Risking animal welfare

Case study on investments in chicken and pig meat production

Fair Bank Guide

Embargoed until: 28 February 2018

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The Fair Bank Guide is a coalition of the following organizations:

Amnesty International, FNV, Milieudefensie, Oxfam Novib, PAX and World Animal Protection[i]

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[i] Not all coalition members of the Fair Bank Guide work on all themes and/or sectors on which the research of the Fair Bank Guide focuses. Reports on specific themes therefore do not necessarily reflect the opinion of all coalition members of the Fair Bank Guide.

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Summary

In the period 2012-2017, Dutch banks have invested EUR 8,8 billion in the world's biggest companies in the chicken and pork industry. To varying degrees, these companies cause or are directly linked to animal welfare infringements on a massive scale. These infringements are caused by overcrowding (high stocking densities), barren environments, mutilations, selective breeding, the use of cages, restrictive feeding, rough handling and inadequate slaughter methods. The animals experience pain, stress and boredom. They are not able to express their natural behaviour - or are severely restricted in doing so. They are prone to suffer from leg problems, respiratory problems, infectious diseases en injuries. Moreover, several of these companies have hit the news in recent years due to investigations revealing gross animal cruelty, including Tyson Foods.

Industrial, or intensive, livestock production follows a business model based on exploiting economies of scale, with the main objective to maximize profitability. Animal welfare is therefore continuously at risk. Because this risk is systematic and inherent to the characteristics of the sector, this reports questions the financial relationships of Dutch banking groups with the world's largest industrialised chicken and pig meat producers and processors, retailers and restaurants. Table 1 presents the companies that were selected for this study.

Table 1 Overview of selected companies for this study, per supply chain segment

Chicken meat producers and processors	Pig meat producers and processors	Food retailers	Restaurant companies
Pilgrim's and JBS Aves Brazil (JBS)	Smithfield (WH Group)	Wal-Mart Stores	Subway
Tyson Foods (including US and Mexico operations)	CP Group	Schwarz Unternehmenstreuhand	McDonald's
BRF	Thai Foods Group	Tesco	KFC and Pizza Hut (Yum! Brands)
Guangdong Wen's Food Group	Triumph Foods	Carrefour	Burger King (Restaurant Brands International)
Industrias Bachoco	Cooperl Arc Atlantique	Aldi Einkauf	Domino's Pizza Group
New Hope Liuhe (New Hope Group)	Danish Crown		
LDC	Tönnies		
Plukon Food Group	Yurun Group		
PHW Group	Vion Food Group		
2 Sisters Food Group	Hormel Foods		

Through financing companies in the industrial livestock production, banking groups become a part of the animal welfare infringements that happen in this sector. It is important that banking groups realise animal welfare is one of the environmental, social and governance (ESG) issues that need to be considered, as part of decision making regarding financing such companies, both in terms of risks and opportunities. This case study therefore aims at establishing financial links between the seven banking groups selected by the Dutch Fair Bank Guide - ABN Amro Bank, De Volksbank (ASN Bank en SNS Bank), ING Bank, NIBC, Rabobank, Triodos Bank and Van Lanschot - and selected companies, through corporate credits (loans and other forms of credit, and underwriting of share and bonds issuances) and project finance.

Financial relationships

In the years 2012-2017, EUR 282 billion is invested in the selected livestock and meat production companies by banks globally, and Dutch banks contributed to this with a relatively large share. With EUR 8.8 billion or 3% of the total identified financial relationships, banks from the Netherlands rank seventh, after, amongst others, banks from the United States, United Kingdom and France. This research further identified financial relationships for three out of the seven assessed Dutch banking groups with seven chicken meat companies, eight pig meat companies, four food retailers and four restaurant companies: in total for 23 out of the 30 selected companies. The findings are summarized in Table 2.

Table 2 Finance of Dutch banks to the selected companies, per value segment (in EUR million)

Value segment, company	ABN Amro	ING Group	Rabobank	Total
Chicken meat				
BRF		47	47	94
Pilgrim's and JBS Aves (JBS)		187	1,404	1,591
New Hope Group			18	18
Plukon Food Group	563			563
Tyson Foods	45	44	1,904	1,994
Total Chicken meat	*608*	*278*	*3,374*	*4,259*
Pig meat				
Charoen Pokphand Group			350	350
Triumph Foods			71	71
Smithfield (WH Group)		147	1,097	1,245
Vion Food Group	5			5
Total Pig meat	*5*	*147*	*1,518*	*1,670*
Restaurant companies				
Domino's Pizza Group			57	57
McDonald's		140	472	612
Restaurant Brands International			805	805
Yum! Brands		45	465	509
Total Restaurant companies		184	1,799	1,983
Food retailers				
Carrefour		736		736
Schwarz Unternehmenstreuhand	45		150	195
Total Food retailers	*45*	*736*	*150*	*931*
Total	**658**	**1,345**	**6,840**	**8,843**

Rabobank is by far the biggest financier. It financed twelve companies with a total value of EUR 6.8 billion, representing 77% of identified finance by Dutch banks. Chicken meat producer Tyson Foods is its largest borrower with a total value of EUR 1.9 billion, and JBS (EUR 1.4 billion) and Smithfield of the WH Group (EUR 1.1 billion) are second and third in the list. Of the segments researched, next to chicken meat producers, Rabobank also invested a lot in restaurant companies.

Due to its large loans to Carrefour, ING Group invested most in the food retailers segment. ING Group financed seven companies with a total value of EUR 1.4 billion and this amount represents 15% of Dutch finance to all selected companies. The remaining 7% of Dutch finance is on the account of ABN Amro Bank, financing four companies with a total value of EUR 700 million. The largest part of the identified financed went to the chicken meat segment, and more specifically to one company, the Dutch chicken meat producer Plukon (EUR 563 million). Note that this latter company is also active in segments with higher welfare standards.

Standards and initiatives

According to Fair Bank Guide, financial institutions should expect companies to whom they provide finance or investments, to comply with widely supported international standards and initiatives. This should be done by formulating finance and investment policies as well as through the implementation of these policies. In the case of animal welfare, such widely supported principles do exist, but widely favoured international minimum norms that are species specific are unfortunately lacking. As standard-setting allows for specific, ambitious, realistic and time-bound objectives, which can be monitored and evaluated, this report therefore explored the expectations of society towards companies regarding animal welfare and translated this into minimum welfare requirements. Banks, having commit to general principles on animal welfare, should also uphold these minimum welfare requirements with regards to broilers and pigs producing companies.

It appears that the welfare problems of broilers and pigs in industrial livestock production cannot adequately be addressed by just adhering to legislative standards, whilst international tools like the *OIE standards* and the *IFC Good Practice Note on animal welfare* can be useful, but are too open for interpretation to safeguard animal welfare standards at a level that fulfils responsible business conduct. Moreover, enforcement of legislation or OIE-standards is either problematic or absent.

At the same time, transitioning to better animal welfare in food supply chains goes step by step. If too drastic changes cannot be accommodated by the dominant food system, they will fail – and consequently the animals are not helped. Consequently, broiler and pig welfare requirements of private standards, that have been developed in a series of countries and are industry led or initiated by NGOs, are realistic to achieve and modestly ambitious compared to even higher welfare standards (like organic), are expected to bring important improvements.

For broiler chickens this includes lower stocking densities, selection of specific breeds and enrichment at housing systems. For pigs this encompasses inter alia enrichment and the phasing out of the use of crates and mutilations. Most companies with which Dutch banks have financial relationships have not committed to these higher standards, or only to a very limited degree.

Recommendations

Taking into account current animal husbandry practices, the Dutch Fair Bank Guide therefore calls upon the banks financing industrial livestock production to adhere to a number of minimal welfare requirements comparable with the GAP Step 1 requirements and the welfare specifications of Dutch retailers. Furthermore, the Dutch Fair Bank Guide recommends them to do this by:

1. Making a public commitment that not only adheres to general principles of animal welfare but further details the expectations from companies, reflecting the minimum requirements.
2. Supporting clients and investee companies in their efforts towards a transition to using industry standards that bring animal welfare practices in the industrial livestock sector to a higher level, starting with the level as laid down in the minimum requirements.
3. Setting clear and time-bound targets to achieve the minimum requirements by clients and the industry as a whole.
4. Considering the minimum requirements as conditions in the contracts for loans and project finance.
5. Ending financial relationships with companies that do not show any change of behaviour within a given timeframe after having been engaged with by the bank.

6. Banning investments in building housing facilities using gestation crates for sows and broiler chickens in cages with immediate effect, and instead invest in building facilities with enriched sow group housing and open floor systems for broilers.

Samenvatting

In de periode 2012 - 2017 hebben Nederlandse banken EUR 8,8 miljard geinvesteerd in ’s werelds grootste bedrijven in kippen- en varkensvleessector. In meer of mindere mate, zijn deze direct of indirect betrokken bij grootschalige inbreuken op dierenwelzijn. Deze inbreuken worden veroorzaakt door overbevolking (hoge bezettingsdichtheid), ontoereikende huisvesting en omgevingen, verminkingen, selectieve teelt, het gebruik van kooien, restrictieve voeding, ruwe behandeling en ontoereikende slachtmethoden. De dieren ervaren pijn, stress en verveling. Ze zijn niet in staat om hun natuurlijke gedrag te uiten - of zijn daarin ernstig beperkt. Zodoende zijn ze vatbaarder om te leiden aan problemen aan de poten, ademhalingsproblemen, infectieziekten, verwondingen enzovoort. Bovendien hebben verschillende van deze bedrijven, waaronder Tyson Foods, de afgelopen jaren het nieuws gehaald door onderzoeken die grove dierenmishandeling onthulden.

De industriële, of intensieve, veehouderij volgt een business model dat gebaseerd is op grootschaligheid, met als doel om een maximale winst te behalen. Het welzijn van dieren staat voortdurende op het spel. Omdat dit risico systematisch is en inherent aan de eigenschappen van de sector, worden in dit rapport de financiële relaties van Nederlandse bankgroepen met 's werelds grootste geïndustrialiseerde kippen- en varkensvleesproducenten en -verwerkers, supermarkt- en restaurantketens aan de kaak gesteld. Tabel 1 presenteert de bedrijven die zijn geselecteerd voor dit onderzoek.

Tabel 1 Overzicht van de bedrijven die voor dit onderzoek geselecteerd zijn, gesorteerd volgens segment van de waardeketen

Producenten en verwerkers van kippenvlees	Producenten en verwerkers van varkensvlees	Supermarkten	Restaurantketens
Pilgrim's en JBS Aves Brazil (JBS)	Smithfield (WH Group)	Wal-Mart Stores	Subway
Tyson Foods (inclusief US en Mexico operations)	CP Group	Schwarz Unternehmenstreuhand	McDonald’s
BRF	Thai Foods Group	Tesco	KFC and Pizza Hut (Yum! Brands)
Guangdong Wen's Food Group	Triumph Foods	Carrefour	Burger King (Restaurant Brands International)
Industrias Bachoco	Cooperl Arc Atlantique	Aldi Einkauf	Domino’s Pizza Group
New Hope Liuhe (New Hope Group)	Danish Crown		
LDC	Tönnies		
Plukon Food Group	Yurun Group		
PHW Group	Vion Food Group		
2 Sisters Food Group	Hormel Foods		

Middels het financieren van bedrijven in de industriële veehouderij, worden bankgroepen deel van de schendingen van dierenwelzijn die voorkomen in deze sector. Het is belangrijk dat bankgroepen zich realiseren dat dierenwelzijn een van de zogenaamde *environmental, social and governance (ESG) issues* is, die meegewogen moeten worden bij het maken van beslissingen omtrent het financieren van deze bedrijven, zowel wat betreft risico’s en kansen. Dit praktijkonderzoek heeft daarom als doel de financiële relaties te laten zien tussen de zeven bankgroepen die door de Eerlijke Bankwijzer geselecteerd zijn - ABN Amro Bank, De Volksbank (ASN Bank en SNS Bank), ING Bank, NIBC, Rabobank, Triodos Bank en Van Lanschot – en de geselecteerde bedrijven, middels bedrijfsfinanciering (leningen en andere vormen van krediet en assistentie bij de uitgifte van aandelen en obligaties) en projectfinanciering.

Financiële relaties

In de periode van 2012 tot en met 2017, is er door banken wereldwijd EUR 282 miljard geïnvesteerd in de geselecteerde veehouderijbedrijven en vleesproducenten, en Nederlandse banken hebben hier een relatief groot aandeel in. Nederlandse banken staan met EUR 8,8 miljard, of 3% van de totale aangetoonde financieringsrelaties, op de zevende plaats, na, onder andere, banken uit de Verenigde Staten, het Verenigd Koninkrijk en Frankrijk. In dit onderzoek zijn uiteindelijk financiële relaties aangetoond van drie van de zeven beoordeelde Nederlandse bankgroepen, met zeven kippenvleesbedrijven, acht varkensvleesbedrijven, vier supermarktketens en vier restaurantketens: in totaal 23 van de 30 geselecteerde bedrijven. De bevindingen zijn samengevat in Tabel 2.

Tabel 2 Financiering door Nederlandse banken van de geselecteerde bedrijven, per waardesegment (in miljoen EUR)

Waardesegment, bedrijf	**ABN Amro**	**ING Group**	**Rabobank**	**Totaal**
Kippenvlees				
BRF		47	47	94
Pilgrim's en JBS Aves (JBS)		187	1.404	1.591
New Hope Group			18	18
Plukon Food Group	563			563
Tyson Foods	45	44	1.904	1.994
Totaal Kippenvlees	*608*	*278*	*3.374*	*4.259*
Varkensvlees				
Charoen Pokphand Group			350	350
Triumph Foods			71	71
Smithfield (WH Group)		147	1.097	1.245
Vion Food Group	5			5
Totaal Varkensvlees	*5*	*147*	*1.518*	*1.670*
Restaurant ketens				
Domino's Pizza Group			57	57
McDonald's		140	472	612
Restaurant Brands International			805	805
Yum! Brands		45	465	509
Totaal Restaurantketens		184	1.799	1.983
Supermarktketens				
Carrefour		736		736
Schwarz Unternehmenstreuhand	45		150	195
Totaal Supermarktketens	*45*	*736*	*150*	*931*
Totaal	**658**	**1.345**	**6.840**	**8.843**

Rabobank is verreweg de grootste financier. De bank heeft twaalf bedrijven gefinancierd met een totale waarde van EUR 6,8 miljard, wat overeenkomt met 77% van de aangetoonde financiering door Nederlandse banken. Kipproducent Tyson Foods is de grootste lener, met een waarde van EUR 1,9 miljard, en JBS (EUR 1,4 miljard) en Smithfield van de WH Group (EUR 1,1 miljard) komen op de tweede en derde plaats. Van de segmenten die onderzocht zijn, heeft Rabobank, behalve in producenten van kip, ook veel geïnvesteerd in restaurantketens.

Vanwege haar grote leningen aan Carrefour, heeft ING Groep het meest geïnvesteerd in het supermarktsegment. ING Groep heeft zeven bedrijven gefinancierd met in totaal EUR 1,4 miljard, een bedrag dat overeenkomt met 15% van de Nederlandse financiering van alle geselecteerde bedrijven. De laatste 7% van de Nederlandse financiering komt voor rekening van ABN Amro Bank, die vier bedrijven financiert met in totaal EUR 700 miljoen. Het grootste deel van de financiering ging naar de kippenvleessector, en in het bijzonder naar één bedrijf, de Nederlandse kippenvleesproducent Plukon (EUR 563 miljoen). Daarbij moet worden opgemerkt dat dit bedrijf ook actief is in de segmenten met hogere welzijnsstandaarden.

Standaarden en initiatieven

Volgens de Eerlijke Bankwijzer moeten financiële instellingen van de bedrijven, die zij financieren of waarin zij investeren, vragen dat zij handelen in overeenstemming met breed gedragen internationale standaarden en initiatieven. Dit zou gedaan moeten worden door zowel het formuleren van financierings- en investeringsbeleid, als door de implementatie van dit beleid. Op het gebied van dierenwelzijn bestaan zulke breed gedragen principes, maar het ontbreekt helaas aan wijdverbreide internationale minimum normen die soortspecifiek zijn. Omdat normen het mogelijk maken om specifieke, ambitieuze, realistische en tijdgebonden doelen vast te stellen, die gemonitord en geëvalueerd kunnen worden, zijn voor dit rapport de verwachtingen die de maatschappij heeft van bedrijven met betrekking tot dierenwelzijn, onderzocht en vertaald in minimumeisen voor dierenwelzijn. Banken, die zich aan algemen principes voor dierenwelzijn gecommitteerd hebben, zouden ook deze minimumeisen voor dierenwelzijn moeten naleven als het gaat om pluimvee- en varkensbedrijven.

Het blijkt dat de welzijnsproblemen van vleeskippen en varkens in de intensieve veehouderij niet voldoende gewaarborgd worden wanneer bedrijven slechts wettelijke standaarden hoeven na te leven, terwijl internationale richtlijnen zoals de *OIE standards* en de *IFC Good Practice Note on animal welfare* te veel ruimte voor interpretatie bieden om een niveau van dierenwelzijn te garanderen dat voldoet aan de verwachtingen ten aanzien van verantwoord ondernemen. Bovendien, de handhaving van wetgeving of OIE-standaarden is ofwel problematisch of afwezig.

Tegelijkertijd gaat de transitie naar voedselketens met meer dierenwelzijn stap voor stap. Als al te drastische veranderingen niet gefaciliteerd kunnen worden door het dominante voedingssysteem, zullen ze niet doorgaan – en zijn de dieren niet geholpen. Daardoor kan worden verwacht dat vleeskuiken- en varkenswelzijnseisen van private standaarden die in een aantal landen ontwikkeld zijn door de markt, en geleid door marktpartijen uit de industrie dan wel geïnitieerd door NGO's, realistisch en bescheiden ambitieus zijn in vergelijking met nog hogere welzijnsnormen, belangrijke verbeteringen tot stand brengen.

Voor vleeskuikens omvat dit lagere bezettingsdichtheden, selectie van bepaalde rassen en verrijking van de stallen. Voor varkens omvat dit onder andere verrijking en het uitfaseren van het gebruik van kisten en verminkingen. De meeste bedrijven waarmee Nederlandse banken financiële relaties hebben, hebben zich niet of slechts in zeer beperkte mate aan deze hogere normen gebonden.

Aanbevelingen

Rekening houdend met de huidige praktijken in de veehouderij vraagt de Eerlijke Bankwijzer de banken die de industriële veehouderij financieren om zich te houden aan een aantal minimumeisen voor dierenwelzijn, vergelijkbaar met de GAP Step 1 eisen en de welzijnsspecificaties van Nederlandse supermarkten. De Eerlijke Bankwijzer beveelt hen aan om dit als volgt te doen:

1. Door een publieke verplichting aan te gaan die niet alleen de algemene principes van dierenwelzijn onderschrijft, maar die de verwachtingen van bedrijven verder specificeren en daarbij de minimumeisen voor dierenwelzijn reflecteren.
2. Door bedrijven (zowel klanten als deelnemingen) te ondersteunen bij hun inspanningen voor een transitie naar het gebruik van standaarden voor de industrie, die het dierenwelzijn in de intensieve veehouderij naar een hoger niveau brengen, te beginnen met het niveau zoals neergelegd in de minimumeisen.
3. Door duidelijke en tijdgebonden doelen te stellen waarmee de minimumeisen voor dierenwelzijn door zowel klanten als de sector zullen worden behaald.
4. Door te overwegen om de minimumeisen als voorwaarden op te nemen in contracten voor leningen en projectfinanciering.
5. Door het beëindigen van financiële relaties met bedrijven die geen enkele verandering van gedrag laten zien binnen een bepaald tijdsbestek, nadat de bank met hen in gesprek is gegaan.
6. Door accuut te stoppen met investeringen in de bouw van huisvesting met boxen voor drachtige zeugen en kooien voor kippen, en in plaats daarvan te investeren in de bouw van groepshuisvesting voor zeugen en open vloersystemen voor vleeskuikens.

Introduction

Early December 2017, US media reported about disturbing undercover footage, revealing gross animal cruelty on a broiler production unit affiliated with Tyson Foods, Virginia.[1] It was not the first time Tyson Foods was linked to cruel practices, on the contrary. Similar footage appeared in August 2016.[2] A year earlier, in august 2015, after the release of footage that was shot at a farm contracted by Tyson, both Tyson and McDonalds ended their contracts with the farm.[3] In June 2017, the Humane Society United States revealed atrocities at a production location of Pilgrim's JBS.[4] Given that these undercover investigations are extremely rare, these findings are more likely to be the tip of the iceberg than an unfortunate coincidence.

While the news about Tyson in 2015 was reported by NOS, the main news service in the Netherlands, Dutch media remained silent this time: it seemed an American affair, not of great interest for the Dutch public. But was it? This report shows the opposite. In fact, most Dutch citizens were linked to this scandal via their finance: all major Dutch banks have invested in Tyson Foods in recent years. Money from Dutch consumers. This example raises questions about the links between Dutch banks, corporate social responsibility and animal welfare – questions this report explores.

Banks offer their clients a wide range of financial services with which they enable companies, governments, and private clients to acquire capital for all kinds of activities. This can encompass activities that have positive and or negative (side) effects – on people, the environment, and animals. This is perhaps never more apparent as in the field of industrial animal production.

Investments in agriculture have grown in recent years and are expected to continue to grow. Commenting on this trend, the OECD notes: 'As investments in the sector have grown, so too has the awareness that they need to be responsible.'[5] This is a joint responsibility. Hence, the Guidance for Responsible Agricultural Supply Chains – developed by OECD and FAO to facilitate responsible business conduct, - is not only aimed at enterprises directly working within agricultural production, but also at other stakeholders involved through business relationships, such as investment funds and banks.[6]

This is for good reason and the Dutch banking sector is a case in point. Global finance is a big driver for how agriculture is being developed and how food systems take shape. Annually, billions of euro's are invested in livestock and meat production by banks globally, and Dutch banks contribute to this with a relatively large share.[7] Especially Rabobank stands out as the most prominent investor in livestock and meat production in the global banking sector.[8] A corporate social responsibility (CSR) sector risk assessment commissioned by the Dutch government and published by KPMG in 2014 identified the Dutch financial sector as running considerable animal welfare risks.[9]

To a certain extent, Dutch banks already show awareness of the issue. On a general policy level, all major banks now have animal welfare policies in place. The Fair Bank Guide has reported steady progress over the past years in this regard. Still, ample room for improvement remains: 4 out of 7 of the assessed banking groups score 6 or lower.[10] Furthermore, the *Dutch Banking Sector Agreement (IMVO Convenant bancaire sector)* signed in 2016 with the Dutch government, trade unions and NGO's omits animal welfare.[ii]

[ii] What was meant as a CSR agreement was limited by the banks to an agreement on human rights, despite the sector risk analysis of KPMG (2014) which identified a series of CSR risks for the financial sector beyond human rights. This not only disregards the governmental intentions behind the CSR agreement process, but also the ambition expressed at the National Food Summit in 2017 to become internationally known by our high level of animal welfare.

But more importantly, the existence of even the most progressive policy does not guarantee effective implementation. Several previous case study reports by the Fair Finance Guide show a discrepancy between animal welfare policy and actual investment behaviour by banks. For instance, all major Dutch banks – ING, Rabobank, ABN-Amro – scored poorly (score of 1 out of 10) on the issue of livestock transport, and therefore substantially below their general animal welfare policy scores.[11] Similarly, both ABN Amro Bank and Rabobank signed the Covenant Grazing (Convenant weidegang), a commitment to at least maintain the level of grazing of Dutch dairy cows to the level of 2012, but neither bank stopped investing in full indoor dairy systems.[12] Not surprisingly, the level of grazing has gone down further since.[iii]

Still, awareness within the investment community that animal welfare is one of the environmental, social and governance (ESG) issues that need to be considered as part of mainstream practices is increasing, both in terms of risks and opportunities: analysing animal welfare practices improves risk management, unlocks investment opportunities and guides active ownership.[13] Or, as the OECD notes: "failing to consider long-term investment value drivers, which include environmental, social and governance issues, in investment practice is seen to be a failure of fiduciary duty". [14] This also holds true for animal welfare.

The question that the Fair Finance Guide International (FFGI) network raises is, therefore, to what extent financial institutions support, through their financial services, activities that contribute to a socially just and sustainable world - in this case, regarding animal welfare within industrial livestock production. According to FFGI, financial institutions should expect companies to whom they provide finance or investments, as well as their suppliers, to comply with widely supported international standards and initiatives. This should be done by formulating policies, as assessed in the Fair Finance Guide International policy updates, as well as through the implementation of these policies. In the case of animal welfare, such widely supported principles do exist (most notably the 'five freedoms', see below), but widely favoured international minimum norms that are species specific are unfortunately lacking. The latter adds to the need for banks to take their responsibility. More on this in Chapter 3.

Banks are intermediaries in the money and capital markets: they ensure that the capital of, inter alia, private clients and institutions such as pension funds with money to invest, is allocated to (other) entities who need money to finance their activities. Commercial banks use the savings of individuals, organisations, institutions and companies to provide loans and other financial products to other individuals, organisations, institutions and companies, including actors in the meat supply chain such as production companies, feed, genetics and equipment companies, farmers, meat processors, transport companies, brand manufacturers, retailers, and food service chains and restaurants.

All monies that have been placed with a bank in current (checking) and savings accounts by private clients, institutions, and companies, may, in principle, be used by the bank for all possible bank investments: from mortgage loans to private clients to investments in international companies and financial derivatives. This means that someone who has placed money in a current checking or savings account at a bank will not necessarily know what his or her money is used for. As banks are free to invest the monies of savers at their own discretion, it is of great importance that banks provide insight into what policy is maintained for its investments.

[iii] In 2012, the start of the Covenant Grazing, the percentage of cows with access to pasture (at least 120 days a year, 6 hours a day) was 70%. In 2015, this had decreased to 65%. To compare: in 2001, 90% of Dutch cows had access to grazing. Dutch banks let this happen. Statistics: CBS, https://opendata.cbs.nl.

Through their lending and financing activities, banking groups become a part of the animal welfare infringements that happen in industrial farming systems - not just scandals like at Tyson Foods' farms that feature in the media, but also the widespread infringements, due to the low welfare requirements that are standard in mainstream commercial animal production. This case study therefore aims at establishing financial links between the seven Dutch banking groups selected for the Fair Bank Guide - ABN Amro Bank, De Volksbank (ASN Bank andn SNS Bank), ING Bank, NIBC, Rabobank, Triodos Bank and Van Lanschot -and chicken and pig meat producing companies, retailers and restaurants.

The companies selected for this case study are the world's largest industrialised chicken and pig meat producers and processors, retailers and restaurants. They run high animal welfare risks - as is described in Chapter 1 - and corresponding reputational and financial risks. Their production or sourcing is typically according to mainstream industry practice, with low minimum welfare requirements. Coincidence or not, as with Tyson Foods, many of them have been involved in animal welfare scandals in recent years. Examples include Pilgrim's, Smithfield and Carrefour.[iv, 15]

This case study will consider the financial relationships between the banking groups and these companies, regarding corporate credits (loans and other forms of credit, and underwriting of share and bonds issuances) and project finance. While banks also use asset management services for their own account or offer asset management for the account of clients (consumers, pension funds and other entities) and invest in shares or bonds of the selected companies, the scope of this case study is limited to corporate credits and project finance because this is the core activity of the banking groups. The methodology and results for determining these relationships are described in 0.

In Chapter 3, the available international standards and initiatives for animal welfare are analysed and compared. It is also discussed how they can help banks to address the issue and what to expect from the companies they finance.

Chapter 4 draws conclusions from the first three chapters and provides recommendations for the banks. A summary of the findings of this report can be found on the first pages of this report.

[iv] In June 2017, the Humane Society United States revealed atrocities at a production location of Pilgrim's pride and caught Carrefour selling dog meat in Chinese sypermarkets. Smithfield also has a dubious record of animal cruelty scandals, the most recent one breaking in autumn 2017 at a Circle Four Farms for pig production.

Chapter 1 Animal welfare and industrial livestock production

1.1 Animal welfare in industrial livestock production

Industrial or intensive livestock production follows a business model based on exploiting economies of scale. The main objective of industrial livestock production is to maximize profitability based on: [16]

- efficiency in the use of resources (in particular feed resources) by animals with fast growth and high feed conversion
- finding cheaper feed resources wherever they are sourced; and
- intensifying animal density per unit of area (per square metre of buildings).

A typical industrial system therefore can be characterised by highly specialised genetic selection (for faster growing animals), high stocking densities (to increase productivity per square meter of building) and a lack of natural light and environmental enrichment (to limit costs). They have a very high number of animals per worker, running in the thousands for pigs or even tens of thousands for broiler chickens. Moreover, industrial livestock production is therefore completely dependent on external inputs, including feed and fossil fuels and virtually 'landless'.

Industrial livestock production is very well integrated into commodity supply chains in terms of both inputs and outputs, including through international trade. Parts of the same animal reared in a stall in Latin-America may very well end up on plates in Europe, Africa and China. It therefore steers towards the lowest possible production costs and towards standardization of products and sanitary rigour. As a consequence, technologies and management practices used are surprisingly uniform across the world.

It should be noted that the industrial model is not the only one, nor that it necessarily constitutes a preferable way of food production. Take for example the Principles for Responsible Investments in Agriculture and Food Systems of the United Nations' Committee on World Food Security (UN CFS). They specifically highlight the importance of smallholders, including family farmers. The underlying reason for this is that smallholder, mixed farming systems provide the largest contribution to world food security. It is estimated that smallholders produce 80 per cent of the food consumed in Asia and sub-Saharan Africa. [v, 17]

Consequently, the UN CFS underline that it is particularly important that the capacity of smallholders to invest be strengthened and secured. As is stated: "Responsible investment includes priority investments in, by, and with smallholders, including those that are small-scale producers and processors, pastoralists, artisans, fishers, communities closely dependent on forests, indigenous peoples, and agricultural workers. To strengthen and secure smallholders' own investments, it is also necessary to engage with and promote responsible investment by other stakeholders [...]"[18]

Since industrial livestock production systems often replace smallholders - pushing them out of the market and/or disrupting local markets – it is a pertinent question which, if any, investment in industrial livestock production is conducive to strengthen and secure smallholders' own investments and hence world food security. Given negative, not seldom devastating impacts of industrial livestock agriculture on the environment - including climate change, biodiversity and public health, this complex question becomes ever important. It is linked to the increasingly prominent issue of whether in many cases plant-based (or in-vitro based) alternatives for industrially produced animal protein are in fact more desirable.[19]

This research is limited to industrial livestock production pertaining to animal welfare as such. The issue which model(s) of agriculture offer(s) the most promising opportunities for the aim to sustainably feed the world, falls outside the scope of this research. However, financial institutions are very much invited to explore it in much more profound ways than hitherto has been the case.

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[v] Note that not all production is conducive to food security. Food security is not just about production (availability), but also about providing livelihoods and income (access), a way to diversify diets (utilization) and proving a buffer to price volatility, market related and other shocks (stability).

Animals are – along with people – sentient beings that deserve respect and protection. This is reflected in the ‘Five Freedoms’. Originally put forward by the United Kingdom (UK) Farm Animal Welfare Council, these principles underpin international dialogue on animal welfare and are reflected in guidelines, recommendations, codes, and legislation prepared by countries of Asia, Australasia, the European Union, and North America, and by the World Organisation for Animal Health (OIE), to address animal welfare issues. The Five Freedoms are often taken as a principle for preparing standards on animal welfare. The five freedoms may be applied to all animals, but are especially pertinent for farm animal welfare.[20]

An animal has to live free from:[21]

1. Hunger, thirst, and malnutrition (direct access to fresh water and solid food to stay healthy and strong).
2. Any thermal or physical discomfort (having suitable, comfortable housing that offers tranquillity).
3. Pain, injury, and diseases (by means of prevention or diagnosing and treating quickly).
4. Fear and chronic stress (by circumstances that avoid suffering and stress).
5. The denial of natural (species-specific) behaviour (by supplying sufficient space, sufficient and proper provisions and company from animals of the same species).

The Five Freedoms are welfare principles rather than detailed instructions on how to take care of animals. They emphasize that the welfare of an animal includes its physical and mental state; that good animal welfare implies both fitness and a sense of well-being; and that any animal kept by humans must, at least, be protected from unnecessary suffering. As a consequence , the Five Freedoms also have received criticism as being too focused on negative states of welfare and too little on positive welfare.[22]

Increasing attention for – and concern about – animal welfare is reflected in the outcomes of the 2016 Eurobarometer on attitudes towards animal welfare, at the request of the European Commission.[23] More than nine in ten EU citizens believe it is important to protect the welfare of farmed animals (94%), whereas 82% of Europeans believe the welfare of farmed animals should be better protected than it is now. Furthermore, no less than 93% agrees that imported products from outside the EU should respect the same animal welfare standards as those in the EU, out of which 62% strongly agrees.

Given these outcomes and trends, animal welfare can be viewed not just as an important ethical value to which a company should adhere, but also as an important matter to create business value and to become future-proof. Good animal welfare practices are more and more indispensable for reputational risk management, accountability towards customers and for seizing opportunities to produce higher quality products, access new markets and customers and to expand existing markets by being ahead of competitors. Furthermore, in many cases, good animal welfare practices can help improve efficiency and food quality.[24]

1.2 Animal welfare in industrial broiler farming

The meat chicken, the so called ‘broiler’, is the most farmed land animal in the world. More than 70 billion farm animals are reared every year (excluding fish) and about 85% of these are broilers.[25] More than 40 billion of these chickens live in low-welfare, industrial systems. And this number is expected to rise. If unchecked, global poultry production is expected to reach 124 million tons by 2020, an increase of 25% within a 10-year timeframe. In South Asia poultry demand is even expected to increase more than sevenfold by 2050, mainly driven by increasing consumption in India, which will soon be the world’s most populous country.[26]

This increase in production is expected to almost solely take place by the growth of industrial production facilities – which may also take-over much of current backyard poultry farming. Currently, the biggest producing countries are the US, China and Brazil – together responsible for 44% of global broiler production. Uniformity and market power concentration of global industrial broiler production is illustrated by the fact that only three genetics companies control the breeds used by the vast majority (95%) of industrial broiler farms.[27]

0 presents the selected largest chicken meat producing companies. For more background on the selection criteria and on the selection of retailers and restaurants using chicken meat, please see Table 3

Table 3 Selected chicken meat companies

No.	Company	Birds slaughtered per year (in millions)	Country	Public/Private
1	Pilgrim's and JBS Aves Brazil (JBS)	4,274	US and Brazil	Private
2	Tyson Foods (including US and Mexico operations)	2056	US	Public
3	BRF	1664	Brazil	Public
4	Guangdong Wen's Food Group	714	China	Public
5	Industrias Bachoco	702	Mexico	Public
6	New Hope Liuhe (New Hope Group)	700	China	Private
7	LDC	370	France	Private
8	Plukon Food Group	354	Netherlands	Private
9	PHW Group	350	Germany	Private
10	2 Sisters Food Group	317	UK	Private

Source: Plantz, B. (2016), "2015 World's Top Poultry Companies", *Poultry International*, volume 54(10), p. 9.

By nature, chickens are forest dwellers: they are a domestic subspecies of the red jungle fowl that is native to Asia. Chickens live in flocks with a naturally sophisticated dominance hierarchy, the proverbial 'pecking order'. Chickens are able to remember and recognise over 100 other individuals and perform over 30 types of call, including calling their young, warning of danger and alerting others to the presence of food. Unlike young human children, chickens are able to comprehend that when an object is taken away and hidden from them, it still exists. Moreover, they can learn how to obtain food by social learning.[28]

Chickens are naturally playful and spend much of the day foraging: captive jungle fowl spend approximately 60-90% of daylight hours foraging. They also like to dust-bathe. This behaviour serves several functions including feather maintenance and parasite control. Flying behaviour is normally limited to roost high up in trees, to escape predators or to establish dominance.

Within industrial poultry production, chickens (broilers) are bred by crossing three or four grandparental lines to achieve fast growth and efficient feed conversion. As a result of breeding, housing conditions and management practices, the Five Freedoms are often violated:

- **Freedom from hunger, inappropriate feed and thirst**

  Broiler breeders (the parental animals) often suffer from hunger: to prevent fast growth from harming reproductive functions, they are put on a severely restrictive diet.[29] Moreover, it is standard practice that broiler chicks do not get feed and water within the first 24-72 hours after hatching, causing hunger, thirst, and higher mortality rates.[30] Furthermore, the quality of drinking water can pose concerns. For examples, in The Netherlands, in 2013, the Animal Health Service (Gezondheidsdienst voor Dieren) classified 22% of the drinking water in poultry production as 'not suitable' and another 12% as 'less suitable'. [31]

- **Freedom from discomfort**

  Due to fast growth, broilers not seldom have locomotion problems and are very susceptible to heat stress.[32] High ammonia and dust levels are another common issue, causing respiratory discomfort.[33] Broiler breeders can suffer from chicken mite. Transport and slaughter pose additional, often severe risks.[34]

- **Freedom from pain, injury and disease**

  Due to several factors, including fast growth, broilers are at high risk of a range of painful disorders, including lameness, footpad dermatitis, breast blisters, joints and skeletal disorders and heart and lung failure.[35] Infectious diseases like avian flu regularly plague stocks, leading to (preventive) mass cullings. Furthermore, broiler breeders are often subject to mutilations: the dubbing of combs and the trimming of beaks and spurs.[36] Slaughter methods often fail to render chickens unconscious, resulting in countless birds dying in pain – and even cooked alive.[37] Fire safety measures are often lacking or inadequate, resulting in large numbers of birds being destroyed by fire. Poor protection against extreme weather events and floods may be an additional source of severe pain and injury (and stress).

- **Freedom from fear and chronic stress**

  Limited space and barren housing conditions promote the occurrence and duration of negative social interactions and corresponding social stress. Catching, transport and slaughter cause fear. Rough handling, cramped transport conditions and upside-down shackling for slaughter are widespread. Aggressive mating or semen collection/artificial insemination of broiler breeders is an additional source of fear and stress within industrial poultry production.[38]

- **Freedom to express natural behavior**

  Highs stocking densities, genetic selection, monotonous housing conditions and an unnatural lighting regime impair natural behavior, activity and resting patterns.[39] Foraging activity is substantially less than under semi-natural circumstances. Parent-infant interaction is impossible and the same holds true for establishing social hierarchies: chickens are hatched mechanically and live on farms by the tens or hundreds of thousands. Furthermore, abnormal behavior, excessive feather packing and cannibalism, is an issue for broiler breeders. Finally, the freedom to express natural behavior is constrained by the limited time these birds are allowed to live. Broilers are usually killed at the age of 35-42 days, well before reaching maturity. Under semi-natural circumstances, chickens can easily become 8-10 years.

1.3 Animal welfare in industrial pig farming

Each year, globally, 1.4 billion pigs are reared and slaughtered for their meat, about two-thirds of them in intensive systems. Half of the world's pigs are 'produced' in China, many still by smallholders rather than in intensive farms, although this is changing rapidly and the government is pushing hard for vertically integrated, intensive pork production. Other big pork producing countries, although far behind China, are the US, Brazil, Germany, Spain, Russia and Vietnam. The FAO projects that the world's pig production will grow on average with 0.8% per annum until 2030. As in poultry production, market power is increasingly concentrated. In contrast, and for religious reasons, pig farming in Muslim countries is relatively minimal, if not absent. [40]

Table 20 presents the selected largest pig meat producing companies for this study. For more background on the selection criteria and on the selection of retailers and restaurants using pig meat, please see 0

Table 4 Selected pig meat companies

No.	Company	Heads slaughtered per year (in millions)	Number of sows (*1,000)	Country	Public/Private
1	Smithfield (WH Group)	48.3	1,140	United States	Private
2	CP Group		544	Thailand	Private
3	Thai Foods Group		540	Thailand	Public
4	Triumph Foods		385	United States	Private
5	Cooperl Arc Atlantique		250	France	Private
6	Danish Crown	22		Denmark	Private
7	Tönnies	17.5		Germany	Private
8	Yurun Group	16.5		China	Public
9	Vion Food Group	15.7		Netherlands	Private
10	Hormel Foods	13		United States	Public

Source: Plantz, B. (2016), "World's 40 leading pig producers and processors", *Pig International*, volume 46(7): 6-17., p. 6.

Domestic pigs are descendants from wild boars, a species first domesticated about 9,000 years ago. However, cognitively and behaviorally modern pigs are not very different from their ancestors, since selective breeding has been primarily focused on production traits like fast growth and reproduction.[41] Pigs are very social and intelligent animals with a highly developed sense of smell. Studies of pig cognition, emotion, and behavior show that the ethological traits inherent in pigs are similar to those of dogs and chimpanzees. For example, research suggests that pigs possess a certain level of numerical understanding and have the ability to take the perspective of another individual (known as 'Machiavellian Intelligence').[42] As with chickens, breeding and farming conditions within industrial pork production are often at odds with the five freedoms:

- **Freedom from hunger, inappropriate feed and thirst**

  Many sows are subjected to restricted feeding regimes (to the extent that their behaviour is affected).[43] By nature, pigs spend a considerable time of the day foraging for a variety of different foodstuffs. By contrast, in intensive pig farming, the animals get uniform feed only once or twice a day, which limits eating behaviour to a bare minimum. Furthermore, access to drinking water during long distance transport is often problematic.[44]

- **Freedom from discomfort**

  Due to barren housing conditions, including hard, often wet and slippery slatted floors, pigs generally have no oppurtunity to comfortably lay down or nest and are hindered in their locomotion – which is amplified by genetic selection on fast growth. Sows may even show pressure ulcers.[45] Poor air quality (notably high levels of ammonia) often result in ocular, olfactory and respiratory discomfort. Transport, not seldom over long distances, and problematic slaughter practices are an additional source of (severe) discomfort.

- **Freedom from pain, injury and disease**

  Routine mutilations are standard practice in most countries, including castration, tail docking and teeth clipping. Lack of enrichment and ensuing boredom and aggression, is often cause of injuries. Substantial percentages of animals – up to 60% in growing pigs - suffer from gastric ulcers.[46] Lameness, osteochondrosis (leg weakness) and leg lesions are widespread. In fact, lameness is a common cause for culling sows second only to reproductive 'failure'. Infectious diseases like swine fever pose additional risks. In some countries outbreak containment measures include mass culling of healthy animals. On top of this, sufficient safety measures are often lacking, posing relatively high risks for animals dying by fires and other calamities.[47]

- **Freedom from fear and chronic stress**

  Fearfulness is affected by type of housing.[48] Due to very limited space and barren conditions, the occurrence and duration of negative social interactions (and corresponding social stress) is much higher in intensive systems than in extensive systems.[49] Handling, transport and slaughter practices often cause acute fear and stress.[50]

  Especially worrying in this respect is CO_2 gassing of pigs. Many large pig producers – including Smithfield, Tyson Foods. Pilgrim's JBS and Vion Foods – use this method for stunning. It is beneficial for efficiency and meat quality, but not for the animals involved. Most companies publicly deny negative welfare impacts. Only Vion Foods has shown bravery and leadership by letting the process be filmed – the result of which, carefull commented upon by welfare scientists, has helped to aggrevate concerns to the extent that, in 2015, Dutch Parliament adopted a motion to phase out this slaughter method in The Netherlands.[51]

- **Freedom to express natural behaviour**

  High stocking densities severely limit behavourial space. Barren housing conditions impede social, exploring and rooting behaviour as well as wallowing. Pigs – and especially sows – in intensive systems are markedly less active than pigs in semi-natural environments.[52] Stereotypical (abnormal) behaviour such as sham chewing and bar biting is not uncommon amongst individually confined sows. Nesting behaviour by pregnant sows is thwarted. Finally – but less extreme as in the case of broilers – the time allowed to pigs to express natural behaviours is very limited: the typical slaughter age is six months, the age of reaching their adolescence.

  Note that progress is being made regarding the housing of sows. Indivudal lifelong confinement in gestation crates has been greatly restricted within the EU (since January 2013 "Member States shall ensure that sows and gilts are kept in groups during a period starting from four weeks after the service to one week before the expected time of farrowing")[53], whilst a series of companies have committed to phasing out this practice before the mid 2020s, including BRF and Nestlé.[54] However, this doesn't necessarily mean that sows are group housed in a sufficiently enriched environment to enable exploring behaviour. Moreover, commitments to outphasing farrowing crates are rare. In the same vein, enrichment for fattening pigs remain an enormous challenge, even for production within the EU.

Chapter 2 Financial relationships

2.1 Methodology

2.1.1 Types of financing

The banks financing the selected companies can be involved through two types of financing: credit and investment. When financial institutions provide credit, it can be through loans or the underwriting of share and/or bond issuances. Investment, on the other hand, is when financial institutions invest in the equity and debt of a company by holding shares and/or bonds.

This study looks into the financing of credit through loans and underwritings. That means that beside loans, the underwritings for the issuances of shares and bonds have been taken into account, while investments in company shares and bonds have not been investigated.

This subsection outlines the different types of financing, how they were researched and the implications for the study.

- **Loans**

  The easiest way to obtain debt is to borrow money. In most cases, money is borrowed from commercial banks. Loans can be either short-term or long-term in nature. Short-term loans (e.g. trade credits, current accounts, leasing agreements) have a maturity of less than a year. They are mostly used as working capital for day-to-day operations. Short-term debts are often provided by a single commercial bank, which does not ask for substantial guarantees from the company.

  A long-term loan has a maturity of at least one year, but more often of three to ten years. Long-term corporate loans are particularly useful to finance expansion plans, which only generate rewards after a certain period of time. The proceeds of corporate loans can be used for all activities of the company. Long-term loans are frequently extended by a loan syndicate, which is a group of banks brought together by one or more arranging banks. The loan syndicate will only undersign the loan agreement if the company can provide certain guarantees that interest and repayments on the loan will be fulfilled. Corporate loans are often used as project finance (a loan that is earmarked for a specific project) or as general corporate purposes or working capital. Sometimes, a loan's use of proceeds is reported as general corporate purposes when it will be used for a certain project. This is difficult to ascertain.

  Moreover, another type of loan is a revolving credit facility. A revolving credit facility provides a company with an option to take up a loan from a bank (or more often: a banking syndicate) when it has an urgent financing need. It is similar to a credit card. Companies can use the revolving facility up to a certain limit, but they don't have to. Revolving credits are often concluded for a five-year period and then renewed, but many companies renegotiate their revolving credit facility every year with the same banking syndicate. Amounts, interest rates, fees and participating banks can change slightly every year. As the financial press often reports these renegotiations for larger companies, this might raise the impression that banks are lending huge sums of money to the same company every year. But: this concerns renegotiations of basically the same facility and a revolving credit facility is hardly ever actually called upon for a loan. Within the scope of this research revolving credit facilities are counted for every time that they are renewed.

  Although revolving credit facilities are not always fully called upon, the syndicate of banks providing the facility do have the obligation to provide the entire amount of money when the company asks for it. Therefore, even if the company ends up never using the facility, the banks were still involved with the company during the period of the revolving credit facility and would have provided the company with the money when they asked for it.

- **Share issuances**

  Issuing shares on the stock exchange gives a company the opportunity to increase its equity by attracting a large number of new shareholders or to increase the equity from its existing shareholders.

  When a company offers its shares on the stock exchange for first time, this is called an Initial Public Offering (IPO). When a company's shares are already traded on the stock exchange, this is called a secondary offering of additional shares. To arrange an IPO or a secondary offering, a company needs the assistance of one or more (investment) banks, which will promote the shares and find shareholders. The role of investment banks in this process is therefore very important.

  The role of the investment bank is temporary. The investment bank purchases the shares initially and then promotes the shares and finds shareholders. When all issued shares that the financial institution has underwritten are sold, they are no longer included in the balance sheet or the portfolio of the financial institution. Nevertheless, the assistance provided by financial institutions to companies in share issuances is crucial. They provide the company with access to capital markets, and provide a guarantee that shares will be bought at a pre-determined minimum price.

- **Bond issuances**

  Issuing bonds can best be described as cutting a large loan into small pieces, and selling each piece separately. Bonds are issued on a large scale by governments, but also by corporations. Like shares, bonds are traded on the stock exchange. To issue bonds, a company needs the assistance of one or more (investment) banks which underwrite a certain amount of the bonds. Underwriting is in effect buying with the intention of selling to investors. Still, in case the investment bank fails to sell all bonds it has underwritten, it will end up owning the bonds.

2.1.2 Timeframe

Corporate loans, bond and share issuances are considered credit activities. They fall within the remit of different departments within a bank, and as such, are governed by relevant bank policies. The scope of this research for credit activities is January 2012 to December 2017.

2.1.3 Financial institution financing contributions

The financial databases do not always include details on the levels of individual financial institutions' contribution to a deal. Individual bank's contributions to syndicated loans and underwriting were recorded to the largest extent possible where these details were included in the financial databases. In many cases, the total value of a loan or issuance is known, as well as the number of banks that participate in this loan or issuance. However, the amount that each individual bank commits to the loan or issuance has to be estimated. This research uses a two-step method to calculate this amount. The first uses the ratio of an individual institution's management fee to the management fees received by all institutions. This is calculated as follows:

$$\text{Participant's contribution: } \left(\frac{individual\ participant\ attributed\ fee}{sum\ of\ all\ participants\ attributed\ fees} * principal\ amount\right)$$

When the fee is unknown for one or more participants in a deal, the second method is used, called the 'bookratio'. The bookratio (see formula below) is used to determine the commitment distribution of bookrunners and other managers.

$$\text{Bookratio: } \frac{number\ of\ participants - number\ of\ bookrunners}{number\ of\ bookrunners}$$

Table 5 shows the commitment assigned to book runner groups with this estimation method. When the number of total participants in relation to the number of bookrunners increases, the share that is attributed to bookrunners decreases. This prevents very large differences in amounts attributed to book runners and other participants.

Table 5 Commitment assigned to book runner groups

Bookratio	Loans	Issuances
> 1/3	75%	75%
> 2/3	60%	75%
> 1.5	40%	75%
> 3.0	< 40%*	< 75%*

* In case of deals with a bookratio of more than 3.0, we use a formula which gradually lowers the commitment assigned to the bookrunners as the bookratio increases. The formula used for this:

$$\frac{\frac{1}{\sqrt{bookratio}}}{1.443375673}$$

The number in the denominator is used to let the formula start at 40% in case of a bookratio of 3.0. As the bookratio increases the formula will go down from 40%. In case of issuances the number in the denominator is 0.769800358.

2.1.4 Data sources

For the collection of financial data, this research relied primarily on financial databases, including Bloomberg, Thomson Reuters Eikon, IJGlobal and TradeFinance Analytics.

For additional deals, this research also included company websites, annual reports, an extensive general internet search, national company registers, and specialist databases such as Orbis. For Dutch companies a search in the national mortgage register was performed.

2.2 Overall results

This research identified a total of EUR 8.8 billion provided to the selected companies by three Dutch banks over a five year period (2012-2017). The findings are summarized in Table 6.

Table 6 Finance of Dutch banks to the selected companies, per value segment (in EUR million)

Value segment, company	ABN Amro	ING Group	Rabobank	Total
Chicken meat				
BRF		47	47	94
Pilgrim's and JBS Aves (JBS)		187	1,404	1,591
New Hope Group			18	18
Plukon Food Group	563			563
Tyson Foods	45	44	1,904	1,994
Total Chicken meat	*608*	*278*	*3,374*	*4,259*
Pig meat				
Charoen Pokphand Group			350	350
Triumph Foods			71	71
Smithfield (WH Group)		147	1,097	1,245
Vion Food Group	5			5
Total Pig meat	*5*	*147*	*1,518*	*1,670*
Restaurant companies				
Domino's Pizza Group			57	57
McDonald's		140	472	612

Value segment, company	ABN Amro	ING Group	Rabobank	Total
Restaurant Brands International			805	805
Yum! Brands		45	465	509
Total Restaurant companies		184	1,799	1,983
Food retailers				
Carrefour		736		736
Schwarz Unternehmenstreuhand	45		150	195
Total Food retailers	*45*	*736*	*150*	*931*
Total	**658**	**1,345**	**6,840**	**8,843**

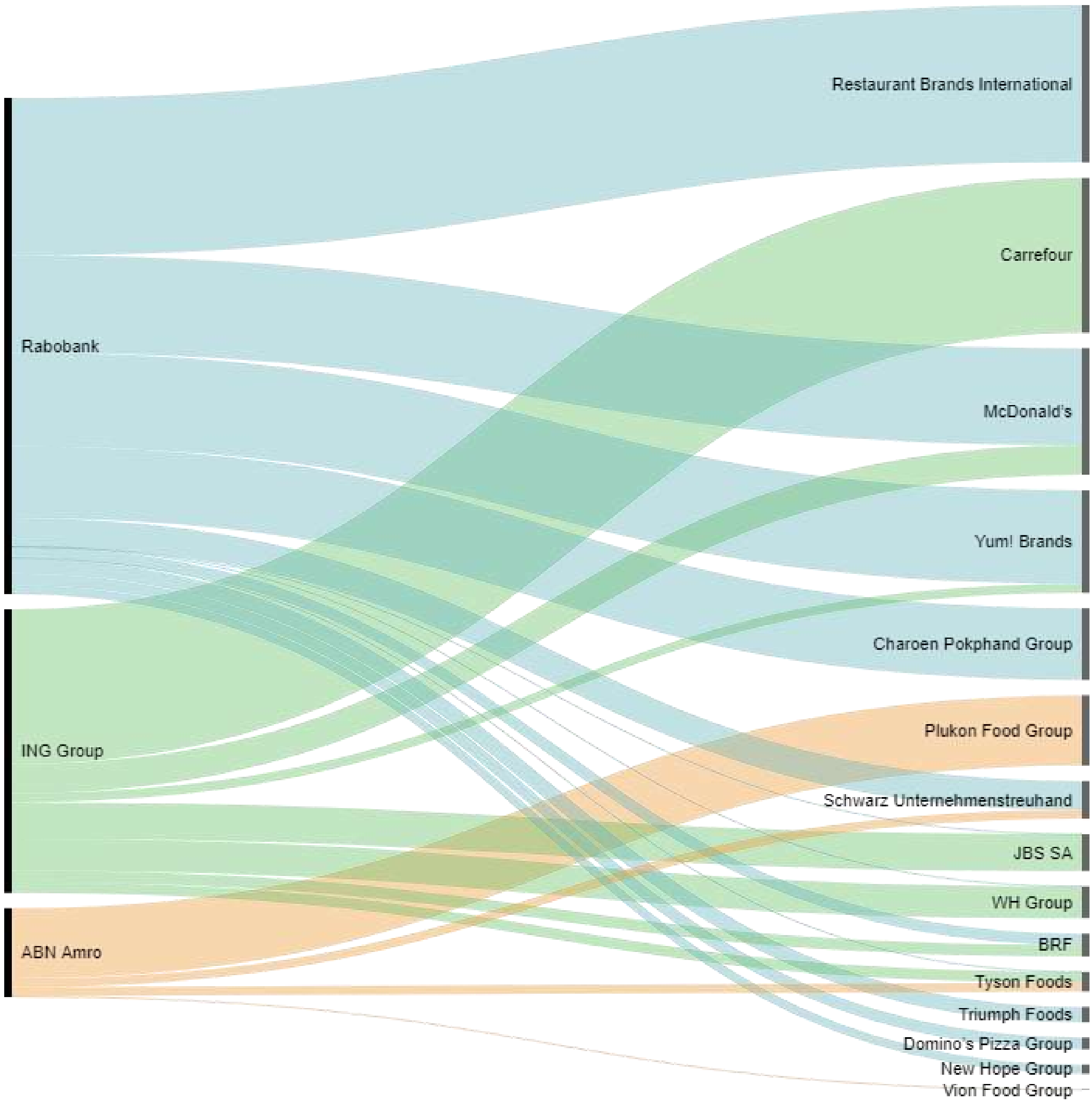
Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

The three banks ABN Amro, ING Group and Rabobank have been identified as providing loans to the selected companies. The other four Dutch banking groups have not been identified as providing loans to the selected companies (it may be that they have provided loans to the companies, but in these cases the loans have not been identified):

- De Volksbank (ASN Bank en SNS Bank);
- NIBC;
- Triodos Bank; and
- Van Lanschot.

Rabobank provided 77% of the identified finance, ING Group 15% and ABN Amro 7%. To provide an idea of the relative sizes of the finance flows, Figure 1 shows the finance flows from the Dutch banks to the selected companies, proportionate to the size of the financing.

Figure 1 Finance flows from the Dutch banks to the selected companies



Finance has been identified for seven chicken meat companies, eight pig meat companies, four restaurant companies and four food retailers: in total for 23 out of the 30 selected companies. Table 7 shows the companies selected for this research. For the companies for which finance has been identified the value of the finance is shown. It also shows whether finance from the Netherlands has been identified, and if so, for what percentage.

Table 7 Identified finance to the selected companies (2012-2017), and Dutch share of total investments (in EUR million)

Value segment, company	All countries	Netherlands	Netherlands %
Chicken meat			
BRF	5,472	94	2%
Guangdong Wen's Food Group	1,265	-	-
Industrias Bachoco	204	-	-
PILGRIM'S AND JBS AVES (JBS)	11,498	1,591	14%
New Hope Group	4,959	18	0%
LDC	-	-	-
PHW Group	-	-	-
Plukon Food Group	563	563	100%
2 Sisters Food Group	-	-	-
Tyson Foods	38,037	1,994	5%
Total chicken meat	*61,997*	*4,259*	*7%*
Pig meat			
Charoen Pokphand Group	14,200	350	2%
Cooperl Arc Atlantique	-	-	-
Danish Crown	96	-	-
Hormel Foods	937	-	-
Thai Foods Group	141	-	-
Tönnies	-	-	-
Triumph Foods	906	71	8%
Smithfield (WH Group)	14,905	1,245	8%
Yurun Group	195	-	-
Vion Food Group	5	5	100%
Total pig meat	*31,383*	*1,670*	*5%*
Restaurant companies			
Domino's Pizza Group	4,030	57	1%
McDonald's	23,307	612	3%
Restaurant Brands International	15,320	805	5%
Subway	-	-	-
Yum! Brands	14,212	509	4%
Total Restaurant companies	*56,870*	*1,983*	*3%*
Food retailers			
Aldi Einkauf	-	-	-
Carrefour	23,726	736	3%
Schwarz Unternehmenstreuhand	5,146	195	4%

Value segment, company	All countries	Netherlands	Netherlands %
Tesco	12,719	-	-
Wal-Mart Stores	90,448	-	-
Total food retailers	*132,039*	*931*	*1%*
Total	**282,289**	**8,843**	**3%**

Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

The seven companies for which no finance has been identified are two French companies (LDC and Cooperl Arc Atlantique), three German companies (Tönnies, PHW Gruppe and Aldi Einkauf), one British company (2 Sisters Food Group) and one US-company (Subway). These companies are marked in Table 7 with a "-". In most cases the lack of financial data is caused by the companies being private companies that are not listed on the stock exchange markets.

Furthermore, Table 7 shows that the total identified finance holds a value of EUR 282 billion. Total finance from the Netherlands is EUR 8.8 billion. This means that 3% of the identified finance comes from the Netherlands. Remarkable is the large Dutch share in the finance to Brazilian JBS (14%). The 100% Dutch share to the Dutch companies (Plukon and VION) is not surprising.

To identify the Dutch share of investments, for all financiers the ultimate parent company of the banking group and the country seat were determined. Based on the country seats of the ultimate parents, the value financed by banks from the Netherlands ranks seventh. Banks from United States, United Kingdom and France lead the ranking, with United States far ahead of the rest (Table 8).

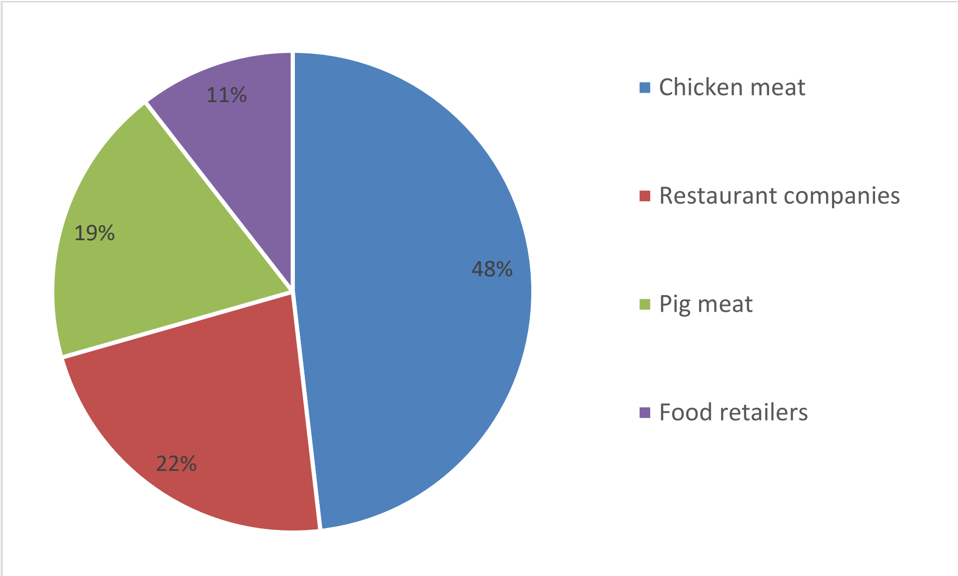
Table 8 Ranking of investor countries for finance to the selected companies (in EUR million)

Rank	Investor country	Value
1	United States	141,991
2	United Kingdom	40,008
3	France	20,028
4	Canada	11,891
5	China	11,873
6	Japan	9,718
7	*Netherlands*	*8,843*
8	Spain	8,128
9	Thailand	7,705
10	Germany	4,874
Other countries		17,229
Total		**282,289**

Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

Figure 2 shows the division of the finance of the Dutch banks over the four value segments. Nearly half of the finance to the selected companies went to chicken meat producers. Remarkable is the relative large share of finance to restaurant companies (22%). 20% of finance went to pig meat producers and 11% went to food retailers.

Figure 2 Share of Dutch finance per value segment



Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

The finance flows vary over times. Table 9 shows the fluctuations over time within the 5-year research period. For 2017 the highest amount of finance has been identified. Because of the fluctuations, it cannot be concluded that the finance flows have increased over the years.

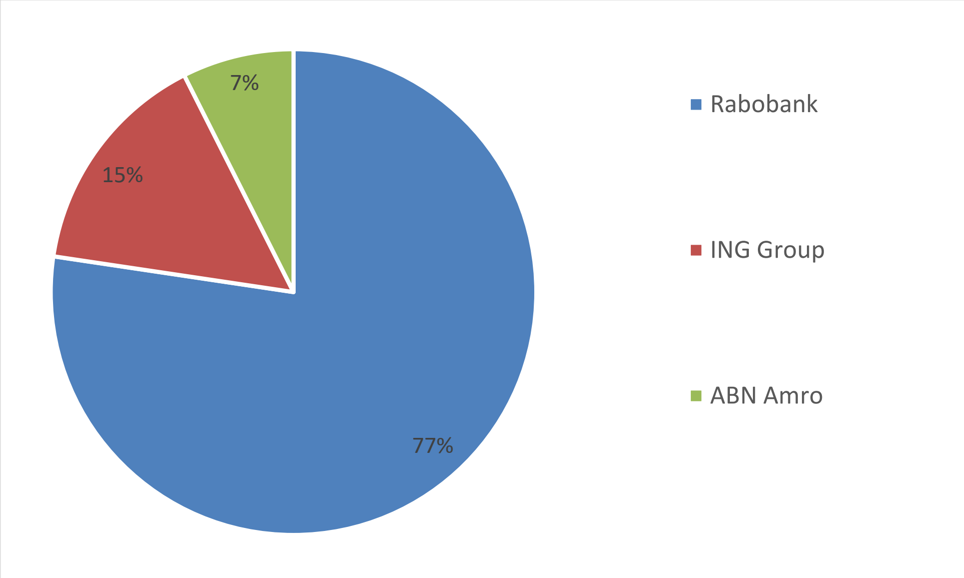
Table 9 Finance to the selected companies per year (in EUR million)

Bank	2012	2013	2014	2015	2016	2017	Total
Rabobank	463	769	1,020	1,707	295	2,587	6,840
ING Group	21	122	362	477	45	318	1,345
ABN Amro				613		45	658
Total	**484**	**891**	**1,382**	**2,796**	**340**	**2,950**	**8,843**

Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

In Figure 3 the shares of finance by the three banks are given. Rabobank provided the largest share (77%) of the identified finance to the selected companies. ING Group provided 15% and ABN Amro 7%.

Figure 3 Share of Dutch finance per Dutch bank



Source: Thomson EIKON, Loans, viewed in December 2017; Thomson EIKON, Share Issuances, viewed in December 2017; Thomson EIKON, Bond Issuances, viewed in December 2017; Bloomberg, Loan Search, viewed in December 2017; Bloomberg, Aggregated Debt, viewed in December 2017; TradeFinance Analytics, Trade Finance, viewed in January 2018; Kadaster, Mortgage Register, viewed in January 2018.

The next sections present the figures of the three Dutch banks in more detail.

2.3 ABN Amro

2.3.1 Profile

ABN AMRO Group N.V. (ABN AMRO) is a global banking group with headquarters in the Netherlands. ABN AMRO offers retail, private and corporate banking services primarily in the Netherlands with selective operations internationally.[55] The group has a global presence, with activities in more than 16 countries, including Belgium, France, Germany, Hong Kong and the United States, and serves approximately 6.8 million customers worldwide.[56]

ABN AMRO is controlled at 70% by NL Financial Investments (NLFI), which represents the Dutch State.[57] The remaining 30% of the shares of ABN AMRO are held and managed by the Stichting Administratiekantoor Continuiteit ABN AMRO Group (STAK AAG). Participation in ABN AMRO is possible by buying and holding depositary receipts issued by STAK AAG and listed on the Amsterdam stock exchange.[58]

In the Netherlands, ABN AMRO operates under the following brand names: ABN AMRO, ALFAM, Alpha Credit Nederland, Credivance, Defam, Direktbank, Florius, GreenLoans, International Card Services and MoneYou, which also operates in Belgium, Germany and Austria. In addition, ABN AMRO operates in France and Germany under Banque Neuflize, and in Germany only under Bethmann Bank.[59]

At the end of 2016, ABN AMRO had 21,664 employees worldwide (full time equivalent basis), of which 17,507 were in the Netherlands.[60] Over the financial year 2016, total income of the group amounted to € 8.2 billion, of which € 6.5 billion came from the Netherlands, and customer deposits totalled € 228.8 billion.[61]

Table 10 provides an analysis of the investment categories relevant for ABN AMRO. As can be seen in the table, ABN AMRO is active in all five different investment categories.

Table 10 Analysis of relevant investment categories for ABN AMRO (in € billion)

Investment category	Asset type	Value at end of 2016	%	Relevant
Corporate credits	Loans and credits to companies (MNEs/SMEs)	96.1	24.4%	Yes
Project finance	*(included in loans to companies)*			Yes
Investments own account	Government bonds	34.9	8.8%	Yes
	Shares & corporate bonds	1.7	0.4%	
	Derivatives	14.4	3.6%	
	Real estate & securities	3.2	0.8%	
	Other/undefined	61,4	15.6%	
Mortgages	Mortgage loans	152.1	38.5%	Yes
	Other balance sheet assets	30.8	7.8%	
	Total balance sheet assets	**394.5**	**100.0%**	
Asset management	Assets under management	322.7		Yes

Source: ABN AMRO (2017, March), *Annual Report 2016*, p. 51, 161, 252, 289, 299, 301.

2.3.2 Financial relationships

ABN Amro financed in the period 2012-2017 four of the selected companies with a total value of EUR 0.7 billion. Largest borrower is Dutch chicken meat producer Plukon (EUR 563 million). Schwarz and Tyson are in second and third place (Table 11). ABN Amro financed mainly the chicken meat segment and did not finance the restaurant companies.

Table 11 Finance of ABN Amro to the selected companies, per value segment (in EUR million)

Companies	Chicken meat	Pig meat	Food retailers	Total
Plukon Food Group	563			563
Schwarz Unternehmenstreuhand			45	45
Tyson Foods	45			45
Vion Food Group		5		5
Total	**608**	**5**	**45**	**658**

Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

2.4 ING Group

2.4.1 Profile

ING Groep N.V. ("ING") is a publicly-listed company and a global banking group based in the Netherlands.[62] The group provides retail and wholesale banking services to over 35.8 million customers.[63] ING is active in over 40 countries, including activities in North and South America, as well as Asia and the Pacific.[64] In Belgium, Luxembourg and the Netherlands ING has a leading position in the retail and wholesale banking segments.[65]

The group operates primarily under the ING brand, with activities in the Netherlands, also including Bank Mendes Gans brand.[66] Until December 2015, ING also had insurance activities through NN Group.[67] ING has been in a divestment process of this subsidiary since 2014 and, as of April 2016, ING's remaining stake in NN Group has been sold, as part of an agreement with the European Commission to divest all insurance and investment management activities.[68]

At the end of 2016, ING had 51,943 employees worldwide (full time equivalent basis), 13,660 of which were employed in the Netherlands.[69] Over the financial year 2016, total income amounted to € 17.5 billion, of which € 5.8 billion originated from the Netherlands, and customer deposits totalled € 522.9 billion, including € 315.7 billion in savings.[70]

Table 12 provides an analysis of the investment categories relevant for ING. As can be seen in the table, ING is active in all five different investment categories.

Table 12 Analysis of relevant investment categories for ING (in € billion)

Investment category	Asset type	Value at end of 2016	%	Relevant
Corporate credits	Loans and credits to companies (MNEs/SMEs)	176.2	20.9%	Yes
Project finance	*(included in loans to companies)*			Yes
Investments own account	Government bonds	71.9	8.5%	Yes
	Shares & corporate bonds	15.7	1.9%	
	Derivatives	40.7	4.8%	
	Real estate & securities	0.1	0.0%	
	Other/undefined	183.1	21.7%	
Mortgages	Mortgage loans	318.6	37.7%	Yes
	Other balance sheet assets	38.8	4.6%	
	Total balance sheet assets	**845.1**	**100.0%**	
Asset management	Assets under management	65.0		Yes

Source: ING Groep (2017, March), *Annual Report 2016*, p. 111, 140-143, 145, 152; ING Groep (n.d.), "Private Banking," online: https://www.ing.lu/web/ING/EN/Personal/PrivateBanking/Expertise/PB_ING_PRIVATE_BANKING_EN, viewed in July 2017.

2.4.2 Financial relationships

In the period 2012-2017, ING Group financed seven of the selected companies with a total value of EUR 1.4 billion. More than half of it was provided to French food retailer Carrefour, with Brazilian chicken meat producer JBS and US pig meat producer WH Group (Smithfield) in second and third place. Due to its large loans to Carrefour, ING Group invested most in the food retailers segment (Table 13).

Table 13 Finance of ING Group to the selected companies, per value segment (in EUR million)

Company	Chicken meat	Pig meat	Restaurant companies	Food retailers	Total
Carrefour				736	736
Pilgrim's and JBS Aves (JBS)	187				187
Smithfield (WH Group)		147			147
McDonald's			140		140
BRF	47				47

Company	Chicken meat	Pig meat	Restaurant companies	Food retailers	Total
Yum! Brands			45		45
Tyson Foods	44				44
Total	**278**	**147**	**184**	**736**	**1,345**

Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

2.5 Rabobank

2.5.1 Profile

Coöperatieve Rabobank U.A. (Rabobank) is an international financial services provider based in the Netherlands. The group offers products and services in the areas of banking, capital management, leasing, insurance and real estate.[71] Rabobank serves over 8.7 million customers worldwide, of which 7.5 million in the Netherlands.[72] The group is active in 40 countries in Europe, North America, Australia and New Zealand, Latin America and Asia.[73]

Rabobank is structured as a cooperative and is therefore held by its members through the General Members Council. Rabobank has a total of 1.9 million members represented through local councils and local supervisory boards.[74]

Worldwide, Rabobank has a number of subsidiaries and associates servicing the group's customers. The group's main brands in the Netherlands and abroad are: Rabobank, ACC Loan Management, MyOrder, Obvion, Rembrandt, DLL, BPD Europe, Bouwfonds IM, and FGH Bank.[75] The group holds significant shares (above 20%) in the following banks: Banco Terra, Banco Regional, NMB, Zanaco, Banco Sicredi and DFCU.[76] Rabobank also hold a 29% interest in Achmea.[77]

At the end of 2016, Rabobank had 40,029 employees worldwide (full time equivalent basis).[78] Over the financial year 2016, total income of the group added to € 12.8 billion and total deposits from customers amounted to € 347.7 billion.[79]

Table 14 provides an analysis of the investment categories relevant for Rabobank. As can be seen in the table, Rabobank is active in all five investment categories.

Table 14 Analysis of relevant investment categories for Rabobank (in € billion)

Investment category	Asset type	Value at end of 2016	%	Relevant
Corporate credits	Loans and credits to companies (MNEs/SMEs)	184.6	27.9%	Yes
Project finance	*(included in loans to companies)*			Yes
Investments own account	Government bonds	27.6	4.2%	Yes
	Shares & corporate bonds	1.4	0.2%	
	Derivatives	42.4	6.4%	
	Real estate & securities	0.3	0.0%	
	Other/undefined	71.2	10.7%	
Mortgages	Mortgage loans	206.5	31.2%	Yes
	Other balance sheet assets	128.6	19.4%	
	Total balance sheet assets	**662.6**	**100.0%**	
Asset management	Assets under management	6.7		Yes

Source: Rabobank (2017, March), *Annual Report 2016*, p. 167, 213, 214, 217, 218, 221 and 341.

2.5.2 Financial relationships

Rabobank provided by far the largest amount of finance to the companies in this research. Rabobank financed in the period 2012-2017 twelve of the selected companies with a total value of EUR 6.8 billion. Largest borrower is chicken meat producer Tyson Foods with a value of EUR 1.9 billion. JBS (EUR 1.4 billion) and Smithfield (WH Group) (EUR 1.1 billion) are second and third in the list. Next to chicken meat producers, Rabobank also invested a lot in restaurant companies (Table 15).

Table 15 Finance of Rabobank banks to the selected companies, per value segment (in EUR million)

Company	Chicken meat	Pig meat	Restaurant companies	Food retailers	Total
Tyson Foods	1,904				1,904
Pilgrim's and JBS Aves (JBS)	1,404				1,404
Smithfield (WH Group)		1,097			1,097
Restaurant Brands International			805		805
McDonald's			472		472
Yum! Brands			465		465
Charoen Pokphand Group		350			350
Schwarz Unternehmenstreuhand				150	150
Triumph Foods		71			71
Domino's Pizza Group			57		57
BRF	47				47
New Hope Group	18				18
Total	**3,374**	**1,518**	**1,799**	**150**	**6,840**

Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018.

Chapter 3 Analysis of international standards on animal welfare

The Fair Bank Guide policy update published in December 2016[80], assessed the banking groups on their policy on animal welfare. For this assessment the *Fair Finance Guide International Methodology for the assessment of finance and investment policies* (FFGI Methodology) was used. Animal welfare is addressed in the cross-cutting issue theme *Animal welfare* and sector theme *Food*.

In the most recent version of FFGI Methodology, the theme Animal Welfare includes the following assessment elements with respect to animal welfare in the farming sector:[81]

- Companies respect the Five Freedoms of animals.
- (…)
- Extremely restricted housing methods including for calves in crates, hens in battery cages and sows in feeding cubicles are unacceptable.
- Companies shift from intensive livestock farming to animal friendly production.
- Livestock farming companies are certified according to the certification schemes criteria that include animal welfare requirements (such as organic, free range, environment label, Better Life label).
- Fish farms are certified according to the certification schemes criteria that include animal welfare, including the avoidance of stress, anxiety or pain, quality feed and spacious facilities.
- (…)
- Companies reduce the time limit of animal transport to a maximum of 8 hours.
- Companies integrate animal welfare criteria into their procurement and operational policies.
- Companies include clauses on the compliance with criteria on animal welfare in their contracts with subcontractors and suppliers.

The Food sector theme evaluates the following elements in a bank's policy:[82]

- (…)
- Companies respect the Five Freedoms of animals;
- Very restricted housing methods for calves (in crates), hens (in battery cages) and sows (in feeding cubicles) are unacceptable;
- Companies reduce the time limit of animal transport to a maximum of 8 hours.

Looking at species specific welfare needs, the following sections further explore these broad expectations and translate this into minimum welfare requirements that banks, committing to these principles, should uphold with regards to broilers and pigs.

Before answering the question regarding what animal welfare standards would be appropriate for Dutch banks to strive for, support and commit to, several considerations merit elaboration. To start with, animal welfare is best conceived as a journey, not as a certain state that can be reached once and for all. This means animal welfare is never 'finished' and needs continuous scrutiny - the more so since it is questionable that a level of ideal animal welfare can ever be achieved within mainstream industrial animal production.

However, standards are a good, often indispensable instrument to achieve progress on the animal welfare continuum. Standard-setting allows for specific, ambitious, realistic and time-bound objectives, which can be monitored and evaluated. To determine what should be expected of banks, the following overview sets the scene.

3.1 Legislation

In terms of a baseline, no legally binding animal welfare standards exist globally, a notable lack within international law.[83] However, within the EU, a series of EU-directives have been adopted since the 1990s, setting legal minimum animal welfare standards within the EU for farm animals in general, transport and slaughter and some specific species. EU member states have the obligation to transpose these standards to national legislation. Whilst doing so, they have the liberty to adopt more stringent rules, provided these are compatible with the provisions of the Treaty on the Functioning of the European Union. In practice, member states are reluctant to be more stringent, to not create unfair competition for their farmers – and to de facto move animal welfare problems across the border.

Furthermore, some alternative systems – including higher welfare aspects - are defined in EU marketing terms (Commission Regulation, 2008) and organic legislation (Council Regulation, 1999). These regulations define when animal products can be sold as 'extensive barn', 'free range', 'traditionally free range', 'total freedom free range' or 'organic'. Table 16 provides an overview of the standards set for these systems on outdoor acces, space allowance and minimum slaughter age.

Table 16 Overview of EU legislative standards, standards for EU marketing terms and organic standards for broiler chickens

	Minimum	Extensive barn	Free range	Traditionally free range	Total freedom free range	Organic
Outdoor access	No	No	Yes	Yes	Yes	Yes
Minimum space allowance	No maximum number of birds per m2, but maximum 42 kg liveweight per m2.	Maximum 15 birds per m2 and maximum 25kg liveweight per m2.	Indoor area: maximum 13 birds per m2 and maximum 27,5 kg liveweight per m2. Outdoor area: 1 m2 per bird.	Indoor area: maximum 12 birds per m2 and maximum 25 kg liveweight per m2. Outdoor area: 2 m2 per bird.	Indoor area: maximum 12 birds per m2 and maximum 25 kg liveweight per m2. Outdoor area: unrestricted	Indoor area: maximum 10 birds per m2 and maximum 21 kg liveweight per m2. Outdoor area: 4 m2 per bird.
Minimum slaughter age	-	56 days	-	81 days	81 days	70 days

Sources: Council Directive 2007/43/EC of 28 June 2007 laying down minimum rules for the protection of chickens kept for meat production; Commission Regulation (EC) No 543/2008 of 16 June 2008 laying down detailed rules for the application of Council Regulation (EC) No 1234/2007 as regards the marketing standards for poultrymeat; SKAL, (n.d.) "Veehouderij / Pluimee", online: https://www.skal.nl/veehouderij/pluimvee/huisvesting/, viewed in January 2018.

The objective of these directives is to foster the common market. For the EU it is appropriate to take account of animal welfare provisions "in order to ensure rational development of production and to facilitate the organisation of the market in animals"[84]. Consequently, EU-directives embody a compromise between animal welfare concerns and the economic interests of the livestock sector, with the latter weighing most heavily. A prime example are cages for laying hens. After a decades long push to ban battery cages for laying hens, the EU decided to ban conventional battery cages but still allow 'enriched' battery cages. A 2017 review noted that scientific animal welfare advice of the European Food and Safety Authority is most often not translated into policy. Even more tellingly, the same report finds that 'a striking deficiency in EU animal welfare legislation is that some widely-kept animal species are not protected.'[85] This is the case for cows, rabbits, ducks, turkeys, trout and salmon.

Moreover, the legally binding nature of EU minimum standards does not guarantee proper implementation. Enforcement of and compliance with animal welfare legislation within the EU is a continuous challenge. The Food and Veterinary Office of the European Commission regularly reports non-compliance, notably the absence of proper enrichment for pigs, lack of stunning for poultry during slaughter and overstocking during transport.[86] Non-compliance is both due to capacity issues of the competent authorities in the Member States as well as differences in interpretation of the (transposition of the) directives. An example of the latter: the EU Food and Veterinary Office concluded that in France the maximum mortality rates were exceeded without this being considered as a non-compliance by the competent authorities.[87]

Enforcement and compliance are also a challenge in The Netherlands. Taking violations of animal welfare legislation at the level of individual farm animal as unit of measurement, the number of violations negatively impacting on animal welfare has been estimated to be between 2.7 and 3.4 billion per year.[88] This means that on average, every farm animal in The Netherlands suffers from 5.4 to 6.8 legislative infringements.[vi] There is no reason to believe other countries perform better – in many cases on the contrary even. The Dutch government recognizes that the EU directives leave ample room for improvement. In a joint declaration with Denmark and Germany, The Netherlands urged EU Member States and the EU Commission to acknowledge the need for better regulation and better animal welfare.[89] In 2017, the EU Commission has established the EU Platform on Animal Welfare that will assist the Commission on improving the application of EU rules on animal welfare. It has created a sub-group on pig welfare, that will help to ensure the implementation of the Pigs Directive, and on live animal transport.[90]

Outside the EU, legislative minimum standards are often ever lower, narrower in scope or cover only the most basic anti-cruelty provisions. For example, the American federal Animal Protection Act explicitly excludes animals kept for farming purposes, whereas the Humane Methods Slaughter Act excludes poultry,[91] which comprises chicken, duck and turkey and amount to 98.4% of all slaughtered animals in the US in 2016.[92] It must be noted that at state level, farm animals enjoy better protection in an increasing number of states. Other countries around the world lack animal welfare legislation altogether, including many African states and livestock production giants like Russia and China.[93]

3.2 Multilateral instruments

3.2.1 OIE standards

The OIE World Organisation for Animal Health is the World Trade Organisation (WTO) reference organisation for standards relating to animal health. The OIE has published two codes (Terrestrial and Aquatic) and two manuals (Terrestrial and Aquatic) as the principle reference for WTO members. The standards are intended to safeguard the hygienic safety in the trade in animals and animal products. The Terrestrial Animal Health Code 2015 and the Aquatic Animal Health Code 2015 respectively aim to assure the sanitary safety of international trade in terrestrial animals and aquatic animals, and their products. The codes concern animal health, but also include recommendations for animal welfare, mainly with respect to transport, slaughter, and killing animals to prevent the spread of diseases and stray animals.[94]

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vi Note that the methodology of counting violations in this report has been challenged by the Dutch competent authority, the NVWA, but follows the innate logic of the acknowledgement that every animal has an intrinsic value and an individual interest in being well – which is enshrined in Dutch legislation.

The welfare standards are based on consensus. As a result of a membership of 181 countries - many with large economic interests at stake – they represent the lowest common denominator, even below those that are set by EU legislation. Although scientifically informed, the use by OIE of available science tends therefore to be conservative. In many instances, the standards are rife with open norms. As such, they are prone to be used for legitimising and condoning unacceptable practices. To give one example, the standards state that the stocking density of broilers should allow for the birds 'to move and adjust their posture normally'. However, they do not define what is to be considered as 'normal' movement – and what the specific corresponding stocking density would look like.

Moreover, the OIE welfare standards are non-binding and implementation is often lacking. The OIE does not monitor the adoption and implementation of the standards by Member States.

Finally, the OIE standards do not cover some widely-kept species. These include pigs, laying hens, ducks, turkeys and rabbits.

Hence, whilst the OIE standards could be a valuable tool to help eliminate worst practices in several areas and aspects of industrial farming, they are not sufficient to safeguard farm animal welfare across the board.

3.2.2 OECD guidance

The *OECD Guidelines for Multinational Enterprises* (OECD Guidelines for MNEs) provide principles and standards for responsible business conduct in a global context, consistent with applicable laws and internationally recognised standards. The Guidelines are non-binding for companies, but binding for adhering governments, including the Netherlands. That is to say, the Dutch government is obliged to promote the guidelines and to have a National Contact Point for doing so.

According to the OECD Guidelines for MNEs, enterprises should "carry out risk-based due diligence, for example by incorporating it into their enterprise risk management systems, to identify, prevent and mitigate actual and potential adverse impacts […] and account for how these impacts are addressed."[95] This is applicable to adverse impacts a company could cause or contribute to, but also when there is no direct causation or contribution, but the impact is nevertheless 'directly linked to their operations, products or services by a business relationship.'[96]

For the issue at hand, two specific tools are relevant to implement the OECD Guidelines for MNEs. First of all, the OECD paper on *Responsible Business Conduct for Institutional Investors*, which explains the application of the OECD Guidelines for MNEs in the context of institutional investors.

Secondly, the *OECD-FAO Guidance on Responsible Agricultural Supply Chains*, which is aimed to help enterprises (including financial institutions) to observe standards of responsible business conduct in the agricultural supply chain. As such, it also focuses on animal welfare due diligence, but without prescribing particular animal welfare standards.However, it advices risk mitigation measures such as providing the opportunity to perform types of natural behaviour and the use of breeds appropriate to the environment and circumstances so that they can be reared without production diseases and other intrinsic problems.[97]

3.2.3 ISO TS 34700:2016

ISO/TS 34700:2016 Animal welfare management -- General requirements and guidance for organizations in the food supply chain is a tool developed by a ISO multistakeholder process to provide guidance for organizations in the food supply chain on animal welfare management. It is designed to guide users in conducting a gap analysis and developing an animal welfare plan that is aligned with the OIE Terrestrial Animal Health Code (OIE TAHC) or to be used to facilitate the implementation of any public or private sector animal welfare standards that meet at least the OIE TAHC.

ISO TS 34700:2016 is aimed at the implementation of welfare principles and standards at production level. Banks and other investors can promote its use or make it even conditional for corporate credits and project finance.

3.3 Private standards

Private standards have been developed in a series of countries, industry led or initiated by NGOs. Well-known examples of NGO-standards include RSPCA Assured in the UK, and Global Animal Partnership (GAP) in the US. In The Netherlands, the Better Life label (Beter Leven-keurmerk) of the Dierenbescherming has become prominent, as well as supermarket standards on broilers. These private standards usually have third-party accreditation, which often ensures much better compliance than by law enforcement.

Table 17 provides an overview of the standards set for the systems mentioned in the previous sections regarding outdoor acces, space allowance and minimum slaughter age.

Table 17 Private standards for broiler chickens compared to legal minimum standards[98]

Standard	Outdoor access	Minimum space allowance indoor	Minimum space allowance outdoor	Enrichment	Minimum slaughter age (days)
Legal minimum standard	No	No maximum number of birds per m2, but in practice max. 21 per m2 and maximum 42 kg liveweight per m2	-	No	No minimum requirement, but in practice 36 - 42
RSPCA Assured Indoor	No	Maximum 19 birds per m2 and maximum 30 kg liveweight per m2	-	Yes	No minimum requirement
GAP 5-Step Animal Wefare Rating Program - Step 1	No	No maximum number of birds per m2, but a maximum 29-32 kg liveweight per m2	-	Yes	Will be based on the outcomes of a study by the University of Guelph
Albert Heijn Nieuwe AH Kip	No	Maximum 16 birds per m2	-	Yes	45
Jumbo Nieuwe Standaard Kip	No	Maximum 13.5 birds per m2	-	Yes	49
Beter Leven 1 ster	No	Maximum 12 birds per m2 and maximum 25 kg liveweight per m2	-	Yes	56
Beter leven 2 sterren	Yes	Maximum 13 birds per m2 and maximum 27.5 kg liveweight per m2	1 m2 per bird	Yes	56
Beter Leven 3 sterren	Yes	Maximum 11 birds per m2 and maximum 25 kg liveweight per m2	4 m2 per bird	Yes	81
Label Rouge	Yes	Maximum 11 birds per m2	2 m2 per bird for 'free range', unlimited space for 'total freedom'	Yes	81-110
GAP 5-Step Animal Wefare Rating Program - Step 3	Yes	No maximum number of birds per m2, but a maximum 29 kg liveweight per m2	Equal to or greater than 75% of the total indoor floor space	Yes	Will be based on the outcomes of a study by the University of Guelph

NB. RSPCA Assured also certifies free range and organic systems, based on legal requirements as presented in Table 16.

The following sections provide more information of the standards presented in the table.

3.3.1 Beter Leven (Better Life)

The Dierenbescherming introduced the Beter Leven-keurmerk in 2007, a three-tier standard varying from some basic improvements (one star) to substantial improvements (three stars). Currently, this trade mark is available for pork, eggs, chicken meat, beef and veal. Market share has been steadily rising and in the ten years of its existence, the scheme has safeguarded a better life for approximately 100 million farm animals in total.[99] For example, almost all pork sold by Albert Heijn has been certified with one star of the Better Life scheme.[100]

3.3.2 New Standard Chicken

In recent years, the Dutch market has also seen the rise of successful industry standards for broilers. In October 2014, Jumbo supermarkets introduced their 'Nieuwe Standaard Kip' (New Standard Chicken). By April 2016, all their fresh chicken complied to this new standard. It includes a slower growing breed, a lower stocking density, natural light and enrichment. The standard is checked by a third-party auditor (Isacert).[101]

Other supermarkets have followed with similar (albeit sometimes weaker) policies for chicken meat. Marketleader Albert Heijn for example has introduced 'Nieuwe AH Kip' (New AH Chicken). [102]

3.3.3 Label Rouge

Whilst Jumbo's new standard chicken remains slightly below the one-star level of the Better Life trade mark of the Dierenbescherming, industry standards can sometimes also provide higher welfare. Label Rouge in France is the prime example.[103] Set up in the early 1960s, Label Rouge was a response against the industrialisation of poultry production. To cater for a French consumer taste for traditionally raised chicken, the initiative developed standards to safeguard such farming practices. This means that – although high animal welfare standards are part of the program – the prime focus is taste. This is exemplified by the fact that regular taste-testing is a certification requirement to prove that these products are 'vividly distinguishable' from conventional chicken.[104] In France, Label Rouge has developed a seizable market share of about 20% of chicken sales. Besides for chickens, the certification is available for other kinds of poultry: turkeys, ducks, quails, guinea fowl.

3.3.4 RSPC Assured

RSPCA Assured was introduced as Freedom Food in 1994 and ranks as most comprehensive private certification scheme to date. The label covers broilers, laying hens, pigs, dairy cows, calves, beef cattle, turkeys, salmon and trout. Sheep are expected to be covered soon. [105] In 2016, 270 million animals lived under the RSPCA Assured scheme, which means that, since its start, it has assured a better life for well over a billion farm animals.[106]

All farms under the RSPCA Assured scheme are inspected annually and in addition at least 30% receive an (unannounced) monitoring visit by an RSPCA farm livestock officer. One of its recent successes was the 2016 announcement by McDonalds UK to use 100% RSPCA Assured labelled pork across its entire UK menu.[107]

3.3.5 Global Animal Partnership

Global Animal Partnership is an NGO in which scientists, farmers, retailers and animal advocates have joined forces. Initiated by US based retailer Wholefoods in 2008, it works with a 5-step certification scheme, ranging from very basic requirements (step 1: no cages and overcrowding) to elaborate requirements that are fully animal centered (step 5). To date, it has developed 5-steps criteria for broilers, laying hens, pigs, turkeys, sheep, bisons and beef cattle. The programme covers more than 3.200 farms, totalling 290 million animals.[108]

Especially Step 1 for broilers is gaining ground quickly in North America. More than 70 companies, including Restaurant Brands International (owner of Burger King), Sodexo, Starbucks, Unilever and Nestlé USA have all committed to adhere to GAP broiler standards by 2024 for the US and in some cases Canada.[109] Similar commitments are expected to be announced in Europe from 2018 onwards.

This raises the question to which of the American companies with which Dutch banks have financial relationships, have committed to the GAP 5-Step certification. It appears that out of the six American companies financed by Dutch banks only one, Restaurant Brands International has committed to start working according to Step 1 of the GAP 5-Step standard and that there are interesting targets to set for engagement and dialogue with the other companies: Pilgrims and JBS Aves (JBS), Tyson Foods, Domin's Pizza Group, and Yum! Brands.

3.4 Financial sector initiatives

3.4.1 IFC Good Practice Note

In the series of Performance Standards by the International Finance Corporation (part of the World Bank Group), animal welfare is missing. However, in its Performance Standard (PS) 6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources, the IFC states the following about animal husbandry:

> ”Clients who are engaged in such industries [i.e. the primary production of living natural resources, including natural and plantation forestry, agriculture, animal husbandry, aquaculture, and fisheries] will manage living natural resources in a sustainable manner, through the application of industry-specific good management practices and available technologies. Where such primary production practices are codified in globally, regionally, or nationally recognized standards, the client will implement sustainable management practices to one or more relevant and credible standards as demonstrated by independent verification or certification. […] Where relevant and credible standard(s) exist, but the client has not yet obtained independent verification or certification to such standard(s), the client will conduct a pre-assessment of its conformity to the applicable standard(s) and take actions to achieve such verification or certification over an appropriate period of time.” [110]

This wording leaves room for the application of a variety of standards: OIE animal welfare standards, EU minimum animal welfare standards, EU organic animal welfare standards, national minimum animal welfare standards or widely acknowledged private standards. To provide further guidance, the IFC developed a Good Practice Note (GPN) *Improving Animal Welfare in Livestock Operations*. This note was prepared in collaboration with the IFC's Manufacturing, Agribusiness, and Services (MAS) department. The GPN describes a range of animal welfare good practices and describes IFC's approach to animal welfare, including details on IFC's approach to due diligence and monitoring based on OIE's standards.[111]

The GPN lists a number of principles for good animal welfare. In itself, these are sound principles, but since they contain many open norms, they have proven to be vulnerable for greenwashing. Moreover, the principles are explicitly presented as mere ‘recommendations’ and are non-binding.

3.4.2 FAIRR

Initiatives aimed at the financial sector are not limited to the IFC GPN. The Farm Animal Investment Risk and Return (FAIRR) initiatve was established by Jeremy Coller, the Founder and Chief Investment Officer of Coller Capital, to increase awareness amongst investors about the risks associated with their investments in factory farming companies and meat producers. The organisation provides resources and platform to investors for understanding and improving animal welfare and other risks associated with livestock farming.[112]

In its report *Factory Farming: Assessing Investment Risks*, FAIRR states that "animal factory farming is exposed to at least twenty-eight environmental, social and governance issues that could significantly damage financial value over the short or long-term. Many of these risks are currently hidden from investors".[113] Investors can join FAIRR and opt for committing to its three principles:[114]

- Principle 1 Transparency: We will support transparency on standards of livestock production by the entities in which we invest.
- Principle 2 Investment Decisions: We will consider the ESG implications of livestock production in our investment decision-making.
- Principle 3 Stewardship: We will include the ESG implications of livestock production in our monitoring and engagements.

Investors can be a part of the FAIRR engagement initiatives with the largest meat companies on sustainable protein supply chains and antibiotics.[115] As such, FAIRR is aimed at putting animal welfare (and other industrial farming related issues) on the investment agenda, not to provide guidance about specific standards.

3.4.3 Business Benchmark on Farm Animal Welfare

Initiated by NGO's (World Animal Protection and Compassion in World Farming), the Business Benchmark on Farm Animal Welfare (BBFAW) has been specifically designed to support investors in their engagement with companies, and to help investors to integrate farm animal welfare into their investment research and decision-making. By annually scoring food companies on their animal welfare policy and performance, the BBFAW provides a tool for investors seeking to evaluate the relative position and performance of food companies on farm animal welfare management and disclosure.[116]

The BBFAW differentiates between four areas: 1. Management Commitment and Policy; 2. Governance and Management; 3. Innovation and Leadership; 4. Performance Reporting and Impact. Table 18 maps the BBFAW scores of companies identified in this report with which Dutch banks have financial relationships in the period from 2012 to 2017.

Table 18 BBFAW scores of companies of which financial relationships with Dutch banks have been identified

Value segment, company	BBFAW scores				
	Commitment	Governance	Leadership	Reporting	Overall score
Chicken meat					
BRF	86%	75%	33%	52%	67%
Pilgrim's and JBS Aves (JBS)	80%	79%	67%	36%	67%
New Hope Group	14%	0%	0%	0%	4%
Plukon Food Group	n.a.	n.a.	n.a.	n.a.	n.a.
Tyson Foods	59%	75%	33%	35%	55%
Average scores Chicken meat	*60%*	*57%*	*33%*	*31%*	*48%*

Value segment, company	BBFAW scores				
	Commitment	Governance	Leadership	Reporting	Overall score
Pig meat					
Charoen Pokphand Group	49%	17%	0%	0%	20%
Triumph Foods	n.a.	n.a.	n.a.	n.a.	n.a.
Smithfield (WH Group)	29%	55%	33%	22%	36%
Vion Food Group	86%	41%	67%	31%	55%
Average scores Pig meat	*55%*	*38%*	*33%*	*18%*	*37%*
Restaurant companies					
Domino's Pizza Group	94%	57%	0%	38%	56%
McDonald's	79%	68%	100%	23%	65%
Restaurant Brands International	50%	40%	17%	13%	34%
Yum! Brands	59%	28%	17%	0%	29%
Average scores Restaurant companies	*71%*	*48%*	*34%*	*19%*	*46%*
Food retailers					
Carrefour	47%	48%	33%	13%	37%
Schwarz Unternehmenstreuhand (Kaufland)	70%	59%	83%	0%	51%
Schwarz Unternehmenstreuhand (Lidl)	49%	41%	50%	16%	39%
Average scores Food retailers	*55%*	*49%*	*55%*	*10%*	*42%*
Total average scores	**60%**	**48%**	**39%**	**19%**	**43%**

Source: Thomson EIKON, *Loans*, viewed in December 2017; Thomson EIKON, *Share Issuances*, viewed in December 2017; Thomson EIKON, *Bond Issuances*, viewed in December 2017; Bloomberg, *Loan Search*, viewed in December 2017; Bloomberg, *Aggregated Debt*, viewed in December 2017; TradeFinance Analytics, *Trade Finance*, viewed in January 2018; Kadaster, *Mortgage Register*, viewed in January 2018. [source BBFAW when published!]

Since Table 18 does not provide a comprehensive overview of all financial relationships of Dutch banks with companies ranked by BBFAW, but focuses on the largest companies in the production of chicken and pig meat, it cannot be ascertained how representative this picture is. For the purpose of this report it suffices to learn that the current finance and investment policies that Dutch banks have in place apparantly does not prevent them from financing companies that belong to the worst scoring companies in the BBFAW [check when published!].

Furthermore, it can be noted that scores for reporting are poor across the board. Since these relate to implementation, this may well point to a gap between policy and practice (as can also be observed in the Dutch Fair Bank Guide). This would explain why companies with relatively good scores in the BBFAW can still be exposed for gross animal cruelty (like Tyson Foods).

Chapter 4 Conclusions and recommendations

Via its financial relationships, Dutch banks are in many cases directly linked to large-scale, low-welfare broiler and pig production and supply chains. Globally, EUR 282 billion is invested in selected livestock and meat production companies by banks, and Dutch banks contribute to this with a relatively large share. Based on the country seats of the ultimate parents, with EUR 8.8 billion or 3% of the total identified finance, banks from the Netherlands rank seventh, after amongst others United States, United Kingdom and France. This research identified financial relationships for three out of seven assessed Dutch banking groups in the period 2012-2017 with seven chicken meat companies, eight pig meat companies, four restaurant companies and four food retailers: in total for 23 out of the 30 selected companies.

Rabobank is by far the biggest financier. It financed twelve companies with a total value of EUR 6.8 billion, representing 77% of identified finance by Dutch banks. Chicken meat producer Tyson Foods is the largest borrower with a value of EUR 1.9 billion, and JBS (EUR 1.4 billion) and Smithfield of the WH Group (EUR 1.1 billion) are second and third in the list. Of the segments researched, next to chicken meat producers, Rabobank also invested a lot in restaurant companies.

Due to its large loans to Carrefour, ING Group invested most in the foot retailers segment. ING Group financed seven companies with a total value of EUR 1.4 billion and this amount represents 15% of Dutch finance to all selected companies. The remaining 7% of Dutch finance is on the account of ABN Amro Bank, financing four companies with a total value of EUR 0.7 billion. It financed mainly the chicken meat segments, due to its large loan to Dutch chicken meat producer Plukon (EUR 563 million).

As Chapter 1 and Chapter 3 pointed out, the welfare problems of broilers and pigs in industrial livestock production cannot adequately be addressed by adhering to legislative standards, whilst international tools like the OIE standards and the IFC Good Practice Note on animal welfare are too open for interpretation to safeguard animal welfare standards at a level that fulfills responsible business conduct. Moreover, enforcement of legislation or OIE-standards is either problematic or absent.

At the same time, transitioning to better welfare food supply chains goes step by step. If too drastic changes cannot be accomodated by the dominant food system, they will fail – and consequently the animals are not helped. Consequently, broiler and pig welfare requirements are realistic to achieve and modestly ambitious compared to higher welfare standards, would still bring important improvements.

Taking into account current broiler husbandry practices, the Dutch Fair Bank Guide therefore calls upon financial institutions investing in broiler production to adhere to the following minimum welfare requirements:

- **For North American companies:**

  Full compliance by 2024 with at least Step 1 of the 5-step programme of Global Animal Partnership.[117]

- **For European companies:**

  Full compliance by 2026 with:

  - Breeds that demonstrate higher welfare outcomes, incuding the following breeds: Hubbard JA757, 787, 957, or 987, Ross Ranger, Ranger Classic, Ranger Gold, and Cobb Sasso, or others that meet the criteria of the RSPCA Broiler Breed Welfare Assessment Protocol.
  - Maximum stocking density of 30kg/m2 or less. Thinning is discouraged and must be limited to one thin per flock.
  - Meet improved environmental standards including:
    - At least 50 lux of light, including natural light.
    - At least two metres of perches, and two pecking substrates, per 1,000 birds.
    - On air quality, the requirements of Annex 2.3 of the EU broiler directive, regardless of stocking density.

- No cages or multi-tier systems.
- Multi-phase controlled atmospheric stunning or effective electrical stunning without live inversion.

  Compliance must be demonstrated with the above standards via third-party auditing and annual public reporting on progress towards this commitment. In addition, it is necessary to require companies to comply with all EU animal welfare laws and regulations, regardless of the country of production. For implementation, the ISO TS 34700 could be formally used.

  These requirements are aligned with international animal protection NGOs, including the Eurogroup for Animals.[118] They are comparable with the GAP step 1 broiler requirements (see 3.3.5). Moreover, the requirements are comparable to the welfare specifications of Dutch retailers (see section 3.3).

- **For other regions:**

  Commitment to the same minimum level of broiler welfare. The time of full compliance may be region-specific.

Since the investment cycle of cage systems is likely to be well beyond 6-8 years, this requires stopping any investment in cage systems with immediate effect in all regions.

For pigs, the situation is more complex. The uptake of NGO-led private schemes – for example the RSPCA Assured label by McDonalds – is positive. Progress has also been made regarding the housing of sows. Confinement in gestation crates has been greatly restricted within the EU, whilst a series of companies have committed to phasing out this practice before the mid 2020s. However, this doesn't necessarily mean that sows are group housed in a sufficiently enriched environment. Moreover, commitments of companies to outphasing farrowing crates are rare.

In the same vein, enrichment for fattening pigs remain an enormous challenge, even for production within the EU. The same holds true for other problematic practices, like castration without anesthesia, transport and slaughter. Incremental implementation of welfare improvements are therefore likely to have different timelines per issue and per region.

The Dutch Fair Bank Guide calls upon financial institutions investing in pig production to publicly commit to the following minimum welfare requirements:

- Non-confinement housing of sows (gestation and farrowing).
- Daily access to edible enrichment for all pigs including nesting material for sows to enable varied natural behaviours.
- Suitable genetics and breeding for a balance of welfare and production outcomes.
- Suitable space, air, light and temperature and enough solid/comfortable flooring for all pigs.
- Nutrition and feeding to satisfy physical and behavioural needs.
- Pain relief for procedures (and a plan for phasing out procedures).
- Weaning from a minimum of 25 days.
- Reduce/phase out prophylactic antibiotic use and beta agonists (ractopamine) and use no growth promotants.

Since the investment cycle of gestation crates is well beyond 7 years, for banks this would mean amonst others to stop investments for building these crates with immediate effect. Various reports and case studies have demonstrated that for new builds, establishing sow group housing can be cheaper or equivalent in capital cost, or in certain markets (e.g. US) the small additional cost (2-5%) can be outweighed by consumer willingness to pay. Further production and labour benefits ensure to offset any additional operational costs, if incurred.[119]

Taking these conclusions into consideration, the Dutch Fair Bank Guide calls upon the banks to uphold the these minimum welfare requirements and recommends them to do this by:

1. Making a public commitment that not only adheres to general principles of animal welfare but further details the expectations from companies, reflecting the above minimum requirements.
2. Supporting clients and investee companies in their efforts towards a transition to using industry standards that bring animal welfare practices in the industrial livestock sector to a higher level, starting with the level as laid down in the above minimum requirements.
3. Setting clear and time-bound targets to achieve the above minimum requirements by clients and the industry as a whole.
4. Considering the above minimum requirements as conditions in the contracts for loans and project finance.
5. Ending financial relationships with companies that do not show any change of behaviour within a given timeframe after having been engaged with by the bank.
6. Banning investments in building housing facilities using gestation crates for sows and broiler chickens in cages with immediate effect, and instead invest in building facilities with enriched sow goup housing and open floor systems for broilers.

Appendix 1 Selection of companies

The industrial or intensive livestock production follows a business model based on exploiting economies of scale, with the main objective to maximize profitability and is characterised by highly specialised genetic selection, high stocking densities and a lack of natural light and environmental enrichment. As a result of breeding, housing conditions and management practices animal welfare is at risk in the industrial livestock production. As this risk is systematic and inherent to the sector, the selection of companies to be linked with Dutch banking groups through financial relationships is not based on cases of violations of animal welfare, but on size of companies.

Chicken meat producing companies

The chicken meat value chain comprises input providers (feed and machinery), hatchery, agricultural farms, slaughter houses, food processing companies, retailers, and restaurants. Most of the largest chicken meat producing companies are vertically integrated and own majority of the stages in the value chain i.e. feed manufacturing, hatchery, chicken farms, slaughter houses, and food processing.

The selection of chicken meat companies is based on the Poultry International – 2015 World's Top Poultry Companies report. The companies for this case study are selected by taking into account the following considerations:

- The ranking is based on number of birds slaughtered annually in a country. Therefore, if a company has the highest number of birds slaughtered in two countries, we have added the two numbers to get a bigger picture. It is possible that a company is active in other countries and the actual number of birds slaughtered is much higher than what is shown in 0.
- The companies selected includes mostly chicken producers, but they also produce turkey, ducks, and eggs. It is also possible that these companies are active in other meat products such as beef or pork.
- Both public and private sector companies are considered.
- From Poultry International's ranking, top seven companies are considered. Furthermore:
  - Pilgrim and JBS Aves Brasil rank at number third and fourth respectively and are taken together as they belong to the same parent company JBS Brazil.
  - Tyson US numbers are added with Tyson Mexico operations to get a better picture.
  - To include some EU based companies, LDC, Plukon, PHW, and 2 Sisters Food Group are added to the selection, even though they are ranked 12, 14, 16, and 20 respectively.

0 presents the outcome of the selection of chicken meat companies.[vii]

[vii] As a consequence, this selection doesn't include the large Ukrainian broiler producer MHP, with which Rabobank has multiple financial relationships. See: Merrill Corporation (2013, March 25), "MHP, Offering Memorandum for 8.25% Senior Notes due 2020", online: http://www.ise.ie/debt_documents/ListingParticulars_56b582b3-8e7a-4291-a414-b248db7ac111.PDF?v=2632015> p.176-7, viewed in August 2017; Atradius (n.d.), "Afgegeven polissen", online: https://atradiusdutchstatebusiness.nl/nl/publicaties/afgegeven-polissen.html, viewed in August 2017.

Table 19 Selected chicken meat companies

No.	Company	Birds slaughtered per year (in millions)	Country	Public/Private
1	Pilgrim's and JBS Aves Brazil (JBS)	4,274	US and Brazil	Private
2	Tyson Foods (including US and Mexico operations)	2056	US	Public
3	BRF	1664	Brazil	Public
4	Guangdong Wen's Food Group	714	China	Public
5	Industrias Bachoco	702	Mexico	Public
6	New Hope Liuhe (New Hope Group)	700	China	Private
7	LDC	370	France	Private
8	Plukon Food Group	354	Netherlands	Private
9	PHW Group	350	Germany	Private
10	2 Sisters Food Group	317	UK	Private

Source: Plantz, B. (2016), "2015 World's Top Poultry Companies", *Poultry International*, volume 54(10), p. 9.

Pig meat producing companies

The pig meat production value chain comprises input providers such as feed, machinery, and veterinary services; production companies that breed and raise piglets; processing companies that slaughter and process meat into various forms, and at the end there are retailers and restaurants.[120] The case study focuses on the top producers and processors of pig meat given their direct links. The input providers are out of scope for this study. Retailers and restaurants are selected separately as they are not classified based on species.

The selection is based on the ranking of top 40 pig meat producers and top 40 pig meat processors published in Pig International in November 2016. For top pig meat producers, the number of sows under control or contract is considered, as usually the grown pigs are sold to the processors for slaughtering and processing. For the meat processors, the ranking is done considering number of heads slaughtered annually. From the available two rankings, a selection of ten pig meat companies is done to ensure a good mix of producers and processors as shown in Table 20. The companies for this case study are selected taking into account the following considerations:[121]

- Smithfield (since 2013 part of WH Group, which was previously known as Shuanghui Group) is the biggest player in both the pig meat producers and processors rankings.
- From top pig meat producers ranking, Guangdong Wen's Food Group from the second position is removed as it is included in chicken meat companies. CP Group, Thai Foods Group, and Triumph Foods at the 3, 4, and 5 positions respectively, are taken. Cooperl Arc Atlantique from France is also considered from the 10 position.
- From top pig meat processors, JBS Foods International (parent JBS SA) at the second position is removed from this selection, as it is considered in the chicken meat selection. Danish Crown, Tonnies, Yuron Group, Vion Food Group, and Hormel Foods at position 3, 4, 5, 6, and 7 respectively, are considered.

Table 20 presents the outcome of the selection of pig meat companies.

Table 20 Selected pig meat companies

No.	Company	Heads slaughtered per year (in millions)	Number of sows (*1,000)	Country	Public/Private
1	Smithfield (WH Group)	48.3	1,140	United States	Private
2	CP Group		544	Thailand	Private
3	Thai Foods Group		540	Thailand	Public
4	Triumph Foods		385	United States	Private
5	Cooperl Arc Atlantique		250	France	Private
6	Danish Crown	22		Denmark	Private
7	Tönnies	17.5		Germany	Private
8	Yurun Group	16.5		China	Public
9	Vion Food Group	15.7		Netherlands	Private
10	Hormel Foods	13		United States	Public

Source: Plantz, B. (2016), "World's 40 leading pig producers and processors", *Pig International*, volume 46(7): 6-17., p. 6.

Retailers and restaurants

The retailers and restaurants are at the end of the value chain of chicken and pig meat. These are the largest retailers and restaurants in the world and offer many other products besides chicken and pig meat products. However, given their string bargaining power with the suppliers in the value chain, they can play a very influential role in making the production of meat free from any animal cruelty. Being closest to the end consumer of the products they are exposed to huge reputational risk, and thus have a strong business case for animal welfare.

The selection of retailers have been taken from the 2016 Global Powers of Retailing report from Deloitte Touche Tohmatsu. From the list of retailers, Costco Wholesale Corporation at the second position is removed as it is wholesale. Kroger, at the third position is also not considered for this study due to its presence mainly in the US[122]. With the two adjustments, Table 21 presents the outcome of the selection of food retailers.

Table 21 Selected food retailers

No.	Company	Retail revenue 2014 (US$M)	Country	Public/Private
1	Wal-Mart Stores	485,651	United States	Public
2	Schwarz Unternehmenstreuhand	102,694	Germany	Private
3	Tesco	99,713	UK	Public
4	Carrefour	98,497	France	Public
5	Aldi Einkauf	86,470	Germany	Private

Source: Deloitte (2016, January 13), *Global Powers of Retailing 2016,* p. 12.

For selecting the largest fast food restaurants, the ranking from the World Atlas - based on the number of outlets- is considered. However, special attention is given to their product portfolio as well. For example, as per the ranking, Starbucks is ranked 3, but is excluded from this selection as the company is focused on coffee brewing business. From the ranking, Subway, McDonalds, KFC and Pizza Hut taken together (parent Yum! Brands), Burger King (Restaurant Brands International, and Domino's Pizza Group is considered for this study. Table 22 presents the selected restaurant companies for this study.

Table 22 Selected restaurant companies

No.	Company	Number of outlets	Country	Public/Private
1	Subway	44,852	United States	Private
2	McDonald’s	36,525	United States	Public
3	KFC and Pizza Hut (Yum! Brands)	19,420 13,728	United States	Private
4	Burger King (Restaurant Brands International)	15,000	United States	Private
5	Domino’s Pizza Group	10,988	UK	Public

Source: Chepkemoi. J. (2017, April 25), “The World's Largest Fast Food Restaurant Chains”, World Atlas.

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