77.5	71.2	83.5	83.0
New Zealand	77.9	52.6	48.4	54.3
Europe	78.1	78.8	83.5	88.2
Japan	78.5	64.5	74.9	80.9
United Kingdom	78.7	83.0	83.1	90.0
Belgium	79.0	62.9	72.8	83.4
Netherlands	79.5	71.6	82.2	88.0
Austria	80.0	68.4	78.6	78.6
Switzerland	80.1	77.6	85.1	89.5
Norway	81.2	74.7	80.0	78.2
France	81.2	75.8	89.1	91.2
Germany	82.3	76.5	84.8	87.1
Finland	83.0	74.3	85.6	92.3
Denmark	84.6	68.9	81.4	83.9
Sweden	85.0	69.6	77.0	80.8

Source: See Figure 1.