Soybean overlooked?
The investor case for deforestation-free soy

A white paper exploring regulatory risks from soy associated with deforestation

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Thanks to the support of:

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Contents

Foreword

We believe business risks from sourcing soy associated with deforestation are material; to date this has been underestimated by the market

As active investors we aim to integrate a wide range of environmental, social and governance risks and opportunities into our investment decisions. Climate change is one of these risks and arguably presents the greatest challenge faced by long term investors with the future impacts of climate change, under current pathways, suppressing economic growth and decreasing the value of the world's stock of manageable assets. Companies will be affected by physical and regulatory risks as well as by changes in the macro-economy affecting demand and supply fundamentals.

Deforestation is a significant source of CO_2 emissions and contributor to global warming. As deforestation rates in Brazil have been slowing, companies and their stakeholders turned their attention to palm oil related deforestation in Indonesia. As a result, we have seen significant efforts made by companies to mitigate palm oil related deforestation. Commitments have been made to support sustainable sourcing practices, demonstrated by the momentum behind RSPO certified palm oil and zero deforestation targets. The response from investors and companies is to be commended. However, whilst palm oil was under focus, the demand for soy (as livestock feed and food ingredient) has continued to increase, driving unsustainable land use change and illegal forest clearance in Brazil. In addition, the end of the Soy Moratorium in Brazil may heighten the risk of soy being associated with deforestation. Little attention has been paid to this trend but consumer goods companies are exposed to regulatory, reputational and consumer risks through their sourcing of soy, just as they were through palm oil sourcing.

This exposure is relevant to investors as the associated regulatory risk and potential disruption to supply could result in higher operating costs, lower margins and price volatility for investee companies. Some argue that restricted supply and increased soy prices could cause food price inflation. Companies may be able to pass through costs, depending on economic conditions and consumer demand, but not all cost increases can be passed along the value chain. There is little evidence that these issues are currently accounted for within company valuations. Going beyond the numbers, a company's explanation of these risks, its exposure to soy and management systems to mitigate this risk may also be an indicator for management quality and their ability to comply with stricter regulations, maintain security of supply and source alternatives.

We believe that the business risks associated with sourcing soy are just as material as risks in cattle, palm oil and timber sourcing given volumes sourced; but to date this has been underestimated by the market. Unsustainable production practices resulting in deforestation in the Amazon has been a catalyst for increasing regulation and increased government and NGO scrutiny. As investors, we encourage companies to take a proactive approach and increase transparency about their management of deforestation risk associated with soy to help investors make better investment decisions.

We welcome this report from CDP to help investors better understand this emerging risk.

Elly Irving
ESG Analyst at Schroders

Executive Summary

Investors are beginning to grapple with the business risks presented by producing or procuring commodities associated with deforestation (timber, palm oil, soy & cattle products).

Deforestation is not only an important contributor to global climate change but it also jeopardizes agricultural yields by causing local changes to climate. This creates a number of business risks, ranging from reputational risks to those driven by physical parameters and regulatory change.

Soy overlooked by companies:
CDP's data shows that deforestation risks associated with soy are being overlooked by companies, although the risks are similar to those presented by palm oil for which 96% of the market is now covered by zero deforestation commitments.

Brazilian soy & deforestation:
Brazilian soy has been heavily linked to deforestation and deforestation from soy production is only expected to increase again in the Amazon with the Soy Moratorium due to end in 2016. This is likely to cause an increase in business risks related to deforestation.

- Soy and cattle products accounted for 98% of deforestation in Brazil from 1995-2005;
- After almost a decade of decreasing deforestation rates, Brazil's deforestation is once again on the rise;
- Furthermore, soy production in Brazil is set to become more associated with deforestation again with the Soy Moratorium due to end, a voluntary initiative that effectively decoupled soy production in the Amazon from new deforestation;
- Increasing attention is also being paid to the deforestation occurring in the Cerrado where 60% of soy is grown.

37% of companies responding to CDP's forests program do not report on **soy** despite stating that they produce or use soy

Compared to **19%** of companies responding to CDP's forests program that do not report on **palm oil** despite stating that they produce or use palm oil

This paper looks at one set of deforestation risks associated with soy: regulatory risks

Across the commodities reported on through CDP, regulatory risks are often reported as the highest magnitude and most likely risks.

Soy supply & demand:
Given increasing demand, Brazilian soy is likely to have a permanent presence in company supply chains.

- Components of the soybean are used extensively for animal feed due to its high protein content, as well as in food, household and personal products.
- 80% of the world's soy supply comes from three countries in the world, one of which is Brazil. Brazil exports over half its soy – Brazilian soy is a common feature of many multi-national supply chains.
- Soy demand is rising and Brazil is expected to supply 40% of the world's increase in imports up to 2030; much of this is set to come at the cost of natural vegetation in the Amazon and Cerrado biomes.

Regulatory risks:
This paper explores some examples of soy regulatory risks associated with deforestation, including those from:

- Enforcement of new Brazilian Forest Code: how will the new Forest Code impact on companies given signs of increasing monitoring and enforcement?
- EU action on deforestation extended to soy: what would it mean for soy supply chains if the EU adopted some of the policy options put forward by the European Commission?
- International climate efforts result in stricter local land use policy: given the impact of Brazilian deforestation on global climate change, what might international efforts on Reducing Emissions from Deforestation and Degradation (REDD+) mean for soy?

Executive Summary

Potential company impacts:
The potential impacts from these regulatory risks are explored in relation to the common impacts reported to CDP:

- Increased operational costs;
- Reduction/disruption of supply; and
- Impact on license to operate.

Implications for investors:
With little visibility for investors on these risks, these potentially material considerations are unlikely to have been factored in to company valuations but there are solutions at hand.

- Certification schemes and equivalent approaches can reduce a number of interrelated risks, including those relating to deforestation.

Recommendations
Investors should:

1. Ensure that the companies in their portfolio are transparent on deforestation risks and risk mitigation through reporting through standardized systems such as CDP's forests program;
2. Engage companies on deforestation-free soy to ensure they understand the importance of mitigating those risks.

Key questions to ask companies in your portfolio:

- What value is at risk from soy linked to deforestation?
- What visibility do you have for soy impacts in your supply chain?
- How are you responding to the risks associated with deforestation and soy?

If you are a signatory to CDP's forests program, this data is being collected through our annual information request to companies (see Annex 1) and you can access it through CDP's investor portal. Also available to you are individual company feedback reports that assess companies alongside the best practice that is evolving.

Introduction

Palm oil's association with widespread deforestation in South East Asia and the business risks that brings has been a wake-up call for companies and investors alike. Now a market shift towards zero deforestation-free palm oil is well underway.

However, for a commodity widely used and understood to be having the same deforestation effects in South America, data from CDP's forests program reveals an important gap in corporate understanding of soy deforestation risk.

The production of soy has been an important driver of deforestation in Brazil, driving an arc of deforestation across the Amazon. In recent years a number of factors, including importantly the Soy Moratorium have helped to decouple its impact, at least in the Amazon region. However, with the end of the Soy Moratorium due in 2016 and increasing attention turning to the deforestation occurring in the Cerrado, the context for this paper is one whereby soy's association with deforestation in Brazil may increasingly present material business risks.

This white paper specifically begins to explore how soy supply chains may face risks from regulatory efforts to tackle deforestation over the next 5 years. Already, commodities associated with illegal forest clearance make their way into international supply chains for food, household and personal products, with illegal conversion for agriculture accounting for 49% of total tropical deforestation between 2000 and 2012[1].

As CDP's data reveals, many companies are not recognizing these risks which have the potential to impact operational costs, the production/supply of soy and companies' license to operate, to varying degrees along the supply chain. This is in the context of other threats to supply and growing demand for soy for livestock feed and biodiesel.

Companies' management of deforestation in their soy supply chains may need to be more closely considered by investors when valuing companies for inclusion in their portfolios.

> *Soy's association with deforestation in Brazil may increasingly present material business risks*

Demand for soy

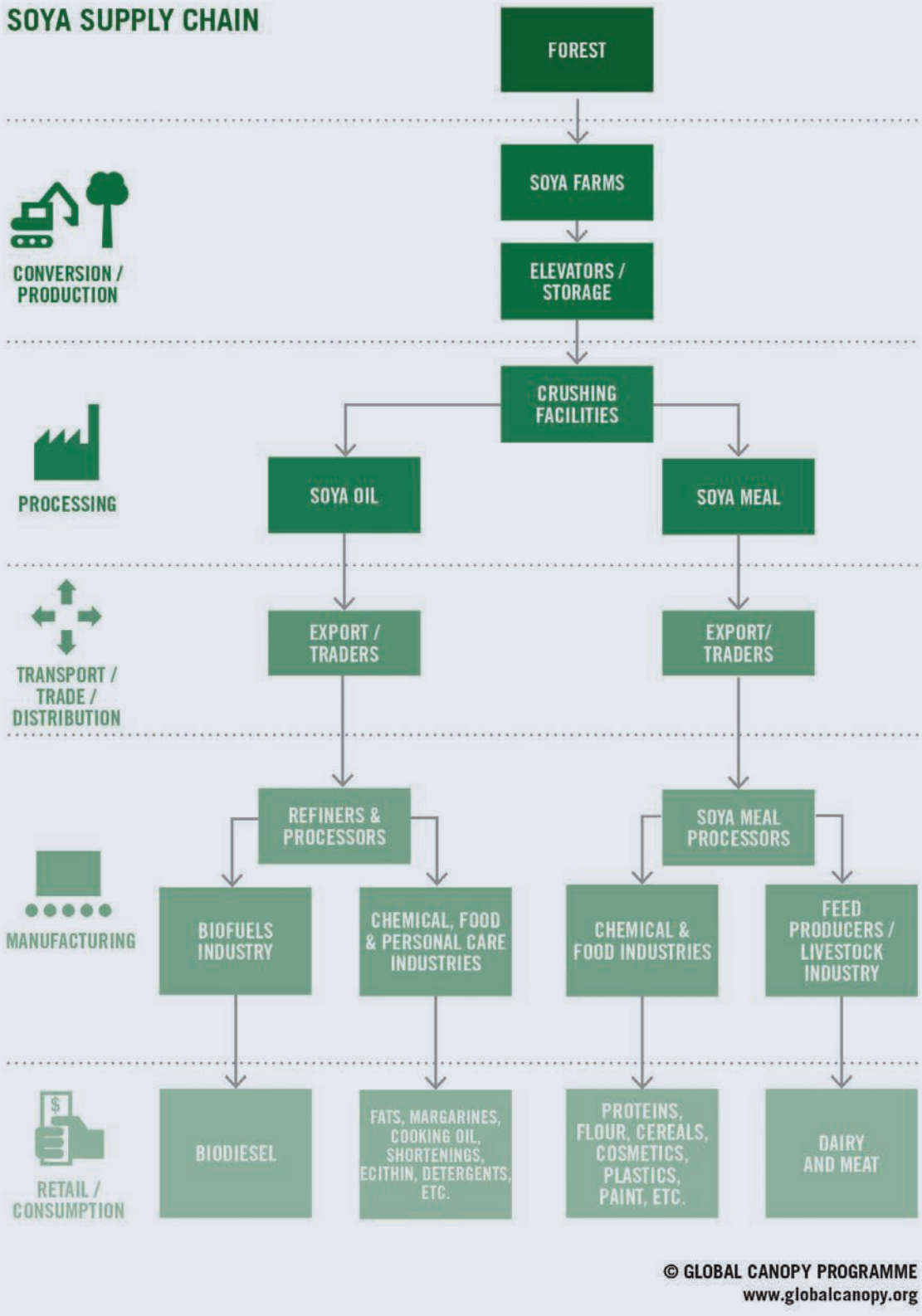
Soybeans provide one of our most efficient sources of protein, and is one of the few plants able to provide all eight amino acids essential to human health[2]. Crushing harvested soybeans creates two important products: soybean meal, 95% of which is used in animal feed[3]; and soybean oil, an edible vegetable oil used in many food, household and personal products, as well as being an increasingly important feedstock for biodiesel[4] (see Figure 1).

Soybean exports constitute 26% of Brazil's agricultural export earnings, totaling US $23 billion in 2013[5]. Brazil's largest market for soybean meal is Europe with increasing demand also coming from South East Asia[6]. However, 71% of all oilseed exports from Brazil are for the Chinese market[7], a demand that is expected to double between 2010 and 2020 due to an increasing demand for protein meal for animal production[8]. Demand for soybeans is also expected to increase domestically in Brazil with increasing domestic demand for livestock feed and soybean oil being predominantly used to meet a new mandatory biodiesel blending target of 7%[9].

1. (Lawson, 2014) http://www.forest-trends.org/documents/files/doc_4718.pdf#page=155
2. http://www.soyatech.com/soy_facts.htm
3. (Syngenta, 2013) https://www.syngenta.com/global/corporate/SiteCollectionDocuments/pdf/presentations/investor/crop-update-brazil-soybean-2013.pdf
4. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C43CFBC819DE7E1
5. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C43CFBC819DE7E1
6. (Global Canopy Programme, 2013) http://www.globalcanopy.org/sites/default/files/LittleBookofBigDeforestationDrivers_EN_0.pdf
7. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C43CFBC819DE7E1
8. (Lawson, 2014) http://www.forest-trends.org/documents/files/doc_4718.pdf#page=155
9. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C43CFBC819DE7E1

Introduction

Figure 1 Diagrammatic representation of soy supply chains (Global Canopy Programme, 2013)



Supply of soy

80% of the world's soy supply is provided by the USA, Brazil and Argentina[10]. However, the key tropical deforestation risk for soy is in Brazil where soy and cattle products have accounted for 98% of deforestation from 1995-2005[11] (in Argentina increased soy demand is currently met by switching crops on existing cropland[12]). Much of this deforestation occurs in the Amazon and Cerrado (savannah) biomes.

With more than half of Brazil's soy production exported[13], multinational companies can expect to have some Brazilian soy in their supply chains. Companies favor Brazilian soy as it has a higher protein content and is often cheaper than soy grown in the US (export costs are also expected to decrease with the recent levels of investment in Brazilian infrastructure)[14]. Furthermore, the presence of Brazilian soy in supply chains is expected to increase. Brazil has a greater potential for bringing new agricultural land into production than the USA (which is more competitive in producing maize, limiting its potential to covert large areas into soybean production)[15] and so Brazil is expected to supply 40% of the world's increase in imports up to 2030[16].

Meeting this increase in demand has to occur in the context of a number of other risks to soy supply. Climate change, for instance, may reduce yields. Although at a basic level soybean yields may be expected to increase with rising temperatures and carbon dioxide levels, extreme events, such as shorter summers, could, in a worst case scenario, result in a 35% reduction in soybean cultivation area by 2050[17]. Any resulting price volatility may pose a risk for companies. Indeed, US soybean farmers are already estimated to have lost US $11 billion in unrealized potential yield due to the effects of climate change[18].

Deforestation is not only an important contributor to these global climatic changes (land use change and agricultural production are the single largest sources of Brazil's greenhouse gas emissions[19]), but it also jeopardizes agricultural yields by causing local changes to climate. Indeed, deforestation has been linked to the recent severe drought in Brazil[20] which is estimated to have reduced Brazil's soy harvest of 2014/15 by 1 million metric tonnes[21] (equivalent to over US $302 million in lost value).

Regulatory change around deforestation, explored in more detail below, is therefore being driven by international efforts to tackle climate change and a domestic need to ensure Brazil can sustain and grow its position as a market leader in the production and export of soy.

Conversion of forests to pasture in the Amazon could result in a:

2.5°C

increase in average surface temperature and a

25%

decrease in precipitation*

*(Nobre, 2014) http://www.ccst.inpe.br/wp-content/uploads/2014/11/The_Future_Climate_of_Amazonia_Report.pdf

10. (Global Canopy Programme, 2013) http://www.globalcanopy.org/sites/default/files/LittleBookofBigDeforestationDrivers_EN_0.pdf
11. (Grieg-Gran et al. (2007) in (Lawson, 2014) http://www.forest-trends.org/documents/files/doc_4718.pdf#page=155
12. (Goldsmith & Hirsch, 2006) http://www.choicesmagazine.org/2006-2/tilling/2006-2-11.htm
13. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C-43CFBC819DE7E1
14. (Brown-Lima et al., 2010) http://www.nature.org/ourinitiatives/regions/southamerica/brazil/explore/brazil-china-soybean-trade.pdf
15. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C-43CFBC819DE7E1
16. (Agroicone, 2014) http://soylearningjourney.com.br/en/pdf/Whitepaper/Whitepaper.pdf
17. (FBDS, 2009) http://www.lloyds.com/~/media/lloyds/reports/360/360%20climate%20reports/fbdsreportonbrazilclimatechangeenglish.pdf
18. (Mourtzinis, 2014) http://www.nature.com/articles/nplants201426?beta=true
19. Data from Observatório de Clima in (Mongabay, 2014) http://news.mongabay.com/2014/11/rising-deforestation-fossil-fuels-use-drive-brazils-emissions-8-higher/
20. (Davies, 2014) http://www.bbc.co.uk/news/world-latin-america-29956589
21. (Schober, 2015) http://www.agweb.com/Brazilian-Soybean-Crop-Lowered-on-Drought-Conditions/

Brazilian soy & deforestation

Historically, soy production and deforestation were heavily interlinked.
The rapid expansion of soy production along the forest 'frontier' at the beginning of the 21st Century became notorious for driving an 'arc of deforestation' into the Brazilian Amazon, observed as a band of dark pink on Figure 2. At the peak of deforestation in this period, soy was directly responsible for a quarter of forest loss, as well as indirectly causing an increase in demand for land that pushed cattle ranching further into the forest[22].

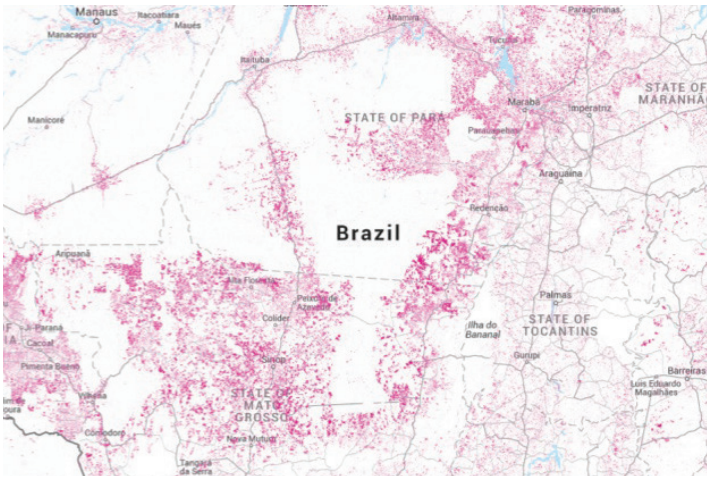


Figure 2 Loss of >30% of canopy density in Brazil shown in pink for 2000-2006. Source: Global Forest Watch[23].

Deforestation became decoupled from soy production in the Amazon.
Between 2006 and 2012, deforestation rates in the Brazilian Amazon decreased by 68%[24]. This followed the enforcement of The Action Plan for Prevention and Control of the Legal Amazon Deforestation (PPCDAm) in 2004, involving the creation of protected areas, macro-zoning and the development of satellite detection systems[25].

In the same period, following a major NGO campaign from Greenpeace in 2006[26], the Soy Moratorium was established: The Brazilian Association of Vegetable Oil Industries (ABIOVE) and the National Association of Cereal Exporters (ANEC), accounting for 90% of Brazilian soy market, agreed not to source from a blacklist of suppliers found to have deforested in the Amazon for soy production after 2006. They jointly acted together with NGOs and the Brazilian government in the Soy Working Group (GTS) to implement the commitment. From 30% of soy expansion occurring on newly deforested land prior to the moratorium, it dropped to just 1% in 2014[27].

However, whilst soy production was no longer directly being grown on newly deforested land in the Amazon under the Soy Moratorium, some of the same farms were still deforesting land, albeit not immediately for soy production, and were often still in contravention of the Brazilian Forest Code (the legal mechanism governing forest protection on private land)[28]. One recent study estimated that a cumulative area of forest larger than California (between 44 and 56 Mha) had been illegally cleared on private farm properties in Brazil up to 2011[29]. This deforestation could once more become directly associated with soy production.

Soy production associated with deforestation is set to increase again
Despite all the efforts to tackle forest loss, deforestation rates are once more on the rise in the Amazon with the devalued Brazilian Real creating favorable export market conditions[30] during the economic downturn and drought conditions reducing productivity on existing cropland and pasture. For instance, provisional satellite deforestation alerts increased by 77% for the Amazon between August 2014 and April 2015 when compared against the same period the year previously[31]. Furthermore, the Soy Moratorium, which has played a significant role in reducing deforestation in the Amazon from soy expansion, is due to come to an end in May 2016 to be replaced by the full implementation of the New Forest Code by the Brazilian government.

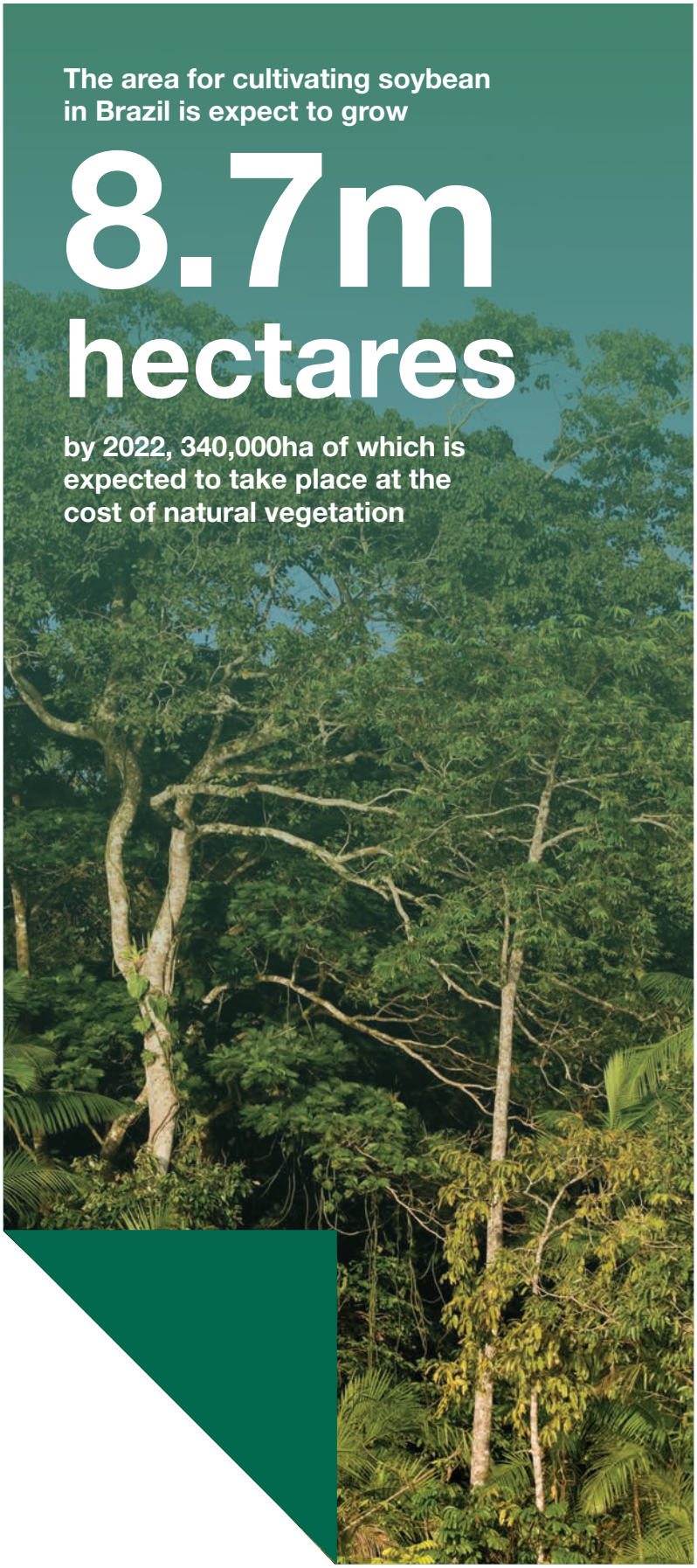
22. (Union of Concerned Scientists, 2011) http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/UCS_RootoftheProblem_DriversofDeforestation_FullReport.pdf
23. (Global Forest Watch, 2014) World Resources Institute. Accessed on (28.08.2015) www.globalforestwatch.org
24. (INPE, 2015) http://www.obt.inpe.br/prodes/index.php
25. (Gollnow & Lakes, 2014) http://www.sciencedirect.com/science/article/pii/S0143622814002045
26. (Greenpeace, 2006) http://www.greenpeace.org/usa/wp-content/uploads/legacy/Global/usa/report/2010/2/eating-up-the-amazon.pdf?81457d
27. (Gibbs et al., 2015) http://www.sciencemag.org/content/347/6220/377.summary
28. Ibid.
29. (Soares-Filho et al. 2014) in (Lawson, 2014) http://www.forest-trends.org/documents/files/doc_4718.pdf#page=155
30. (Mongabay, 2015) http://news.mongabay.com/2015/03/brazil-confirms-rising-deforestation-in-the-amazon/
31. DETER data (June 2015) http://www.observatoriodoclima.eco.br/en/press-release-brazil-a-role-model-for-redd-not/
32. (Reporter Brasil, n.d.) http://www.vedegylet.hu/doc/Glass.pdf

There is also increasing attention being paid to deforestation in the Cerrado biome of Brazil, a savannah region that alone accounts for 5% of the planet's biodiversity and which houses 60% of Brazil's soy plantings[32]. Without the same conservation efforts and moratoria as have been bestowed on the Amazon, there has remained a strong correlation between increased area of soy planting and increased deforestation in this biome over the last 15 years[33].

Soybean yields are not expected to substantially improve over the coming decade[34] and so the area for cultivating soybean in Brazil is expect to grow by 8.7 million hectares by 2022, 340,000ha of which is expected to take place at the cost of natural vegetation[35].

Increasing business risks from soy associated with deforestation

Given this rekindled relationship, in the absence of thorough due diligence companies cannot be confident that there will be no risk of soy directly associated with deforestation in their supply chains. This opens up their exposure to business risks, such as from changing regulations.



33. (Gibbs et al., 2015) http://www.sciencemag.org/content/347/6220/377.summary
34. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C43CFBC819DE7E1
35. (Agroicone, 2014) http://soylearningjourney.com.br/en/pdf/Whitepaper/Whitepaper.pdf

Do companies understand the deforestation risks associated with soy?

CDP's forests program annually requests data on deforestation risks and management for investors from over 700 of the largest companies in the world. A growing number of these companies report, currently over 160, providing the largest self-disclosed dataset available to investors across the key commodities driving deforestation globally: timber, palm oil, soy and cattle products.

CDP's latest data reveals that there is still a significant gap in company understanding of the business risks from producing/sourcing soy associated with deforestation[36].

This is in distinct contrast to company understanding of the material business risks from palm oil associated with deforestation. This is an area that has received much attention over the past year and now 96% of palm oil is covered by 'zero deforestation' commitments. Whilst palm oil has been in the spotlight from NGOs over the last few years (whereas Greenpeace's campaign on soy dates back to 2006), there is little reason to think that the business risks from soy are any different.

- Of those companies stating to CDP that they produce/use each commodity, a smaller proportion of companies then go on to report on soy deforestation risk versus those that complete a disclosure on palm oil.

37% of companies responding to CDP's forests program do not report on **soy** despite stating that they produce or use soy

Compared to **19%** of companies responding to CDP's forests program that do not report on **palm oil** despite stating that they produce or use palm oil.

This is reflected in the analysis conducted for the Forest500, an effort by the Global Canopy Programme to identify the biggest powerbrokers of deforestation. They found that less than 20% of the companies they analyzed as powerbrokers in the soy supply chain had specific policies on sustainable soy, compared to 59% of those analyzed for palm oil[37].

Regulatory risks associated with deforestation are particularly under-recognized amongst companies:

- Across the commodities, regulatory risks are least frequently reported by companies compared to reputational and physical risks despite often being seen as the highest magnitude and most likely risks by those companies that do report them.
- The recognition of these regulatory risks is also lower for soy than for other commodities:

Only **30%** of companies reporting on **soy** to CDP's forests program recognize regulatory risks with the potential to have a substantial business impact.

43% of companies reporting on **palm oil** to CDP's forests program recognize regulatory risks with the potential to have a substantial business impact.

36. CDP's company data on forests extracted on 10 August 2015 for 2015 reporting year.
37. (Global Canopy Programme, 2015) http://forest500.org/sites/default/files/companies_analysis_january_2015.pdf

Only

30%

of companies reporting on soy to CDP's forests program recognize regulatory risks with the potential to have a substantial business impact.

43%

of companies reporting on palm oil to CDP's forests program recognize regulatory risks with the potential to have a substantial business impact.

Regulatory risks

This reported low level of awareness and understanding of soy and regulatory risks amongst companies is in contrast to the facts:

- Soy production associated with deforestation is set to increase in Brazil; and
- There is mounting pressure nationally and internationally to ensure that the growing soy demand is met sustainably.

There are therefore a number of regulatory risks on the horizon that may impact company supply chains. This paper will focus on the following examples:

1. Enforcement of the new Brazilian Forest Code

The Soy Moratorium, established in 2004, was extended again in 2014 to ensure those trading and financing soy production are no longer directly associated with deforested land and therefore any land clearance in the Amazon directly in contravention of Brazilian law. However, the moratorium is in a transition period and is due to end on 31st May 2016 to be replaced by the full implementation of the amended Brazilian Forest Code (approved in 2012)[38].

This transition could lead to higher meat prices or lower margins for producers. This risk is demonstrated by the response from JBS, a Brazilian meat producer that sells its products to a wide range of multinational retailers and food producers.

The key obligation of the new Forest Code is that all farmers have until the end of the Soy Moratorium to be mapped and registered on Brazil's Environmental Registry, "Cadastro Ambiental Rural" or CAR. There will be a number of repercussions for companies not registered on the CAR. For example, the ABIOVE industry group has already committed to not source soybeans from non-compliant suppliers[39] and as of May 2016, banks will not be allowed to grant agricultural credit to farmers who are not registered in the CAR[40]. This is in addition to an increasing number of multi-national banks that are implementing policies with legal compliance and environmental criteria on what projects and companies they can provide debt to (see the Banking for Environment Initiative's Soft Commodities Compact).

JBS

The new Brazilian Forest Code demands that all rural properties, of the national territory, have to hold a CAR (Cadastro Ambiental Rural) [by] May/2016.

After this deadline JBS will only be allowed to deal with regularized suppliers and the company will face a limited purchase access.

JBS could be forced to buy soy from other regions in case of the establishment of a new regulation that bans crops in determined areas of the country, resulting in the increase of production costs.

Uncertainties related to the future of the Soy Moratorium, that expires in May 2016 are also a risk to the company´s operations.

Likelihood: Likely
Magnitude: High

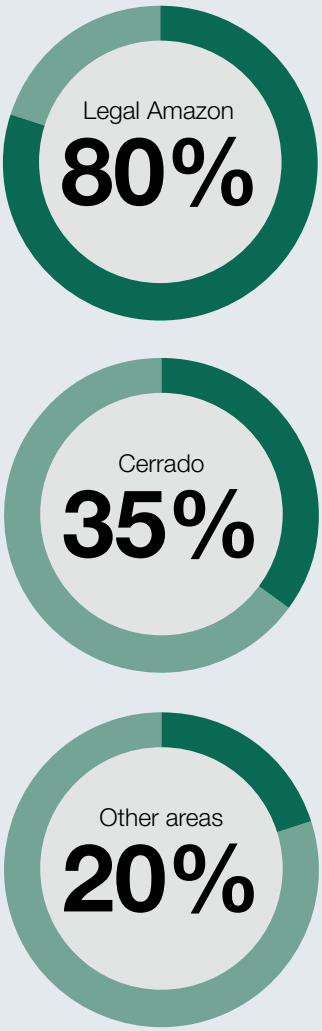
Response to CDP's forests program, 2015

38. (Fefac, 2014) http://www.fefac.eu/news.aspx?CategoryID=2094&EntryID=18783
39. (Byrne, 2015) http://www.feednavigator.com/Markets/Brazilian-farmers-signing-up-to-soy-moratorium-replacement-scheme
40. (Agroicone, 2014) http://soylearningjourney.com.br/en/pdf/Whitepaper/Whitepaper.pdf

Box 1:
Brazil's Forest Code*

This legislation governs the protection of forests and other areas of importance for ecosystem services on private land. It includes:

- Provisions for Permanent Preservation Areas (APPs): landowners are required to protect areas of sensitive land e.g. riparian areas and slopes.
- Legal Reserve Areas. Current criteria (although there are exceptions):



*(National Wildlife Federation, 2015) www.zerodeforestationcattle.org

The CAR will include identifying those areas of land that will constitute the farmer's Legal Reserve (see their obligations in Box 1) which, together with verification from satellite imagery, will help to identify those farmers not complying with the Forest Code. Those not in compliance with the required legal reserve and permanent preservation areas (APPs) will need to sign a Terms of Agreement containing the obligations they need to implement with those subsequently failing to comply being held liable. However, an amnesty does mean that farmers that illegally converted areas before July 2008 will have some of their 'restoration debt' wavered. There will also be added flexibility to offset restoration debt by compensating, renting or buying an equivalent forested area in the same biome[41].

In August 2015 Germany announced 23 million Euros to help Brazil establish this environmental registry.**

**(Reuters, 2015) http://www.reuters.com/article/2015/08/21/us-brazil-germany-climatechange-idUSKCN0QQ06320150821

Monitoring and enforcement

of the old Forest Code was notoriously difficult but there is some evidence to suggest that enforcement of this new Forest Code is likely to increase:

- Monitoring systems have been a key focus of efforts under the Brazilian action plan for the Amazon (PPCDAm). For example, DETER or the Real Time System for Detection of Deforestation has very effectively been used by the Brazilian Environmental & Renewable Natural Resources Institute (IBAMA) to target law enforcement in the Amazon. In line with its new action plan for the Cerrado, Brazil is planning to extend the capabilities of its monitoring systems, including extending them to cover other biomes[42].

41. (Agroicone, 2014) http://soylearningjourney.com.br/en/pdf/Whitepaper/Whitepaper.pdf
42. (Brasilia, 2015) http://www.mma.gov.br/redd/index.php/en/legal-framework/national/ppcerrado

Regulatory risks

The PPCDAm also increased the number of law enforcement personnel and ensured sanctions were in place for illegal clearance e.g. fines, embargoes, seizure of goods, tools and materials and arrest[43]. The environment minister has promised action against those responsible for illegal conversion with almost 4,000 ongoing police investigations[44]. Significantly, in February 2015, IBAMA arrested a so-called 'King-Pin' of illegal land conversion, Ezequiel Antonio Castanha, thought to be responsible for up to 20% of all illegal cuttings in the Amazon over the past few years[45].

This enforcement is needed by a government which not only faces lost revenue from illegal activity, but it also risks its reputation as a growing economy wanting to attract international investment. Certainly, Brazil's international obligations require a crack-down on illegality (see section on 'International climate efforts result in stricter local land use policy'). If and how Brazil collects the 20 million hectares restoration debt still owed by the private sector is likely to have the biggest impact on its ability to meet these obligations[46].

The enforcement of this high profile legislation will certainly be under considerable scrutiny from the international community. Companies not prepared for these changes may face shocks, including increased operational costs for producers, supply disruption and an impact on companies' license to operate.

Brazil's Real Time System for Detection of Deforestation is estimated to have prevented the clearing of over 59,500km² of forest between 2007- 2011

(59% less deforestation than with no policy change at all)*

*(Climate Policy Initiative, 2013) http://climatepolicyinitiative.org/wp-content/uploads/2013/05/DETERring-Deforestation-in-the-Brazilian-Amazon-Environmental-Monitoring-and-Law-Enforcement-Executive-Summary.pdf

2. EU action on deforestation extended to soy

The EU is the largest importer of value-added soybean meal, importing just under 10 million tonnes each year of soy meal from Brazil, predominantly for animal feed[47]. A report produced by the EU Commission estimated that the EU27 imported almost 36% of all deforestation between 1990–2008, embodied in crop and livestock products, which is greater than any other region globally[48].

Marks and Spencer

Proposals under consideration by EU to address consumption of deforestation risk commodities may require new regulations

Likelihood: About as likely as not
Magnitude: Medium

Response to CDP's forests program, 2015

The EU is committed to ending natural forest loss by 2030, a commitment reinforced by its endorsement of the New York Declaration (alongside a number of member countries e.g. Belgium, France and Germany) which aspires to support the removal of commodity-driven deforestation from corporate supply chains by 2020[49]. This sits alongside a large market movement amongst the consumer goods sector to commit to zero deforestation in their supply chains (although many of these commitments currently focus on palm oil, a key driver of deforestation in S.E. Asia). The commitment being shown is particularly strong from the Netherlands which is often the first port of call for soybeans imported into the EU. For example, Dutch supermarkets signed the Covenant for Responsible Soy in 2011 aiming for all soy used in the production of meat, dairy, eggs and other foods to be Round Table for Responsible Soy (RTRS) certified by 2015[50].

43. (Climate Policy Initiative, 2013) http://climatepolicyinitiative.org/wp-content/uploads/2013/05/DETERring-Deforestation-in-the-Brazilian-Amazon-Environmental-Monitoring-and-Law-Enforcement-Executive-Summary.pdf
44. (Lawson, 2014) http://www.forest-trends.org/documents/files/doc_4718.pdf#page=155
45. (Hay, 2015) http://www.vice.com/read/brazils-forest-kingpins-643
46. (WWF, 2015) http://d2ouvy59p0dg6k.cloudfront.net/downloads/zeronetdef_2015_technical_report_final.pdf
47. (McFarlane & O'Connor, 2014) http://rdi.cass.cn/uploadfile/20157293421.pdf
48. (European Union, 2013) http://ec.europa.eu/environment/forests/pdf/3.%20eport%20policies%20proposal.pdf
49. (UNDP, 2014) http://www.un.org/climatechange/summit/wp-content/uploads/sites/2/2014/07/New-York-Declaration-on-Forest-%E2%80%93-Action-Statement-and-Action-Plan.pdf
50. (Duth Soy Coalition 2014) http://www.wetlands.org/Portals/0/publications/Book/Soy%20Barometer2014_UK_FINAL.pdf

To help realize these commitments, 2014 saw calls from NGOs for an EU Action Plan on deforestation and forest degradation[51]. Various potential policy options have been put forward by the EU Commission[52]:

- Extend the sustainability criteria for biofuels for other uses of the same crops (food, feed, products, materials);
- Promote and strengthen FLEGT, and expand to other commodities;
- Mandatory labelling of the forest footprint of (food) products;
- Increase the import tariffs of commodities that are associated with deforestation; and
- Attach sustainability criteria to the import of commodities that are associated with deforestation.

For example, an extension of the EU Forest Law Enforcement, Governance & Trade (FLEGT) Action Plan could be significant. The policy currently applies to illegal timber imports but a broader focus to cover other commodities imported into the EU that are heavily involved in illegal land clearance has been widely advocated by NGOs[53]. Elements of the existing Action Plan include supporting countries to address illegal production, setting up Voluntary Partnership Agreements to help develop the processes in place for legal trade, promoting public procurement policies and supporting private sector initiatives. This is in addition to supporting regulation for timber, which places requirements for due diligence on first importers of timber into the EU.

Given an estimated US $21 billion worth of soy internationally traded each year is thought to be linked to illegal tropical deforestation[54], companies should be aware of any policy movements to start addressing this issue.

3. International climate efforts result in stricter local land use policy

Reducing carbon emissions from deforestation and degradation, as well as protecting existing forest sequestration of carbon could contribute 24-33% of all carbon mitigation[55]. The ground-breaking Stern Review on the economics of climate change identified curbing deforestation as an important and cost-effective means to reduce global carbon emissions[56]. For example, any price of carbon set above 0.76 USD/tCO_2 would more than compensate the cost of environmental monitoring and law enforcement in the Amazon[57]. As such, a mechanism for financially incentivising forested countries to Reduce Emissions from Deforestation and Degradation (REDD+), has been negotiated under the UNFCCC for a number of years with the guidelines finalized in June 2015. Countries have been given clear guidance that national REDD+ strategies should include a focus on the drivers of deforestation[58].

It is anticipated that Brazil may be greatly exposed to future regulatory changes. The Amazon region together with the surrounding Cerrado savannah contain the largest portion of the world's terrestrial biodiversity[59] and are very important carbon stocks: deforestation in Brazil is of international importance. Brazil has therefore been in the spotlight at international climate negotiations, particularly around REDD+. An Interministerial Working Group on REDD+, is now in the final stages of negotiating and building Brazil's national strategy for REDD+ (called 'ENREDD+'). The ENREDD+ will coordinate and drive efforts that currently fall under the National Climate Change Policy, the New Forest Code and the plans to prevent and control deforestation in the biomes[60].

PepsiCo

We are seeing increasing interest from national governance and supra-national agencies in the impact of deforestation and in setting regulations to increase transparency and reduce the environmental and social impacts of deforestation around the world. We have also seen an increase in international cooperation, which is highlighted by UN Conference of the Parties (COP) 17 and the Rio+20 Conferences that led to the REDD+ program enhancement

Response to CDP's forests program, 2015

51. (FERN, 2014) http://www.fern.org/sites/fern.org/files/Joint%20NGO%20statement%20-%20High%20level%20EU%20conference%20on%20deforestation%20%2826-27%20May%202014%29.pdf
52. (European Union, 2013) http://ec.europa.eu/environment/forests/pdf/1.%20Report%20analysis%20of%20impact.pdf
53. (Ozinga & Pritchard, 2015) FERN http://www.fern.org/sites/fern.org/files/Catching%20It%20All.pdf
54. (Lawson, 2014) http://www.forest-trends.org/documents/files/doc_4718.pdf#page=155
55. (International Sustainability Unit, 2015) http://www.pcfisu.org/wp-content/uploads/2015/04/Princes-Charities-International-Sustainability-Unit-Tropical-Forests-A-Review.pdf
56. (Stern, 2006) http://webarchive.nationalarchives.gov.uk/+/http:/www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm
57. http://climatepolicyinitiative.org/wp-content/uploads/2013/05/DETERring-Deforestation-in-the-Brazilian-Amazon-Environmental-Monitoring-and-Law-Enforcement-Executive-Summary.pdf
58. (Recio, 2014) http://yielaw.oxfordjournals.org/content/24/1/37.extract
59. (OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C-43CFBC819DE7E1
60. (Brasilia, DF, 2015) http://unfccc.int/files/land_use_and_climate_change/redd_web_platform/application/pdf/brazil_safeguards_summary_final20150508.pdf

Regulatory risks

Brazil has not yet announced its Intended Nationally Determined Contributions (INDC) to the UNFCCC but there is considerable momentum with a national GHG reduction target of 36% below business-as-usual for 2020[61] and several deforestation targets for the Amazon and Cerrado. Germany has now followed the Norwegian government in providing bilateral funding towards these REDD+ efforts in Brazil. In an announcement in August 2015, the German Development Ministry committed 525 million Euros in loans to fund renewable energy sources and to preserve forests[62].

However, most importantly, President Dilma Rousseff stated in August 2015 that Brazil is committed to reducing deforestation in the Amazon to zero by 2030[63]. The promise of this new level of ambition from Brazil, sends a strong signal that stricter regulation, policy and enforcement around deforestation is likely in the coming years. WWF estimates that to achieve this goal significantly more ambitious targets will be needed, such as an 80% cut in deforestation area from the 2008-2012 average in all biomes, combined with 375,000 hectares per year of restoration[64].

With 30% of Brazil's GHG emissions associated with deforestation being embedded in commodities exported to consumer markets[65], multinational companies should be aware of the potential risks these efforts may bring if their soy production and procurement is associated with deforestation.

Brazil is the fifth highest greenhouse gas emitter in the world*

78%

of its emissions come from land use, land use change and forestry**

*(OECD-FAO, 2015) http://www.oecd-ilibrary.org/docserver/download/5115021e.pdf?expires=1439894331&id=id&accname=guest&checksum=62EF56A43FDDDF082C43CFBC819DE7E1

**(Brazil UNFCCC submission, 2015) https://unfccc.int/files/land_use_and_climate_change/redd/application/pdf/20140606_submission_frel_brazil.pdf

61. (Edwards, 2015) http://www.climatedevlab.org/home/dont-count-on-brazil-stepping-up-in-paris
62. (Reuters, 2015) http://www.reuters.com/article/2015/08/21/us-brazil-germany-climatechange-idUSKCN0QQ06320150821
63. Ibid.
64. (WWF, 2015) http://d2ouvy59p0dg6k.cloudfront.net/downloads/zeronetdef_2015_technical_report_final.pdf
65. (Karstensen et al., 2013) http://iopscience.iop.org/1748-9326/8/2/024005/article

Potential company impacts

Over 160 companies now report annually to investors via CDP about the deforestation-related risks they face and how they manage these risks within their business. Commonly reported potential impacts of regulatory risks are increased operational costs, reduction/disruption of supply and several companies report a reduction in (cheap) capital availability, specifically in relation to soy.

If companies are not prepared for the changes in regulation explored by this paper, this may create unexpected impacts in those three ways. Some examples of these impacts are included in Table 1. It is important to note however, that these regulatory risks are in reality one of a number of different, interrelated risks, such as reputational risks, that would inevitably interact.

Table 1 **Examples of potential impacts related to the soy regulatory risks explored by this paper**

Company	**Potential impacts from increased regulatory pressure on soy production and deforestation**		
	Increased operating costs	**Reduced/disrupted prodution or supply**	**Impact on license to operate**
Producers	◥ Cost of CAR registration and Forest Code compliance (although reduced restoration obligations for areas illegally deforested prior to 2008) and/or offsetting in the same biome; ◥ Fines/penalties for non-compliance; ◥ Decreased availability/ increased cost of land; ◥ Increased market demand to become certified.	◥ Opportunity cost of removing land from productive use if compliant with legal reserve.	◥ Reduced access to credit if not CAR registered and non-compliant; ◥ Reduced market access if not CAR registered and non-compliant.
Processors/ Traders	◥ Increased cost of soy inputs; ◥ Costs of due diligence processes (e.g. if EU widens scope of FLEGT Action Plan beyond timber).	◥ Reduced number of (compliant) suppliers to source from.	◥ Risk of reduced market access if sourcing from non-compliant farms; ◥ Risk of reduced access to credit if not sourcing soy compliant with national laws.
Manufacturers/ Retailers	◥ If civil society pressure demands implementing new traceability systems for soy (these have been demanded for palm oil supply chains but soy moratorium has negated any need for that for soy until now); ◥ Increased costs to supply compliant material.	◥ Reduced number of (compliant) suppliers to source from.	◥ Increased reputational risk relating to illegal material entering the supply chain, potentially leading to consumer boycotts and loss of consumer trust.

Implications for investors

Deforestation risks have the potential to significantly impact companies, as the examples outlined by this paper of soy regulatory risks have demonstrated.

Over half of the soy produced in Brazil is exported and with current global demand trajectories for soy, Brazilian soy is likely to be a permanent feature of supply chains going forward for animal feed, food products and household goods. However, the association between Brazilian soy and deforestation, which is only expected to get stronger with the end of the Amazon Soy Moratorium, does bring a number of business risks. As explored by this paper, regulatory risks, if left unaddressed, may ultimately impact the revenue of companies along the soy supply chain by increasing operational costs, reducing/disrupting production and supply of soy into the market and impacting their license to operate. This could increase the probability of low expected Net Present Values (NPVs).

CDP's data demonstrates that the business risks associated with deforestation, particularly regulatory risks, are under-recognized by companies in relation to soy. However, investors currently have even less visibility on the issue than companies which means that methods for company valuation may not be taking into account material considerations (see figure 3).

Figure 3 the potential impact of under-recognized regulatory risks on portfolio performance

Potential solutions for companies

Research shows that yield improvements could reduce any need to expand onto forested land[66] and in any case that large areas of land already cleared in Brazil would be enough to triple current soy production without causing further deforestation[67]. It is possible therefore for companies to effectively manage the business risks associated with Brazilian soy.

Certification schemes offer a potential means to help manage these risks. Common certification schemes for soy, such as ProTerra and the Round Table on Responsible Soy (RTRS), specify cut-off dates after which deforestation cannot occur (2004 for ProTerra, 2009 for RTRS). Adoption of certification schemes by companies can also reduce many other related risks, such as the risk of slave labor. To better understand the full scope of these certification schemes for soy, see the example of the ProTerra Soy Standard in Box 2.

However, with a current lack of widespread demand for certified soy, certified material may not always be available. When this is the case, companies may take equivalent approaches, such as those described by commodity giant Cargill below.

Therefore, although companies are currently under-recognizing these risks, leaving investors with little visibility on implications for company valuations, there are potential solutions on hand and investors can play a role in demanding transparency and action from companies.

Principles of the ProTerra Soy Standard (v.3.0)*

1. Compliance with law, international accords and the ProTerra Standard
2. Human rights and responsible personnel policies, labour practices
3. Responsible relations with workers and community
4. Environmental services, effective environmental management plan
5. Genetically Modified Organisms (GMO) not used
6. Pollution and waste managed effectively
7. Water managed conservatively
8. Greenhouse gases and energy managed effectively
9. Good agricultural practices adopted
10. Traceable and segregated Chain of Custody

*(ProTerra Foundation, 2014) http://www.proterrafoundation.org/files/ProTerra_Standard_V3.0_EN.pdf

Cargill

In Brazil's Pará state, Cargill only purchases from area farms that have obtained a CAR (Rural Environmental Registry). This means they all have been evaluated by The Nature Conservancy for compliance with conservation laws and have official environmental registration with the state government. Every farm that supplies Cargill's soy terminal in Santarém is monitored. Satellite imagery and field visits are used to detect any changes to land use. All soy sourced in Brazil is checked against the Brazilian Ministry of Environment list of embargoed areas and the Ministry of Labor list of slave labor (Brazilian Pact for Eradication of Slave Labor).

Response to CDP's forests program, 2015

66. (Mongabay, 2014) http://news.mongabay.com/2014/07/brazil-could-meet-all-its-food-demand-by-2040-without-cutting-down-another-tree/
67. (National Wildlife Federation, 2015) http://blog.nwf.org/2015/01/new-study-co-authored-by-nwf-shows-amazon-soy-moratorium-saves-more-rainforest/

Conclusions

- CDP's data shows that deforestation risks associated with soy are being overlooked by companies, although the risks are similar to those presented by palm oil;
- Given increasing demand, Brazilian soy is likely to be a permanent presence in company supply chains but it has been heavily linked to deforestation. Deforestation from soy production is only expected to increase again in the Amazon with the Soy Moratorium due to end in 2016;
- This is likely to cause an increase in business risks related to deforestation. For example, this paper explores some examples of soy regulatory risks: enforcement of the new Brazilian Forest Code; EU action on deforestation extended to soy; and international climate efforts resulting in stricter local land use policy;
- The potential company impacts from these risks are likely to include increased operational costs, reduction/disruption of supply and an impact on license to operate;
- With little visibility for investors on these risks, these potentially material considerations are unlikely to have been factored in to company valuation but there are potential solutions on hand for companies;
- Investors need to ensure that companies are transparent on this issue and should engage companies on deforestation-free soy to ensure that companies understand the importance of mitigating those risks.

Further research

The purpose of this white paper is to explore examples of potential impacts relating to soy associated with deforestation. It is by no means a full investigation of a very complex topic and there is plenty of further research to be done. For example:

- What is the potential for companies to pass on the costs as food inflation?
- What would the effect be on soy demand of a slowdown in the Chinese market? And
- How might these examples of regulatory risks interact with other interrelated risks e.g. reputational risks?

Recommendations

As described at the outset of this paper, companies are less aware of the business risks from soy associated with deforestation relative to those associated with palm oil. We recommend that investors:

1. Ensure that the companies in their portfolio are transparent on deforestation risks and risk mitigation through reporting to mechanisms such as CDP's forests program;
2. Engage companies on deforestation-free soy to ensure they understand the importance of mitigating those risks.

Questions to consider including when engaging companies on deforestation risks (and specifically regulatory preparedness):

1. What value is at risk from soy linked to deforestation?
   - Have you scoped your use of soy (including animal feed) and where it is sourced from?
   - How dependent is your organization's revenue on soy?
   - What risk assessment do you do for soy (and does it include regulation)?
   - What (regulatory) risks have you identified related to soy?
2. What visibility do you have for soy impacts in your supply chain?
   - Do you know how much soy you produce/ procure?
   - Do you have traceability systems to monitor the origin of your soy?
3. How are you responding to the risks associated with deforestation and soy?
   - Do you have a commitment to reduce or remove deforestation or a policy that covers soy?
   - Are you an active member of multi-partnership initiatives relating to soy sustainability?
   - What standards or certification schemes do you require for the production/procurement of soy?
   - What targets do you have in place for sustainable production/procurement of soy?
   - How are you working with your supply chain on soy to ensure these ambitions are realized?

What should investors be looking for?

Investors may want to benchmark their investee companies against best practice. Whilst best practice is still emerging, we believe that the following indicators demonstrate a company has a good understanding and management of potential deforestation risks (including those driven by regulation):

- A developed understanding of how soy enters its supply chain and is linked to revenue;
- Assesses soy deforestation risk (including regulatory risk) annually as part of an integrated company risk assessment process looking at risks at least 3 years ahead, the results of which are reported to board level;
- Can articulate the magnitude, likelihood and timeframe of soy (regulatory) risks in a company-specific context;
- Can provide full and quantitative data on its consumption and/or production of soy;
- Has 100% traceable or third party certified soy (to ensure information transfer on deforestation risk along the supply chain);
- Has a commitment to Zero (net) Deforestation by 2020 that covers soy; and
- Has achieved or has a target for achieving 100% certified soy or an equivalent standard that addresses soy deforestation risks.

CDP's forests program

If you are a signatory to CDP's forests program, this data is being collected through our annual information request to companies (see Annex 1) and you can access it through CDP's investor portal. Also available to you are individual company feedback reports that benchmark the company against its sector, draws out its performance against key KPIs and provides recommendations for improvement.

Annex 1:
CDP's forests questionnaire as a tool for assessing companies on their preparedness for deforestation risks

Annex 1

Central concepts	Key Questions	Specific data points in CDP's forests questionnaire
What value is at risk from soy linked to deforestation?	Have you scoped your use of soy (including animal feed) and where it is sourced from?	◥ F1.1 How does your organization use your selected commodities? (incl. column 5 – source location)
	How dependent is your organization's revenue on soy?	◥ F1.2 Please indicate the percentage of your organization's revenue dependent on each of your selected forest risk commodities.
	What risk assessment do you do for soy (and does it include regulation)?	◥ F2.1a Please provide further details on your risk assessment procedures with regard to deforestation risks and opportunities. ◥ F2.1b Please identify which of the following criteria are factored into your organization's deforestation risk assessments. ◥ F7.2 Have you evaluated have the availability or quality of forest risk commodities could affect your organization's growth strategy?
	What (regulatory) risks have you identified related to soy?	◥ F3.1a/b/c For your selected forest risk commodities, please describe any inherent risks in your direct operations or supply chain driven by changes in physical parameters/ changes in regulation/ reputational risks that have the potential to generate a substantive change in business operations, revenue or expenditure.
What visibility do you have for soy impacts in your supply chain?	Do you know how much soy you produce/procure?	◥ F5.2 Does your organization collect production and/or consumption data for your selected commodities?
	Do you have traceability systems to monitor the origin of your soy?	*If Producer/Processor/Trader:* ◥ F6.1 Do you have a system in place to track and monitor the origin of raw materials for your selected commodities? ; ◥ F6.1a Please describe the system. *If Manufacturer/Retailer:* ◥ F6.3 Please provide details on the level of traceability your organization has for your selected commodities.

Annex 1

Central concepts	Key Questions	Specific data points in CDP's forests questionnaire
How are you responding to the risks associated with deforestation and soy?	Do you have a commitment to reduce or remove deforestation or a policy that covers soy?	◥ F8.2 Has your organization made a commitment to reduce or remove deforestation and forest degradation from your direct operations and/or supply chain? F8.2a Please identify which of the following criteria are specifically stated in your organization's commitment. ◥ F8.4 Do you have commodity specific sustainability policies? (incl. column 4 – cut-off date for deforestation)
	Are you an active member of multi-partnership initiatives relating to soy sustainability?	◥ F9.3 Are you involved in any multi-partnership or stakeholder initiatives relating to the sustainability of these commodities? Please describe your role.
	What standards or certification schemes do you require for the production/ procurement of soy?	◥ F9.4 Do you specify any third party certification schemes for your selected commodities? *If Producer/Processor/Trader:* ◥ F9.1 Do you have any environmental standards for the production of raw materials for your selected commodities, other than third party certification schemes. *If Manufacturer/Retailer:* ◥ Does your organization enforce any procurement standards that impact your sourcing of forest risk commodities?
	What targets do you have in place for sustainable production/procurement of soy?	◥ F9.5 Do you have any quantified targets for third party certified materials in your direct operations and/or supply chain? ◥ F9.6 Do you have any quantified targets for sustainable production and/or procurement, other than third party certification?
	How are you working with your supply chain on soy to ensure these ambitions are realized?	*If Producer/Processor/Trader:* ◥ F10.2 Are you working with smallholders to encourage and support sustainable forest management practices? *If Manufacturer/Retailer:* ◥ F10.3 Are you working with your direct suppliers to support and improve their capacity to supply sustainable materials? ◥ F10.4 Are you working beyond the first tier of your supply chain to manage and mitigate risk?

About the authors

About CDP

CDP investor initiatives – backed in 2015 by more than 822 institutional investors representing an excess of US$95 trillion in assets – give investors access to a global source of year-on-year information that supports long-term objective analysis. This includes evidence and insight into companies' greenhouse gas emissions, water usage and strategies for managing climate change, water and deforestation risks.

Leveraging the power of the shareholder and lender, CDP has gathered the largest global collection of self-reported environmental information. Our system enables companies around the world to measure, disclose, manage and share climate change, forest and water information. As a result, these investor initiatives play a critical role in driving emissions reductions and improved water and forest management and trigger corporate behavioral change.

About Schroders

At Schroders, asset management is our business and our goals are completely aligned with those of our clients - the creation of long-term value.

We manage £309.9 billion on behalf of institutional and retail investors, financial institutions and high net worth clients from around the world, invested in a broad range of asset classes across equities, fixed income, multi-asset and alternatives.

We employ over 3600 talented people worldwide operating from 37 offices in 27 different countries across Europe, the Americas, Asia and the Middle East, close to the markets in which we invest and close to our clients.

Schroders has developed under stable ownership for over 200 years and long-term thinking governs our approach to investing, building client relationships and growing our business.

Source: Schroders, all data as at 30 June 2015.

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