INTERNATIONAL BUSINESS 2006/07

Exploring market opportunities in

BRAZIL

International Business

Area:	8,511,965 sq km
Population:	188,078,227
Languages:	Portuguese (official), Spanish, English, French
Capital:	Brasilia
Government type:	Federative republic
Religions:	Roman Catholic (nominal) 73.6%, Protestant 15.4%, Spiritualist 1.3%, Bantu/voodoo 0.3%, other 1.8%, unspecified 0.2%, none 7.4%
Currency:	Real (BRL)
Border Countries:	Argentina 1,261 km, Bolivia 3,423 km, Colombia 1,644 km, French Guiana 730.4 km, Guyana 1,606 km, Paraguay 1,365 km, Peru 2,995 km, Suriname 593 km, Uruguay 1,068 km, Venezuela 2,200 km
Coastline:	7,491 km
National Holiday:	7.September (Independence day, 1822)

International Business

A unique student project

International Business (IB) is an annual project carried out by students attending the Norwegian universities of science and technology (NTNU), the Norwegian School of Economics and Business Administration (NHH), and the Norwegian school of Management (BI). This unique and recognized project is carried out in close collaboration with Innovation Norway and their network of contacts in development of this report. The main purpose of this project is to study potential markets for international business ventures, and support Norwegian enterprises considering entering these markets. Since its beginning in 1984, IB has visited all continents, each year selecting a new country of focus in cooperation with Innovation Norway.

Developments and trends beyond our boarders are determent for a small country like Norway. Globalization and increased business complexity increases the importance of such elements and pull foreign markets and the opportunities they offer closer to us. To take advantages of these opportunities and understanding the development, information and knowledge is vital. IB's primary goal is to provide information and insight into areas that are important to enterprises waiting to set up business or invest in foreign markets.

IB also develops the participating students' international understanding as communication and information gathering skills, and is a forum for contact between students and the business sector. The information and conclusions of the report are based on extensive research prior to our stay abroad and our meeting with companies and institutions in the country of focus. The whole project is financed through the companies advertising in this report and their extensive goodwill. We would like to use this opportunities to thank them for their support, a necessarily to render this project possible.

In addition to the paper-copy, the report is also available on our website: www.ib.no. Some of the earlier reports and works and future information about International Business is also available at our home page.

International Business is an independent, voluntary, non-profit student organisation, and is fully responsible for the content in this report.

Acknowledgements

Sergio Eduardo Moreira Lima

Ambassador, Brazilian Embassy – Oslo

Brazil and Norway have strong relations and are widening their diplomatic and economic agenda.

Brazil is the largest market for Norwegian trade and investments in Latin America. In 2006, Norway became the main destination of Brazilian exports to the Nordic countries. Bilateral trade is reaching one billion dollars.

The visit of His Majesty King Harald V to Brazil in 2003, accompanied by high level governmental and business delegations, represents a landmark in our relations. Since then, important official and entrepreneurial visits from both countries have taken place. New Norwegian companies as well as joint-ventures have been established in Brazil.
I intend to work hard to further enhance this positive trend.

The presence in Brazil of students from the Norwegian University of Science and Technology (NTNU), the Norwegian School of Economics and Business Administration (NHH) and the Norwegian School of Management (BI) has become a welcome tradition. It contributes to those common objectives of strengthening mutual knowledge of each other societies and promoting bilateral cooperation and friendship.

The Brazilian Embassy in Norway fully supports this initiative and I wish to convey to its organizers and participants my appreciation and best wishes.

Ambassador, Royal Norwegian Embassy – Brasilia

The Royal Norwegian Embassy in Brasilia hereby confirms that International Business (IB) is a highly recognized student project that aims to increase Norwegian business activity abroad.

The project has members from three leading academic institutions of Norway: the Norwegian University of Science and Technology (NTNU), the Norwegian School of Economics and Business Administration (NHH) and the Norwegian School of Management (BI). The students co-operate with the Norwegian Trade Council, Innovation Norway.

Annually, IB carries out a new business project to increase knowledge about markets abroad. In 2007 the project will focus on Brazil. The project aims to analyse and provide information on the Brazilian market to Norwegian companies. Furthermore, the project attempts to develop an awareness of both ethical and cultural issues that may occur in interaction with a relatively new market for Norwegian companies.

However, to achieve these goals, IB will need the co-operation of Brazilian companies, organisations as well as authorities. The Royal Norwegian Embassy acknowledges the importance of this initiative. All assistance rendered to IB during their work and stay in Brazil will be highly appreciated.

Jan Gerhard Lassen

Gunn Ovesen

Managing director, Innovasjon Norge

Brazil is a huge country with a population of about 190 million individuals. Among these, about 40 million have the purchasing power comparable to that of Scandinavians. It is rich on natural resources and is also a key country in the Mercosul trading bloc. Despite its problems with wealth distribution and the last year's economic recession, Brazil is considered a positive market for foreign investment according to the latest Standard & Poor risk evaluation. Due to firm political efforts the country has avoided inflation during the greater part of the 1990s, and even after the currency crisis in January 1999, the economy has managed to pick up without falling back into the grip of inflation. The GDP is expected to rise around 3,6 % in 2006.

Norwegian companies have a long tradition of involvement in Brazil, particularly in the areas of seafood exports and shipping. But compared to our neighbour Sweden for example, we lay far behind when it comes to volume. Direct foreign investment reached a peak of 20 billion USD in 2005, making Brazil the 3rd largest recipient of such capital. Forecast for 2006 is 23 billion USD. Currently, more than 50 Norwegian companies are registered in Brazil.

There are five main areas where we see a significant prospect for growth and opportunities for Norwegian companies. They include:
• Oil/Energy
• Shipping/shipbuilding
• IT and Telecommunications
• Food industry (primarily seafood)
• Tourism

In the area of oil and energy, the old state monopoly of Petrobras has given way to the possibility of bringing in national and international players. As Norwegian industry has a long-standing experience in this field, this is a very propitious moment for entering the Brazilian market.

When it comes to telecommunications and IT-related industry, we see the same trend of breaking up of the old public telephone companies, thus creating space for new investments and activities. This comes in addition to the general global focus on these industries.

As previously mentioned within the areas of shipping and seafood, there is a traditional Norwegian presence in the Brazilian market which can be further exploited. An interesting addition to seafood-related activities is Norwegian participation in aquaculture projects. The Norwegian Seafood Export Council has an office in Rio de Janeiro.

The Norwegian Government has shown a growing interest in the country in recent years. It has elaborated a Latin America Plan, intending to strengthen ties with South American nations.

International Business has chosen a market with great potential for their 2006/2007 project. The project shall contribute in spreading valuable information about the Brazilian market to would-be Norwegian investors. Hence, the strong interest shown by Norwegian business sectors towards Brazil make this year's project of International Business more relevant to develop the bilateral co-operation and trade.

Terje Staalstrøm

President, Brazilian-Norwegian Chamber of Commerce

Brazilian-Norwegian Chamber of Commerce's objective is to strengthen the commercial contact between Norway and Brazil, and to be an assembly for Norwegian companies and private persons with relations to Brazilian business life. Today, we represent 60 Norwegian businesses and self-employees.

The Chamber of Commerce looks very positively on initiatives that increase the understanding of opportunities Brazil has for Norwegian businesses. Currently, Norway is strongly represented in Brazil within certain areas of business, such as oil & gas exploration, export of clip fish and tourism. However the potential for increased trade between Norway and Brazil is much larger, and the interdisciplinary student project, International Business (IB), is regarded as an important contribution. The objective is to increase the understanding of potential opportunities for Norway with regards to export of goods & services and import of Brazilian products.

The Chamber of Commerce is positive to the initiative taken on by International Business, and wishes the participant all the best of luck.

Chargé d`Affaires, Embassy of Brazil – Oslo

Brazil is the biggest Norwegian partner in Latin America. Since the visit of the Vice President Marco Maciel in 2002, heading a very important Brazilian business delegation to Norway, and the Royal visit to Brazil in 2003, accompanied by the greatest Norwegian business delegation ever, both countries have been expanding their bilateral trade relations significantly.

I consider the International Business project to be a very positive initiative, which will surely further intensify the existing good relations between our two countries, and outline new opportunities for investment and cooperation.

In addition to provide a better understanding about Brazil to the participants, this projected study trip will offer a new group of Norwegian friends to our country

Renate Stille

Odd Eriksen

Former Minister of Trade and Industry

Images of cheering people singing and dancing in the streets to the beat of music and the scent of fireworks and joy in the air. It is carnival in Rio de Janeiro, and the images are broadcast live around the globe. Next year 80 million people will witness one of the most comprehensive Norwegian promotional efforts in recent years. One of the traditional samba schools in Rio de Janeiro has chosen Norway and Norwegian bacalao as their theme in the carnival. This worldwide attention and focus are prerogatives of a global world where distances are shorter and news are spread around the world in a matter of seconds.

Bilateral trade between Brazil and Norway is strong, and I am pleased to note that the trade has nearly doubled over the past six years. While Norwegian fish is the unlikely star of the samba-show in Rio de Janeiro, Brazilian coffee and soybeans have established a stronghold in Norwegian households. Brazil is Norway's most important trading partner in Latin America and a very interesting market for Norwegian businesses. Norwegian companies are present in Brazil on a large scale. Although mainly focusing on traditional sectors such as the maritime sector and the petroleum sector, Norwegian companies are also present within the Brazilian financial market sector, IT and telecommunications. And many more are on the verge of entering this exciting market.

The availability of, and access to, information is a prerequisite for businesses' successful establishment in foreign markets. The need of gaining more and more knowledge and information is one of the challenges posed by globalization. In my position as Minister of Trade and Industry I am therefore proud to support the well-established student project International Business. Its purpose is to explore and define potential international markets for Norwegian companies as well as providing them with necessary information. Not only is this student project a pioneer of its kind, it seeks to provide the business community with the tools necessary to take full advantage of the opportunities offered by the global economy. I strongly support the project's cause and I feel certain that the results will contribute to further strengthening the bilateral trade relationship between Brazil and Norway.

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1.1 History

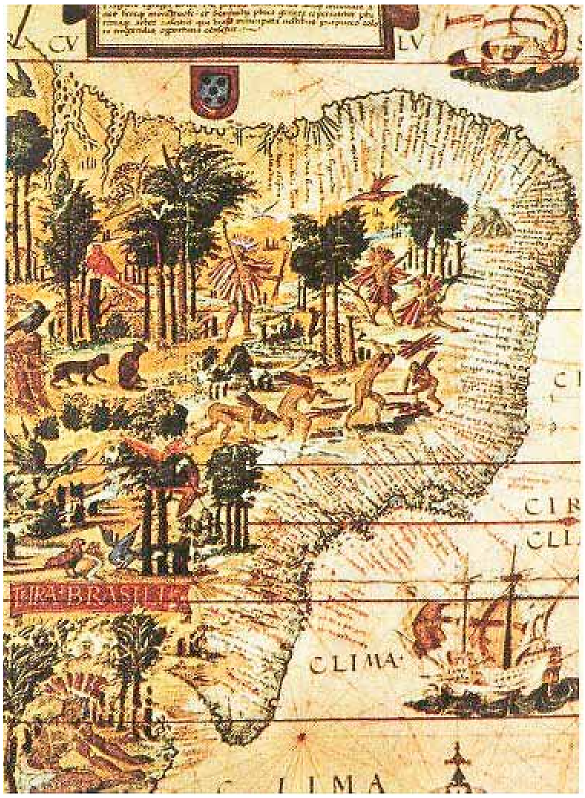
History as the foundation for the large inequalities in Brazil

When the Portuguese discovered what was to become Brazil in 1500 AD, the land had already been populated for as long as 50 000 years. However, the Brazilian Indians never developed any advanced civilization, so little remains for scientists and archaeologists to ponder on.

When the Portuguese, lead by Pedro Álvares, put their feet on Brazilian soil for the first time on April 22, 1500AD, they landed in Porto Seguro in the Bahia region, northeast in Brazil. However, it was in 1531 that King João III sent the first settlers to Brazil. The first settlement sprung up in São Vicente, near what is now the port of Santos.

The settlers had little interest in colonization. Instead they were interested in whatever natural resources the new land could contain. First they started exporting out the hard wood called Brazil wood (Pau Brazil, the tree that has given the country its name). Soon competition for the most attractive spots resulted in fighting, and the Brazil wood market was monopolized. The settlers realized that although the Brazilian coastline was not as rich on species and ivory like the African coast, sugarcane grew well.

Sugar arrived in Brazil in 1532, and has been an important industry in Brazil ever since. With the sugar industry and the increasing need for a workforce came the slaves from Africa. Between 1550 and 1888, when slavery was abolished, around 3.6 million Africans had been sent to Brazil.



Portuguese map of Brazil from 1540

As the Europeans and the slaves mainly stayed in the Bahia region northeast in Brazil, many native Indians moved further north to escape slavery and conflicts with the Europeans. In the north, there were not as many possibilities for the Europeans in form of natural resources, so the Indians were left alone.

In the beginning of the eighteenth century gold was discovered in the region of Minas Gerais, and within that century the population grew from 30 000 to almost 500 000. Many slaves, an estimated one third of the total number of slaves sent to Brazil during the eighteenth century, were sent to the gold mines. However, the gold rush did not last. In 1750 the production was declining and it lost its great economic potential.

In 1789 the first organized movement to work for independence arose. The movement was lead by Tiradentes, a dentist who lived in Ouro Prêto. Together with eleven men, who were furious because of attempts to collect taxes, Tiradentes talked about how they could stand up and fight against the Portuguese power. Soon, they all were arrested and sentenced to death in order to warn against further conspiracies. Tiradentes and his fellow conspirators remain heroes to this day.

In the end independence came in 1822. Brazil was the only country in South America to gain independence without one shot being fired or any blood drawn. After only a short while, in 1889, monarchy was abolished and Brazil as a republic was born. Approximately at the same time, in 1888, slavery was banned (almost 60 years after it had been banned in Britain.)

Slavery had long been the foundation for the social inequality in Brazil. As approximately 800 000 slaves suddenly became free, many of them sought their fortune in the cities. They moved into small communities called favelas, small shantytowns that still remain in the city landscape. The first one appeared in Rio as early as in 1897.

At the same time, in the 1890s, Brazil first opened its borders. Some 800 000 European immigrants immediately steamed into the country, most of them Italian. Not long after, some million more immigrants flooded the country, mainly from Japan, Germany, Spain and Portugal. Over the next century, millions of immigrants came to Brazil. Especially as the Nazis started persecuting the Jews, Brazil became a safe place for them.

In cities such as Rio De Janeiro Favelas are visible and often located close to the main city areas.

Then, after the Second World War, many Nazis found shelter in Brazil to avoid any war crime tribunal.

The first autocratic president of Brazil, Vargas, came to power in 1937. He was supportive of Mussolini's line in Europe, but at the same time backing the working class as well. It was due to him that the labor unions in Brazil got their heavily bureaucratic legislation, and he enabled the workers in Brazil to start getting power. At the same time, his fascistic state brought racism back to the country, a problem that remains to this day.

As the history describes, there are many reasons for the large regional differences in Brazil. The native Indians escaped north, a region that today remains a region of poverty. Rio de Janeiro became a large centre due to its long traditions as the capital of Brazil, and due to the sugar plantations surrounding the city. Minas Gerais became important due to the rapid (however short) wealth of gold, followed by coffee plantations. Sao Paulo became the stopover for many pioneers and explorers that were to search for resources, as well as an important point of commerce for sugar trade. The south of Brazil is where most immigrants went, and in the south you can find large settlements of immigrants, especially of German and Italian immigrants. At the same time, the culture of Brazil is heavily influenced by the fusion of European, Indian and African culture.

1.2 Brazilian politics

Introduction

It is only during the last two decades that Brazil has enjoyed the privilege of a fully developed democracy with relatively free fair and competitive elections. After restoring the civilian government legislation in 1985 the requirements for creating new parties were liberalized. This created a great increase of political parties in Brazil, and the political environment slowly went from right to left during the next two decades. Fifteen years ago very few people would have predicted that Lula was to be elected for presidency in the 2002 elections.

Constitution

> "We, the representatives of the Brazilian People, convened in the National Constituent Assembly to institute a Democratic State, for the purpose of ensuring the exercise of social and individual rights, liberty, security, well-being, development, equality and justice as supreme values of a fraternal, pluralist and unprejudiced society, founded on social harmony and committed, in the internal and international orders, to the peaceful settlement of disputes, promulgate, under the protection of God, this CONSTITUTION OF THE FEDERATIVE REPUBLIC OF BRAZIL."

Government type:	Federative republic
Administrative divisions:	26 states and 1 federal district
Constitution:	5th October 1988
Executive branch:	Chief of state and Head of government: President Luiz Inacio Lula da Silva
Legislative branch:	National Congress (Federal Senate and Chamber of Deputies)
Judicial branch:	Supreme Federal Tribunal, Higher Tibunal of Justice and Regional Federal Tribunal.

The seventh and current Brazilian Constitution was published on October 5, 1988 after a two-year process in which a constitutional congress wrote it from scratch. It appears to be a reaction to the period of military dictatorship, seeking to guarantee all manner of rights and restricting the state's ability to limit freedom, to punish offences and to regulate individual life. On the other hand, it did not provide clear rules for state reform and kept the economic regulation of the country intact. In the following years, especially from 1995 and onwards, this constitution had to be amended many times in order to get rid of outdated, conflicting and unclear provisions. As of March 2006 this Constitution has been amended 52 times.

This constitution was the first to demand the violation of civil liberties and rights to be punished severely. As a follow-up to this demand, Brazil approved a law that defined spreading of bias against any minority or ethnic group to be a very serious crime. This aspect helped disabled people to having reserved a percentage of jobs in the public service and colored people to seek compensation for prejudice in the courts.

Introduction to Political Parties

Despite the fact that there are 27 parties officially registered in Brazil, only a few of them have any significant influence on Brazilian politics. Of the 18 parties represented in Congress, four account for approx 70% of the seats in the Chamber of Deputies, and more than half of those in the Senate.

The PSDB held the presidency for two consecutive mandates between 1994 and 2003, followed by the PT which has been in power since 2003.

PT	Workers' Party
PFL	Liberal Front Party
PMDB	Party of the Brazilian Democratic Movement
PSDB	Brazilian Social Democratic Party
PTB	Brazilian Labor Party
PL	Liberal Party
PSB	Brazilian Socialist Party
PPS	Socialist People's Party
PDT	Democratic Labor Party
PCdoB	Brazilian Communist Party

The PT – Workers' Party

PT

The PT won the elections for the first time in 2002. Having lost the previous three presidential elections, the PT moderated its standpoint in the 2002 election to reach out to the broader general public. They experienced a 4-year struggle against corruption scandals and failing

growth. In 2006, the Lula government decided to run for re-election. After almost winning the first round outright, they won the second round by a margin of 20 million votes against the PSDB. The PT traces its origins to trade union struggles against the military regime in the 1970s and early 1980s. Lula was in his early political career one of the founders of the PT, in cooperation with union leaders and academics. As part of the modern social-democratic wing of the PT, Lula now espouses a range of sensible economic and social policies. He accepts that the market and the private sector play an important role and contributes to the country's economic growth and development.

These views are not universally accepted within the PT. At the end of 2003 the government demonstrated its determination to carry through its agenda by expelling the legislators who had voted against the social security reform of the PT from the party.

Opposition

While President Luiz Inácio Lula da Silva puts together a government from the 11 different parties which support his administration, the two main opposition parties, the PSDB and the PFL, are trying to recover from their booming defeat in the presidential elections. Both parties face another four years of struggling to gather strength to form a strong opposition, and put forward a either separate or joint candidate to win the presidency in the 2010 elections.

The opposition practically got a gift from the Lula government when the "bribes for vote" scandal came forward in the mid 2005. This scandal practically tore the PT to pieces and destroyed the credibility of the party. Later on followed more cases of corrupt and criminal behavior of which the PT responded in a very incompetent way. Despite all this propaganda material falling into the opposition's hands, it did not manage to benefit from it and Lula ended up winning the elections.

The PSDB has lately shown signs of a split and the party announces it will be more democratic in the way it chooses its future candidate. It is also currently updating the party's program carrying out surveys to map its strengths in each state, and studying how to become more effective in getting its message out to voters.

On the other hand, the PFL is taking a radical approach and has announced that the party would change its name to the Democratic Party as part of its new strategy. The PFL is seen as a center-right party, which roots draw back to parties supporting the military rule. Part of its arguments for changing name to the Democratic Party is to evade these associations.

After this presidency the Constitution states that Lula cannot stand again. The greatest challenge for the PTs is that they do not have any apparent successor. On the other hand the PSDB has two good potential candidates in Serra, who lost to Lula in 2002, and Aecio Neves, the governor of Minas Gerais.

The National Congress, Brasilia.

Case study 1.21: Luiz Inacio Lula da Silva

President Lula de Silva
Source: Citymajors.com

Luiz Inacio Lula da Silva, popularly known as Lula, secured his second term in the October 2006 elections which he won by good margins. He has promised to continue his fight to narrow the gap between rich and poor, and at the same time he will work for economic growth. The population hopes his second term will become better than the first one, which was dominated by some major corruption scandals and a very slow economic growth.

Lula was born into poverty in the northeast of the country in 1945, and trained within metallurgy. He started working in the automotive industry of Sao Paulo. After he lost one of his fingers in a working accident he made career in the Metalworkers Union, a significant Labor Union in the Sao Paulo area. In 1975, he was elected president of the union, and became spokesperson for a series of strikes in 1978-81. He then became one of the founders of the now ruling party PT.

After three unsuccessful runs for presidency, he finally became president of Brazil in 2002. Starting out as a leftist politician, he has gradually drifted towards the center rather than to the left over time, advocating reform rather than revolution. Diplomatically, he is in favor of more regional cooperation in style of the European Union, and urges for solidarity amongst developing nations. However, he has avoided the intense confrontations preferred by his Venezuelan and Bolivian counterparts.

In his first term he implemented tough fiscal policies, overseeing economic stabilization, falling levels of inflation and increasing foreign account deficit decreasing foreign debt. At the same time, he was able to channel resources to social programs favoring the poor of Brazil. Inflation, previously a large problem in the country, is now under control, and the Real has never been stronger. The banks in Brazil have never made more money than they did under Lulas first term, and the Stock Exchange broke record after record.

Lula is perhaps the US' only lighthouse in Brazil, and may be seen as a barricade against President Chavez of Venezuela and his regional attraction. Although Lula so far has avoided an open confrontation with his neighboring president, Chavez' strategy of embracing the Brazilian leader obviously has not worked.

Case study 1.22: The Bolsa Familia Program

Brazil's poverty, inequality and social context point to an important role for social policy. While growth is important for poverty reduction, investments in the social sectors are also crucial for deepening and sustaining welfare improvements for the poor.

The Bolsa Família Program (BFP) was launched in October 2003 as President Lula's flagship social program in support of his "Zero Hunger" initiative. Like other "conditional cash transfers", the BFP seeks to help:

- reduce current poverty and inequality, by providing cash transfers to extremely poor families
- break the inter-generational transmission of poverty by conditioning these transfers on beneficiary compliance with requirements such as school attendance, vaccines, and pre-natal visits.

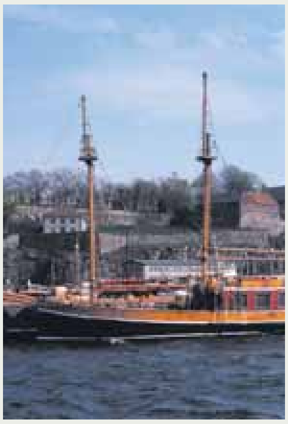
The program, which has expanded rapidly, currently covers more than 8 million families (about 34 million people). The BFP aims to provide universal coverage of the poor by 2006 (an estimated 11.2 million families or about 44 million people).

Although the program is relatively young, some results are already apparent, including:

- efficiency gains
- positive impacts on local economies
- strong targeting to the poorest
- contributions to improved education outcomes
- impacts on children's growth, food consumption, and diet quality

Sources: The World Bank, http://go.worldbank.org/QCZI04L470

BI Norwegian School of Management



BI Norwegian School of Management (BI) is a fully-fledged, internationally accredited (EQUIS) and independent academic institution in the area of Business and Management. In size, BI is one of the largest business school in Europe and one of the larger academic institutions in Norway.
BI's main and brand new campus is located in Oslo and is an innovative, state-of-the-art teaching and research facility of Scandinavian design.

The Financial Times ranked BI amongst the best business school in Europe. BI has exchange agreements with leading US schools like Carlson School of Management of the University of Minnesota, University of Wisconsin – Madison, Texas A&M University etc.

BI is inspired by the Scandinavian tradition of management. Scandinavia is perhaps the closest you can come to a postindustrial knowledge economy. Scandinavian companies are also the innovators of participatory management techniques and network forms of organization. BI adds its focus on ethics and corporate social responsibility to these qualities.

In addition to undergraduate course taught in Norwegian, BI offers a full range of programmes taught in English:

- *BBA*
- *Two-year master programmes with a wide range of specializations*
- *Full-time MBA and Part-time executive MBA programmes (work experience required)*
- *Executive Master in Energy Management*
- *International Summer Programme*

Executive Master in Energy Management

Learn about the world of Energy Management in Norway, one the world's leading oil and gas producers! The 12-month, part-time programme provides management education with an international focus, tailored to the needs of the energy sector. A further international dimension is secured through cooperation with two leading French business schools.

International Summer Programme

Enjoy the Norwegian summer with days that last forever! This three-week, full-time programme (June 23 - July 14) focuses on 'Intercultural Management, a Norwegian/Scandinavian Perspective'. It includes a wide range of social activities, company visits and a course series on 'Norwegian life and Society'.

www.bi.edu

BI NORWEGIAN SCHOOL OF MANAGEMENT

1.3 Labor Unions

The labor unions in Brazil are major players in the Brazilian political scene today. They have long experience as a political force, as some of them were key organizations to make a challenge to the military dictatorship that ruled the country for more than 30 years.

Mr. Lula de Silva won the race for presidency in 2002 with considerable support from some of the leading unions. The party he represents, the Labor Party (PT), originated from CUT, the largest labor union in Brazil. This rather surprising result was partly a result of the labor unions' gradual shift from radical socialism to more realistic political and economic strategies.

The change in political focus came as a result of the labor unions' growing conscience towards their own political and constitutional potential. The strategies of the early labor unions were characterized by frequent strikes and mass mobilization. However, these means lost influence in the beginning of the 1990s, and the labor unions had to rethink their strategies and position.

Now, as the labor unions have a more direct influence on the political life through their direct connections to the leading political parties, they can start the complex work of changing the legislation that restricts the labor unions today. The labor unions in Brazil were first organized in 1943 after the corporate lines used by Mussolini in fascist Italy in the 1930s. Amazingly, the regulations and laws they operated after still stand today, by the consolidated labor laws of 1943. This is the reason why much of the system surrounding the trade unions is very hard for outsiders to understand.

By law, every worker has to pay a fee to the labor union that represents them, regardless of whether the worker is a member or not. This fee is one day's salary per year. In addition there is a union due for the union members. This is the base of financing for the labor unions.

In Brazil, a worker automatically belongs to a trade union, defined by the region the worker works in, and the field of work. For example, a metallurgy worker in Sao Paulo automatically belongs to the Sao Paulo metallurgy labor union, and has to pay one day's wages each year to them. The only choice the worker has is whether to be a member or not.

All in total, there are around 18 000 labor unions in Brazil, of which around 7000 are federally controlled employers unions. In each of these unions, there are seven people in the administration. The seven representatives of the workers are protected by law in the period they sit in this administration, usually three years. This means that they cannot be dismissed during this period. However, it is always difficult to find people willing to join the administrations, as they have tended to be dismissed after the period is over. The negotiations between labor unions and employers unions are done by the seven in the administration.

On top of this you find the union federations that enclose the local labor unions. In Brazil there are seven, with CUT being one of the largest consisting of 3849 labor unions, more than a third of the labor union total. This federation is very closely connected to the ruling Labor Party, PT.

First of all, this system results in a vast difference in income amongst the labor unions, as some working groups are much bigger than others. The metallurgic labor union of Sao Paulo is the strongest labor union in the country, with the one in Sao Bernado ranking as the second most powerful.

Second, the law gives everyone the right to start a new labor union in an area if there is not anyone present, and then the workers working in this field automatically have to pay the fee to this union. This is a point where numerous people in Brazil have made a small fortune. The new labor unions do not even need to have any registered members.

This is one of the laws some of the trade organizations want to change, in order to give workers a greater choice, and to balance power more appropriately. However, this is not happening, and according to a CUT spokesperson this only proves that someone with a lot of influence is earning money from this.

The Brazilian CUT and the Norwegian LO

CUT is working closely together with their Norwegian counterpart LO, and has done so since they were created. Over the years, CUT is looking at Norwegian labor union regulations as a reference point, and they have frequent workshops on how to lobby for change. They also collaborate in international issues, and have the same visions for the union legislations. NOPEF is cooperating closely with the petroleum union in Rio de Janeiro.

1.4 Culture

Brazilian culture

The Brazilian culture is a wonderful blend of ethnicity, religion and exciting celebrations. The ethnic mix of culture, mainly with European, African and Asian has given Brazil a unique multicultural heritage. This melting pot started with the native Indians, and the arrival of the first Portuguese settlers during the16th century. To this day, Portuguese culture still influences Brazil. Brazilian culture represents a wide variety of religions, but the majority of Brazilians belong to the Roman Catholic Church.

Brazil is literally possessed by vitality. In their daily life, everything moves, vibrates and has a rhythm, and therefore Brazil boasts many celebrations and festivals. Music and dancing has always been a huge part of Brazilians' lives, and the popular Samba is Brazil's national musical style. No one can imagine Rio or its carnival without thinking of this dance.

The Brazilians are friendly, loud, open-minded, creative and proud of their country. Family and friendship are almost sacred, and they spend a lot of time on social gatherings. According to Norwegian expatriates we met, Brazilians tend to be very open towards foreigners. However, some might argue that the history of the country makes Brazilian people more insecure.

Niteroi Contemporary Arts Museum designed by Oscar Niemeyer.

Brazilians originate from very different geographical areas and cultures, with a population mixed by Indians, Europeans and Africans. Some believe that the insecurity related to not knowing exactly where you come from creates a fear of being inferior. As a defense mechanism, some people compensate this by a strong sense of national pride.

Brazil is a country of great contrasts. Many children do not have the opportunity to attend schools, while others pay high fees to send their children to prestigious private education facilities. Several managers we met with considered the schooling system and the lack of education to be a major challenge for the country. For industrial firms, getting skilled workers can often be difficult, but the Brazilians are eager to learn. "There are some cultural challenges, but Brazilians are very interested, skilled and willing to learn. The key problem is however that they often lack the necessary experience." (Halvard Idland, Aker Promar).

In Brazil, life is generally more relaxed than in the US. People often look at Europe as an ideal model, but they would never have wanted to switch lifestyles. The only problem with the Brazilian lifestyle is that people sometimes become too relaxed, meaning that they tend to show up late for meetings. However, as one Norwegian expatriate stated: "Brazilians are not always on schedule, but somehow they always manage to land with both feet on the ground."
Some suggest foreign business partners to be more patient. Because, as the Brazilians say: "In Brazil everything is difficult, but nothing is impossible."

Brazil is also known worldwide for modern buildings representing the best of 20th century's architectural style. Especially one person has contributed in giving the country this trademark; Oscar Niemeyer. His somehow futuristic buildings tend to be characterized by large, white surfaces and surrounded by curvy, soft lines. Niemeyer was responsible for designing the entire city of Brasilia from scratch. Brasilia was built in the center of the country during the 1960's, and represents something unlike any other capital throughout the world, with its thorough planning and stylistic appearance. Of more recent projects, the Niterói Contemporary Art Museum (se previous page for picture) just outside Rio de Janeiro might be the one most well-known. Many consider this to be his greatest work.

BNCC
Brazilian-Norwegian
Chamber of Commerce

The Brazilian-Norwegian Chamber of Commerce (BNCC) was established on November 15^{th}, 2002 as the first Brazilian Chamber of Commerce in the Nordic countries. BNCC is an independent, non-profit organisation where funding comes from membership fees and special events.

Objective
The objective is to promote the development of commercial relationships between Brazil and Norway. BNCC provides a network among professionals, companies or organisations working with Brazil and Brazilians working in Norway.

Activities
Events, workshops and meetings are organised in order to give the members updated information about the political, economical or sector business issues. The meetings are settings for an exchange of experience among the members, thus contributing to raising the general knowledge in Norway about the business environment in Brazil. A dedicated web-site is being developed to provide news and general information of interest to the Brazilian-Norwegian business community. BNCC has a close relationship with the Norwegian-Brazilian Chamber of Commerce in Rio de Janeiro.

Members
The Chamber has over 60 members, corporations and individuals. The membership includes some of the major Norwegian companies, like STATOIL, Norsk Hydro, Norske Skog, ELKEM, Aker-Kværner and Norwegian service companies operating in Brazil like District Offshore, Det Norske Veritas, Farstad Shipping, Solstad Offshore, Kongsberg, DNB and Nordea. Further, a number of members are individual professionals and smaller companies offering services to Brazil and Norway in the commercial and legal field.

If you want to become a member, please visit our site www.brazilchamber.no

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Safety

Certain safety precautions have to be complied in Brazil. Some general advices of “how to behave” can help you from getting into undesirable situations. Although you might think that Brazil is safe, it is important to be aware of certain issues. Brazilians may consider these as customs and take them for granted, while tourists and foreigners tend not to do so.

This is a general presentation of safety, so one should know that there are differences in safety precautions throughout the country. São Paulo and Rio are the most exposed cities with relatively high crime rates, mainly because of size and variety. Riots may occur in both cities, but rarely in the tourist areas. However, tourists and foreigners are more vulnerable to street thefts and robbers in central areas.

There are several recommendations regarding cash withdrawal and valuables:

- First of all, check your bank account regularly and keep your records in case of misunderstandings.
- Don’t let your credit card get out of sight, e.g. by leaving it to a waiter in restaurants.
- Keep credit cards of different brands since not all are accepted everywhere, and in case of robbery.
- Be careful with ATMs and check if someone is observing you.
- Don’t flash your money, camera, cellphone, jewelries or other valuables on the street.
- Don’t bring more money than you need when you leave your hotel/apartment. It is always convenient to have some small change in your pockets. A good advice is to use many pockets and spread the amounts of cash you’re bringing.
- If possible, take a taxi to the ATM. Never use the ATMs on the streets, go inside the bank.
- Use the safe at your hotel/apartment for valuables.
- Always bring a copy of your passport and phone numbers when you go out.
- It might be easy for locals to notice that you’re a foreigner, and it is recommended to dress casually. Also, avoid carrying valuables, especially any visible jewelry or expensive watches.

It is important to be careful with traffic. Even though there is a green light, make sure that the traffic stops before you cross, especially in the evenings. At night Brazilians usually don’t stop at red lights because they are afraid of robberies. São Paulo even has a law stating that you are not obliged to stop the vehicle at red lights by night. Brazil is facing problems with drunk driving during night time as well. In general, it’s not advised to drive in Brazil without knowledge of the traffic and language. The traffic can be perceived as somehow chaotic. E.g. motorcyclists tend to disturb car drivers, as they constantly sneak in and out of line. The way of driving in Brazil is often characterized as aggressive. In the evenings, always take a taxi and never walk, no matter the distance. If possible, avoid public transportation.

On the beach, bring the minimum of what you need. If something is stolen report it to the police, Rio has for instance a police station for tourists. Be aware that in some cases the police can be corrupt. The night-life in Brazil is quite diverse. It may be wise to confer with locals about which places not to go in the evening. Never leave your drink unattended in case of drugs being placed in it.

In general, avoid strange people, be careful and check out if someone is observing you. Try not to stay at the same place for a long time, and move if you become suspicious about people around you. The best safety advice is however to be aware and alert, but don’t be too scared.

Sao Paulo market, downtown area.

1.5 Framework for doing business in Brazil

The aim of this framework is to provide the reader with insights on key issues that should be taken into consideration when doing business in Brazil. The information presented is mostly based on meetings with Norwegian and Brazilian companies during our visit to Brazil in January 2007, as well as some external data. We believe that learning from the experience of other firms can be highly valuable, and thus provide something more than what can be found in books or on the Internet.

Based on the experience of a number of firms operating in Brazil, we will present important issues highlighted by representatives of Norwegian and Brazilian firms.

Business Culture

"You cannot underestimate the cultural aspects when internationalizing." (Jorge M.T. Camargo, Director of Statoil in Brazil)

Brazilian culture and business ethics can be compared to culture and ethics in Southern Europe, for instance Italy, Spain and Portugal. This is not surprising since immigrants from these countries have had a significant impact on Brazilian culture. Be prepared to commit long-term resources in terms of time and money, toward establishing strong relationships in Brazil. This is the key to business success.

"Brazilians are very grateful people and it is a pleasure to work with them." (Halvard Idland, Aker Promar) The organizational structure is very hierarchical in Brazil. They sometimes just do what they're told to do, nothing more and nothing less. This can be challenging, but due to the low level of education and experience this type of structure might often be necessary.

In order to do well in the Brazilian market it is crucial for Norwegian companies to understand how Brazilians think. Several of the people we met emphasized that the Brazilian way of thinking is completely different from that of other countries. Therefore you should not just transfer procedures used in other internationalizing situations, but as Halvard Idland in Aker Promar pointed out: "We need in-depth knowledge and in many ways to
behave as Brazilians in order to succeed in this market".

Some may find it difficult to adapt to the way Brazilians greet one another. Shake hands, often for a long time, for hello and goodbye; use good eye contact. When leaving a small group, be sure to shake hands with everyone present. When women meet, they exchange kisses by placing their cheeks together and kissing the air. Business cards are exchanged during introductions with everyone at a meeting. It is advisable, although not required, to have the other side of your business card translated into Portuguese. Giving a gift is not required at a first business meeting, buy lunch or dinner instead.

Expect questions about your company since Brazilians are more comfortable doing business with people and companies they know. During meetings, anyone who feels they have something to say will generally add their opinion, and you have to expect to be interrupted while speaking or making a presentation. Meetings and communication are generally rather informal, and do not rely on strict rules of protocol.

> *"You cannot underestimate the cultural aspects when internationalizing."*
>
> ***(Jorge M.T. Camargo, Director of Statoil in Brazil)***

Jorge Camargo, Statoil.

Norwegians and Brazilians

Norwegians and Norwegian companies are generally well appreciated in Brazil. Jorge Camargo, country manager of Statoil in Brazil, a Brazilian who also lived in Norway for a while, said that "Norwegians and Brazilians are complementary types and tend to work well together. Brazilians can learn from Norwegians and Norwegians have a lot to learn from the Brazilians. We are different, but we are not superior to one another."

We also got the impression that Brazilians think Norwegian companies in Brazil manage to combine corporate expertise with local knowledge. This was confirmed by a statement by a Norwegian represen-

> *Norwegians are different in a positive way.*
>
> ***(Jorge M.T. Camargo, Director of Statoil in Brazil)***

tative; "Norwegian companies understand the constraints of a global economy, and the importance of local presence."

We received some interesting comments on differences in working days as well, such as: "If you want to look ambitious you work very long hours. A lot of people work long hours just to show off. In Norway on the other hand, you actually want to show that you have a personal life outside the office as well." (Jorge Camargo, Statoil)

Another important element is linked to the fact that Brazilian firms are more hierarchical than Norwegian ones. As the president of a Norwegian company in Brazil pointed out; "Brazilians often do not take own decisions, they are not proactive but rather wait for instructions. Norwegians on the other hand take more independent action."

Communication

Ensuring good communication within the organization as well as with potential partners can be a major challenge in Brazil. The problem tends to be based upon the fact that people are used to hierarchical organizations. One problem is related to communication upward in the hierarchy. Brazilian workers might appear reluctant and scared of saying something wrong, thus limiting the communication flow. This was a problem that was mentioned by several company representatives, and one of them expressed it this way; "In Brazil, to do something and fail is worse than doing nothing at all."

There can be several explanations to this. One is perhaps that workers lack a sense of responsibility, yet another one is the lack of necessary knowledge. Others are simply just afraid of loosing their job if they make mistakes.

> *Brazilian workers tend to hide bad news until it is too late since they are used to a very authoritarian leadership style.*
>
> ***(Jorge M.T. Camargo, Statoil)***

Communication between the Brazilian subsidiary and the headquarters in Norway is also important for the success of the subsidiary. In Aker Kværner, representatives from the HQ come to Brazil every two or three months. According to the managers in Brazil, this has eased the communication between the two countries. By visiting the subsidiary company and experiencing what kind of problems the workers actually face in Brazil, the HQ representatives will get a close-up view of the conditions, and increased understandings about the problems that must be addressed in the Brazilian market. This is a valuable experience which might be hard to explain and understand just through basic phone calls. In the long run, mutual understandings between HQ and the subsidiary company increase as well, resulting in improved efficiency concerning complex decision-making processes.

When it comes to communication between firms, the key problems lie in the fact that we have different backgrounds and different ways of communicating. Norwegians have to learn to listen and not to expect results the first day. As a Norwegian expatriate stated: "As a Norwegian in Brazil: you have to listen to what they really are saying, not what you think they are saying." Norwegians tend to be very direct and for example saying "I have to go now" would not be normal and considered very impolite in Brazil.

Garganta el Diablo, Foz do Iguacu.

Meetings and negotiations

You don't start a meeting before the manager is present. Senior employees lead the word and you will not have comments from the other workers. A manager pointed out that "In Norway you involve everybody. In Brazil the boss is supposed to take the decisions and the decisions are not made in the big meetings." Tip: You need to know who makes the decisions. It is necessary to be more patient in Brazil and try to find out which buttons to press. – In this kind of situations Norwegians tend to be too quick.

Business people in Brazil tend to be quite risk averse, and this has a reason. Over the last years the Brazilian economy has been quite stable. But the Brazilians have not yet become used to this stability after a history of great inflation and economic insecurity. Consequently, entering risky projects or long-term processes can be quite difficult.

As we mentioned earlier it seems like Norwegians and Brazilians make a good match in business relations. According to a Brazilian manager, "Norwegians have an egalitarian mindset and do not see themselves as superior. This makes collaborations with Brazilians better." We return to the issue of mutual respect and the Norwegian "flat structure" of organizations.

As previously discussed, the organizational structure in Brazil is quite hierarchical; the people you negotiate with will often not have any real decision-making authority. Compared to Norway, the pace of negotiations is slower, and is based much more on personal contact. Norwegian negotiators are known to go quickly to the target, while Brazilian negotiating is more like "finding out". Pleas bear in mind some of the following advices:

> *"Punctuality in Brazil is when two Brazilians have the same delay." (Alfonso Kiehl Noronha, Vice president of external Relations at Norske Skog)*
>
> *"Brazilians can have loud discussions around the table. This is normal in Brazil. You just have to understand that."*
>
> ***(Norwegian expatriate in Brazil)***

- Don't rush or appear impatient. Expect a great deal of time to be spent reviewing details.
- During negotiations, remember that nods and smiles not always signify agreement or even understanding. This has been the cause of several misunderstandings.
- Ask for the counterpart's opinion, and if possible, say numbers in both languages. Confirm in writing what was said as soon as possible after the meeting or conversation.
- It is best to meet face to face. Important business deals are rarely concluded by telephone or email/letter.
- Use local lawyers and accountants for negotiations, Brazilians might resent an outside legal presence.
- Do not change your negotiating team, or you may have to start all over from the beginning.
- Remember, Brazilians negotiate with people, not companies!

Networks

Several Norwegian firms in Brazil have passed the export phase and realized the need to start their own production in Brazil. Creating a network is crucial for success in the Brazilian market. A key factor of success in Brazil is, according to several managers, to combine corporate and local knowledge through extensive use of networks.

Brazilians often mix work with friendships. They like to meet new people and their businesses and personal networks often interwine. Getting to know business partners on a personal level can thus be vital for success in Brazil.

> *"Get a local partner. Not just for networking, rather a partner that can add value over time."*
>
> ***(Jorge M.T. Camargo, Statoil)***

Bribes and corruption

The United Nation's Global Program Against Corruption (UNAC) defines corruption as the "abuse of power for private gain". Bribery is one of the most common and troubling problems faced by international managers. Norwegian businesses will most likely meet this dilemma when trying to do business in Brazil. According to the Norwegian Embassy, 32% of Brazilian value creation disappears due to corruption

> *“You can develop your business without being involved in corruption. The problem is if you think that you need to be involved in corruption in order to make money.”*
>
> ***(Alfonso Kiehl Noronha, Vice president of external Relations at Norske Skog)***

and inefficiency. It is difficult to know, whether this rate is growing because of increased corruption, or if it is the rate of discovered cases that is increasing.

In 2006, the law-firm Simmons & Simmons made a survey of international business attitudes to corruption. They conducted a total of 350 telephone interviews with companies in Brazil, France, Germany, Hong Kong, the Netherlands, the UK and the US. 38% of Brazilian respondents believed that they failed to win new business due to bribery. However, 70% of Brazilian respondents admitted in being “totally ignorant” of their country’s legislation governing bribes paid abroad, with a further 14% having only a “vague awareness”. Only 12% of the companies had reviewed integrity business practices and procedures in the last three years in the light of increased international focus on corruption.

Most respondents believed that it is common practice to try to circumvent anti-corruption legislation via intermediaries, e.g. by turning a blind eye when commercial agents pay bribes on behalf of their clients. A Brazilian interviewee in the survey said that “Using intermediaries is a main way to get around the rules, and a very effective way to wash your hands”. International business people have often argued that they are not responsible if this happens without their direct knowledge or involvement, but this does not stand up to legal scrutiny. Bribery laws apply to bribes paid both “directly and indirectly”, and many corruption cases prosecuted involve payments made through intermediaries. Brazilian respondents were pessimistic about the effect of anti corruption laws; 38% believed that corruption will increase within the next 5 years. Many companies have tightened their anti- corruption policies, and 18 % of Brazilian companies have programs to train executives in ways of avoiding

> *Corruption is much more an option than an obligation.*
>
> **(*Jorge M.T. Camargo, Statoil*)**

corruption. Transparency is the main weapon against corruption. When dealing with corruption problems, companies need to back up anti bribery codes with effective compliance procedures, such as awareness-raising programs, and checking of the integrity record of commercial agents.

If good companies avoid investments because of concerns about corruption, host countries lose out. When companies from emerging economies enter the international market, they find it harder to win the trust of partner companies. One Brazilian company put it this way: “An increasing risk to our business is that every time we try to meet and work with a partner they think we are criminals. We are a high-quality business, but still very poor images exist”.

Corporate Social Responsibility (CSR)

> *The CSR reputation is very important and has to be maintained.*
>
> **(*Jorge M.T. Camargo, Statoil*)**

Brazilians are increasingly focusing on environmental issues and the environmental laws are now quite strict. All the large firms are also enclosing separate reports on Corporate Social Responsibility in their annual reports. The awareness of environmental and social issues has increased radically in importance over the past years. Several NGOs are also fighting for the rights of the people and the country in general, and put pressure on firms that do not meet the given requirements.

Labor force

Brazil has a working population of approximately 95 million. However, getting skilled labor can often prove difficult due to relatively low levels of education and little manual training. As several company representatives pointed out during our meetings in Brazil, the access to skilled labor is fairly limited. Particularly workers possessing technical skills such as plumbers and electricians are difficult to get hold of.

The minimum wages in Brazil are quite low, about BRL 330 or NOK 1000 per month. Employment costs add up to about 52% of the employee’s salary. Labor unions are quite powerful in Brazil. As you can see from the case “Managing your union leaders well, the case of Norske Skog in Brazil” (Part 2 of the report), actively handling the relationship between the management and union leaders will lead to a more stable working environment.

In the long run it is expensive to send workers from Norway. Some suggest that Norwegian companies which establish branches in Brazil should consider it

> *In the long run it is too expensive to send workers from Norway*
>
> **(*Tom Mario Ringseth, DnB NOR, Rio*)**

to be just as attractive to hire well educated Brazilians, especially those who have studied abroad. It is also common to hire "estagiarios", students that work part time in companies.

Taxes

Income taxes are only payable for people earning more than BRL 14000 per year. Since the average salary is lower than this limit few Brazilians actually pay income taxes. There are two levels of these personal taxes, namely 15% and 27.5% depending on the level of salaries.

A number of representatives we met with characterized the Brazilian corporate tax system as very complex. In addition, the level of taxes is relatively high. One of the managers we met stated that the corporate taxes in Brazil were comparable to the personal taxes in Norway. Actually, every state (26 states and one federal district) in Brazil has its own tax system. As a foreign international company in Brazil, one is subjected to more than 40 taxes. This implies the difficulties of being well-informed on the matter of subject at any time. Several of the representatives of Norwegian firms we met with named the complexity of the fiscal system as one of the main challenges in the Brazilian market.

> *"Brazil has to go through an extensive tax reform."*
>
> ***(Norske Skog)***

Foreign Direct Investments

The Brazilian government is actively trying to increase the attractiveness of foreign investments in Brazil. Over the past ten years this seems to have worked. Foreign investments increased at a steady pace until 2000, but then investments decreased until 2003. Today the investment attitudes in Brazil tend to be on the rise again after a slight decrease the last couple of years. The central bank has announced that the expected foreign investments will increase throughout 2007.

FDI By Year in Brazil

Year	FDI Projects	Cap. Investments US$
2006	143	$6.11 Bn
2005	169	$11.37 Bn
2004	259	$18.89 Bn
2003	290	$16.77 Bn

Source: www.locomonitor.com

Government initiatives include BNDS; the National Bank for Economic and Social Development and FINAME, which is the Special Agency for Industrial Financing. Through our meetings it became clear that especially the funding from BNDS has been very important for Norwegian firms in Brazil. The president of Norskan pointed out that financing through the BNDS has been a great advantage, with only a 3-4% interest rate over 20 years.

PwC suggest the following investment opportunities in Brazil: 1) Tapping the considerable local market potential. There are still many unsatisfied customers. 2) Taking advantage of the abundant raw materials and natural resources. 3) Using the sizable and growing labor force. 4) Producing locally items that are currently imported

Visiting at Statoil HQ, Rio De Janeiro.

1.6 Economy

Brief introduction

As of 2006, Brazil has the ninth-largest economy in the world considering purchasing power parity. They have a diversified middle income economy with wide variations in levels of development. Possessing large and well-developed agricultural, mining, manufacturing, and service sectors, Brazil's economy outweighs that of all other latin american countries and is expanding its presence in world markets. However, despite growth and structural change, this has not altered Brazil's extremely unequal distribution of wealth, income and opportunities significantly. Despite improvements in economic growth and output, the number of poor has risen sharply. Most of the poor are concentrated in the rural areas of Brazil's Northeast Region, or in the country's large cities or metropolitan areas. The economic and political troubles of the 1980s and early 1990s have only complicated the task of correcting the country's development pattern.

Brazil has been characterized as the "country of the future", as the country has always had the potential to become an economic superpower, but has yet to achieve this status. This is summed up in the quote "Brazil is the country of the future – and always will be." Especially during the boom years of the 60s and 70s, many people saw that Brazil was taking its rightful place among the world's largest economies. Weak growth since the 1980's has largely derailed this possibility in the near future. Brazil is part of the BRIC countries, which includes Brazil, Russia, India and China. A Goldman-Sachs paper proposed that this group of countries would experience rapid economic growth and by 2050 eclipse the current major economies.

We will present a short summary of important historical events in the Brazilian economy, followed by today's situation and future forecast.

View of Rio De Janeiro from Christ the Redeemer.

The Real Plan

Brazilian economists call the 1980s the "Lost Decade". Wild boom-and-bust cycles weakened the country's economy. Inflation ran at more than 100% for most of the decade, and occasionally exceeded 10.000%. Until 1994, the only certainty in the economy was uncertainty. On July 1, 1994, Brazil implemented the last, and to date, most successful of its economic stabilization programs to end inflation. The Real Plan was introduced by the Minister of Finance, Fernando Henrique Cardoso (later President), and presented the government's solutions to the problem of an unstable currency, high inflation and a public system that was out of date. A stable new currency was introduced, the Real. The Real, backed by healthy international reserves, began life on a one-for-one parity with the US dollar. The new currency would float within a prefixed band set by the Central Bank, i.e. parity with the USD. The plan put into place was to reduce inflation without freezing wages or prices. Inflation dropped from 45 to 50 percent per month in early 1994 to a rate of about 1 to 2 percent per month over the next two years, giving Brazilians their lowest inflation rates in decades. The rate of inflation reached 2.5% in 1998, its lowest level in half a century.

The plan featured privatization of state-owned industries, lowering of tariffs, and the abolition of Brazil's unique and counterproductive wage-inflation indexing, which had sent prices on a seemingly endless upward spiral. Foreign investments, encouraged by privatizations, reached record levels. Combined with more open trade, the new strong currency forced Brazilian businesses to become more cost effective and invest in new technology. The strong currency combined with low inflation increased the purchasing power of millions of Brazilians. People had more money to spend and consumption boomed. By the end of 1996, the Real Plan appeared to have succeeded in its objective of ending decades of inflation and macroeconomic uncertainty. It had also bought time for the government to attack the underlying fiscal imbalance that generated the inflationary pressures.

However, by the end of 1997 Brazil faced a large pub-

lic sector deficit, as a result of an overvalued currency combined with loose fiscal policy. Influenced by the Asian money market crisis, capital fled Brazil in anticipation of devaluation. Great reductions in foreign currency reserves combined with a strong increase in the price of the USD forced President Cardoso to initiate so-called controlled devaluation. On 15 January 1999, the Cardoso government announced that the real would no longer be pegged to the US dollar, ending the Real Plan. The government chose to let the Real float and follow the advice from International Monetary Fund (IMF) – raise interest rates and practice a restrictive fiscal policy.

The Real Plan is certainly one of the most successful stabilization plans on record. It reduced Brazilian inflation from hyperinflation levels, i.e. rates superior to 50% monthly rates, to less than 20% per year within a very short period of time and with minor dislocations if at all.
The Real Plan showed that Brazil's economy has great potential. All the ingredients for progress are here: a large labour force, the means of production, transport systems and markets for the products. The question is whether or not they can be coordinated efficiently.

Mercosul

Mercosul (Mercosur in Spanish) is South America's leading trading bloc. Known as the Common Market of the South, it aims for free movement of goods, capital, services and people among its member states. Mercosul was set up in March 1991 by Argentina, Brazil, Paraguay and Uruguay unde r the Treaty of Asuncion. The 1994 Treaty of Ouro Preto gave the body a wider international status and formalised a customs union.

Brazil and Argentina are Mercosul's economic giants. Bolivia, Chile, Colombia, Ecuador and Peru are associate members; they can join free-trade agreements but remain outside the bloc's customs union. Mercosuls tariff policies regulate imports and exports and the bloc can arbitrate in trade disputes among its members. In the longer term, Mercosul aims at creating a continent-wide free-trade area. Negotiations on a planned, US-backed Free Trade Area of the Americas are similarly mired, with some Mercosul leaders rejecting US free-market policies. The creation of a Mercosul development bank and a parliament has been disputed.

Facts about Mercosul:
- Full members: Argentina, Brazil, Paraguay, Uruguay, Venezuela
- Associate members: Bolivia, Chile, Colombia, Ecuador, Peru
- Headquarters (secretariat): Montevideo, Uruguay
- Official languages: Spanish, Portuguese
- Combined GDP: US$ 1.1 trillion

Mercosul is a powerful negotiator in business. If a company succeed in establishing a business in one of these countries, it will have access to one of the world's largest markets. It has been compared to the European Union, but with an area of 12 million sq km, it is four times as big. The bloc's combined market encompasses more than 250 million people and accounts for more than three-quarters of the economic activity on the continent.

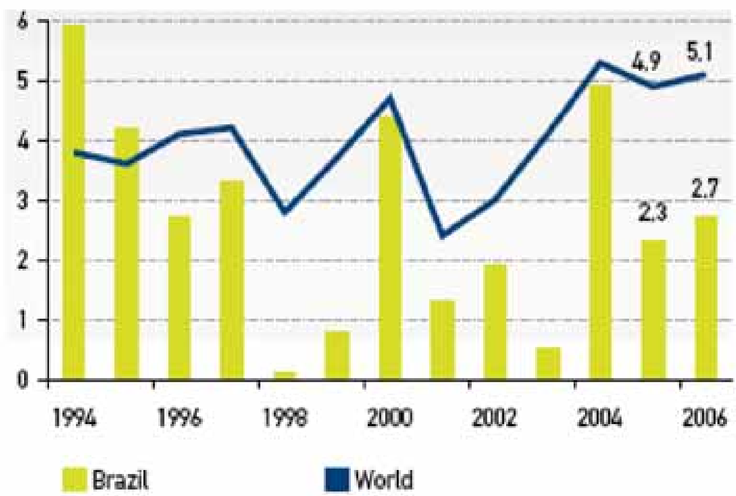
Mercosul is currently one of the world's most attractive arenas for investment. There are several explanations to this success: Mercosul is the fourth largest economy and has the largest reserve of natural resources in the world. Its energy reserves, especially mineral and hydroelectric, are of great importance. Its advanced communications network goes through a continuous renovation process. More than two million kilometres of roads connect the major cities and flight traffic is conducted through more than six thousand airports. The future perspectives in the communications sector are extremely promising: Following the privatization of several major companies, a much greater market can be exploited.

Current economic situation

In 2006, Brazilian GDP is expected to grow by 2.7%, which is lower than the more positive expectations in the beginning of the year. This is only 0.5 per cents

Brazilian and world GDPs

ANNUAL VARIATION (%)



above the average over the past ten years as well. The International Monetary Fund estimates a growth of 5.1% in the world GDP this year. For eleven years in a row, Brazil has been growing less than the world average. In 2006, as in 2005, the world GDP grew at double the pace of the Brazilian GDP.

The fact that Brazil grew little in 2006 despite lower basic interest rates shows that there are other elements preventing the country from embarking on a high-growth path. The investment rates constitute 20% of GDP, but are insufficient to foster sustained GDP growth beyond 3.5% a year. There are also other problems putting constraints on growth in the short run. Appreciated exchange rates restrict investment opportunities for the external market. But the biggest obstacle to fast growth is a strong and continuous increase in current public spending. In 2006, public spending increased twice as much as GDP, without any increase in public investments which are the key to ensuring higher investment rates. This higher current spending leads to a higher taxation, which reduces the investing capacity of the private sector and the economy's productivity.

Turning Brazil into a high-growth economy is a major challenge. A more robust and sustained growth will only materialize if there is a substantial increase in investment rates. Not only because investments constitute a means for incorporating new technologies, but also because they increase productive capacity directly. To increase investments, actions are required in two directions: actions to induce private corporations to engage in new business lines and actions to increase the investing capacity, that is, to expand savings, which is the non-consumed portion of the income which is available for investments (savings). It is necessary to improve the environment for private investments, and restrain any further increase in public spending. This is the only way to increase the potential GDP growth rate, a key condition to ensure lasting growth. For public savings to increase, deep fiscal adjustments must be made which imply a reduction in public spending as a percentage of GDP. They require an effective fiscal plan, including constitutional reforms and structural changes. The efficiency of the State must be improved, with a reduction in current spending and a lower tax load, and private investments must be stimulated. This is the only way to create favorable conditions for increasing investment rates and the global productivity of the economy.

The economic activity in 2006 was led by an expanded consumption, which is basically associated with greater credit availability and a higher real household income. With inflation rates below the target, interest rates could be reduced, with an impact on the demand for credit. The higher consumption, however, had a low impact on the manufacturing production. The expanded consumption was mainly met by imported products, which are cheaper at the time being as a result of the appreciation of the Real. Domestic products were replaced by imported products, which is true both for consumption goods and intermediate goods. The appreciated exchange rate, however, did not reduce the trade balance in 2006. The high growth in the foreign demand for Brazilian commodities ensured a sufficient trade balance to generate a current account surplus and an inflow of foreign currency.

Economic activity

The estimated GDP growth in 2006 was reviewed downward to 2.7% from 3.7% earlier in 2006. This year was marked by a unique growth pattern, almost exclusively based on household consumption and with a negative contribution from the foreign sector. Household consumption grew by 3.7% during this period, totaling a contribution of 2.0 percentage points to GDP growth. This is an unusual occurrence. There is no record of another period this decade in which household consumption has grown at a significantly higher pace than GDP. I 2006, consumption grew, but the domestic production did not respond to this higher consumption, at least not with the same intensity. As a result of an increasing demand for consumption goods, there was a strong penetration of imported products. Enhanced imports are also a result of the appreciation of the Real, which has stimulated the replacement of domestic products with imported products. As a result of the appreciation of the Real, products manufactured abroad have become more competitive. Between 2001 and 2005, the foreign sector contributed, in average, 1.5 percentage points to GDP growth each year. In 2006, the situation was inverted. The foreign sector has been contributing to reduce GDP

Contribution of components in GDP formation (expenditure approach)

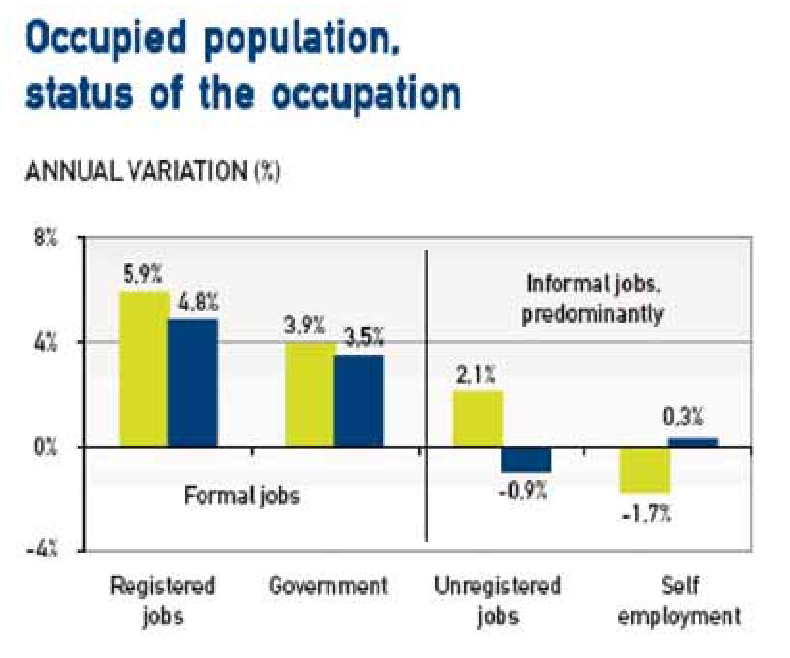
IN PERCENTAGE POINTS

Expenditure components	2001/2005 average	2005	2006 (Up to 3rd quarter)
Consumption	0.9	2.0	2.4
Household consumption	0.7	1.7	2.0
Government consumption	0.2	0.3	0.4
Investiment	-0.1	-0.6	1.2
Gross form. of fixed capital	0.1	0.3	1.2
Change in stocks	-0.3	-0.9	0.0
External Sector	1.5	0.8	-1.1
Exports	1.7	2.1	0.9
Imports	-0.3	-1.3	-2.0
GDP	2.2	2.3	2.5

by 1.1 percentage points. Investments in machinery and equipment increased less than expected this year, despite the availability of lower interest rates and the higher household consumption. In 2006, only 36% of the companies made their investments as planned. The manufacturing production accounted for almost half of the industrial output growth. On the other hand, the production of timber products, clothing and shoes actually dropped in 2006.

Jobs and wages

The number of formally registered employees increased by 4.8% in 2006. Job formalization has become a trend during the past two years. While the number of formally registered workers, formal workers in the labor market and statutory civil servants, grew 11% in the 2005-2006 period, the number of informal workers, workers without a formal registration and self-employed individuals, remained virtually stable during that period.



In regional terms, clear differences can be observed in the behavior of jobs. Less jobs are found in the south region and more jobs exist in the north, mid-west and southeast regions. The unemployment rate increased in 2006, despite the greater availability of jobs. 9.8% of the economically active population did not have a job. This higher unemployment rate is associated with changes in the growth pace of the labor force. As a rule, there are three factors that stimulate growth in the labor force. The first factor is lower household income, because it leads secondary members of the family to look for a job as a means to compliment the household income. The second factor is the perception of workers that the labor market is more favorable and, as a result, their higher chances of being successful in their search of a job. This behavior is typically observed when the economic activity is picking-up. Higher real wages constitute the third factor, which stimulates growth in the labor force. When salaries rise, the opportunity cost of staying out of the labor market increases.

Outlook

The economy is expected to perform better than in 2006, but without any guarantee that it will embark on a high-growth path. In 2007, the GDP is expected to grow by 3.4%, which is inside the expansion range of the economy's potential output in recent years. This moderate growth pace is explained by the fact that no action has been done to remove the obstacles that have been hindering Brazil's economic growth in recent decades. Without structural changes designed to enhance the growth rate of the country's potential output, which include higher investment and productivity growth rates, a significantly higher growth in the short run is unlikely. It is expected that the interest rates will continue to decrease, although at a slower pace than in 2006.

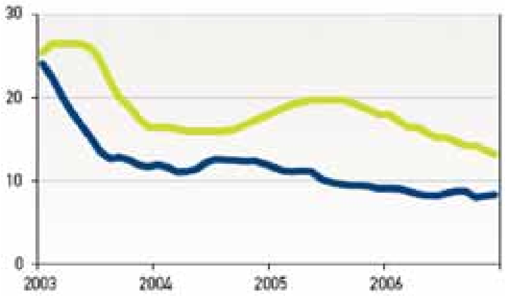
Most likely, the economic policy will not be managed in any sharply different way compared to 2006. No substantial changes are expected in the fiscal policy either. The poor quality of the fiscal adjustment will continue to hinder economic growth.

Because of an increase in imports that is higher than the increase in exports, the contribution of the foreign sector to economic growth will once again be negative, probably by 1.2 percentage points in 2007. The annual inflation rate, measured to 4%, will increase by about one percentage point in relation to 2006. However, the annual inflation will remain below the center of the inflation target zone. The market appreciation of the Real in 2006, a result of current account surplus and comfortable liquidity worldwide, will continue, but not as strongly as in 2006. The exchange rate will therefore remain relatively stable. The unfavorable exchange rate, from Brazil's point of view, will constitute the main difficulty for exporters because of poor competitiveness. On the other hand, a strong world demand will ensure good prices and a market for commodities. The trade balance is expected to be only slightly lower than in 2006.

Inflation and Interest rates

By 2006, Brazil have closed the third year in a row with the inflation within the range of target. The projections are fairly good of doing the same during 2007 as well. The reason for this tight progression lays in the movements of the Selic interest rate, which has been subject to cautious reductions.

BASIC INTEREST RATES (% A YEAR) AND MEDIAN OF TWELVE-MONTH INFLATION EXPECTATIONS (%):



Drop in the Selic rate is much slower than in 2003.

Source: Central Bank of Brazil (BCB).

As can be seen by the figure, the Selic interest rate was 18% in early 2006. Throughout the year it was reduced several times, reaching 13.25% at the end of the year. During the same period of time, long-term interest rates were reduced from 9% a year to 6.85%. At the same time, credits are rising. The participation of industry in the total balance of credit operations decreased somehow during 2006, from 22.9% to 22%. At the same time, the volume of individual borrowers grows at a faster pace than for corporations.

The monetary policy was a result of two favourable factors. The first one being a null variation in the Consumer Price Index in the second quarter of 2006, the second one that the expected Consumer Price Index had a downward trend and was below the central point of the target (4.5%).

The current situation of Brazilian economy sees inflation under control, decreasing interest rates and a good international liquidity. This favourable combination of factors is expected to continue throughout 2007, and thus make the capital market grow further. There are projections for a continued conservative management of the monetary policy, in order to further improve economic stability. The Selic interest rate is expected to decrease from 13.25% to 11.5% by the end of 2007. This expected to result in an inflation rate of 4% in 2007.

Evolution of total primary expenditures of the Federal Government

TWELVE-MONTH AGGREGATES (% OF GDP)

Source: STN - National Treasury Secretariat/MF - Ministry of Finance

Fiscal policy

Throughout 2006, the fiscal policy has been characterised by increases in current spending financed by higher taxes. This is similar to the trend of the last couple of years. Total spending of the government was close to 19.6% of GDP in 2006, against 18.2% in 2005. The government's net revenues have increased sharply as well, from 20.9% of GDP in 2005 to 22.1% in 2006. The net revenues have been increasing at a steady pace from approximately 15% in 1997 until the results visible today.

The achievement of fiscal targets has contributed in preserving a stable economic environment and promoting growth, but some argue that the fiscal adjustments should be improved in such a way that they will enhance the GDP growth pace. It is suggested that the government should reduce its current public spending in relation to GDP, consequently reducing the tax load and giving way for more public and private investments. However, the chances of this to take place are small.

For 2007, the government's net revenues are projected to be approximately the same as in 2006. Government spending will grow slightly to 20% of GDP.

Trade and Exchange rate

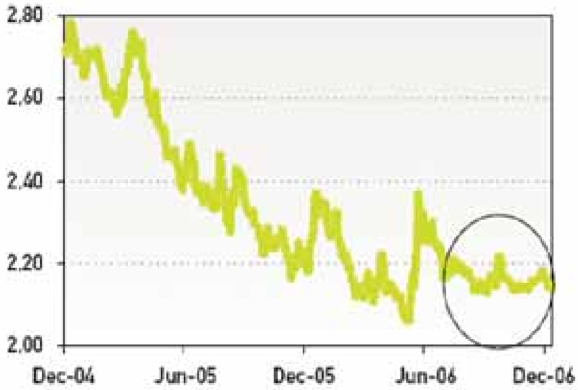
The average exchange rate was R$ 2.179/US$ 1 from January till November 2006. The exchange rate has been on a downward turn through most parts of the last two years, although fairly stable during the past four months of 2006.

This trend has resulted in an increase in Brazil's international reserves US$ 53.8 billion to US$ 78.2 billion, as the country has been buying dollars in large volumes. The Real is expected to appreciate even more in relation to US$, but throughout 2007 it will be subject to a slight devaluation, ending the year at R$ 2.25/US$ 1

Despite the appreciation of the Real, Brazilian export has continued growing strongly. This is explained by the prices of sales abroad, which increased by 12.4% throughout end 2005 and 2006. However, total

Exchange rate R$/US$

AVERAGE DAILY QUOTES



Source: Central Bank

exported quantum has been growing at a much lower pace compared to recent years. In addition, there are some signs for slight worry concerning Brazilian exports. One of the most important ones is that sectors which suffer a decreasing profitability account for 59% of the total exported value. The quantum exported to important markets such as the US, EU and Mexico, has recently decreased as well. The lower growth rate of export quantum is expected to continue in 2007. Economic growth in the world is however expected to preserve price gains, which will contribute in securing positive results in Brazilian sales abroad. Exports in 2007 are expected to account for US$ 150 billion, an increase of 8%.

The Brazilian imports grew at a high pace in 2006. This is mostly due to the increase in imported volumes, made profitable because of a strong Real compared to US$, resulting in a good purchasing power. In addition, domestic Brazilian consumption is higher. The trend of increased Brazilian imports is expected to remain throughout 2007, and actually increase by as much as 15%, leading to a total import value of US$ 107 billion.

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Part 2

Oil and gas
Shipping
Forestry
Agriculture
Biofuels
Telecommunications
Sefood and aquaculture

2.1 Oil and Gas

General overview

Brazil is on its way to become one of the main international poles for the exploration and production of petroleum, the World Petroleum Council projected in April 2002. They have the second largest oil reserves in South America with 11.2 billion barrels of proven oil reserves, and are still in the process of exploring the large sedimentary basins.

Brazil opened up to foreign investments within the sector in 1999. The first oil companies that came to Brazil came with too high expectations and without really understanding the Brazilian system which was then in its infancy, and lost money. Since then, several companies have established themselves in the country, all with substantial long-term strategies. And most projections are now positive.

Facts 2006:

Average crude oil production:	1.72 million bpd
Average oil production:	2.1 million bpd
Refining capacity:	1.9 million bpd
Proven Oil Reserves:	11.24 billion barrels
Proven Natural Gas Reserves:	10.82 trillion cubic feet

(SEC Criteria, Oil & Gas Journal, 2005)

Brazil is experiencing rapidly expanding oil and natural gas markets, and is producing more and more oil. In 2006, Brazil reached a total oil production of 2.1 million barrels per day, compared to Norway's 3.0 million barrels per day. Of this, 82% is crude oil. Brazil is self sufficient in oil, a goal achieved by April 2006. Brazilian production had increased by 10% in the first half of 2006 compared to the same period the year before.

The country has a very interesting, although challenging, climate for further investments within the oil and gas sector. Brazil offers a well-established infrastructure, a large potential for increasing energy demand within the country itself, a well-developed R&D environment for deep- and ultra deepwater technology, and a continuing deregulation and focus on attracting foreign companies. At the same time, the industry is troubled by very high taxes and interest rates and a bureaucratic government administration, though this sector is said to be better than most of the rest of Brazilian bureaucracy.

Petrobras rig.

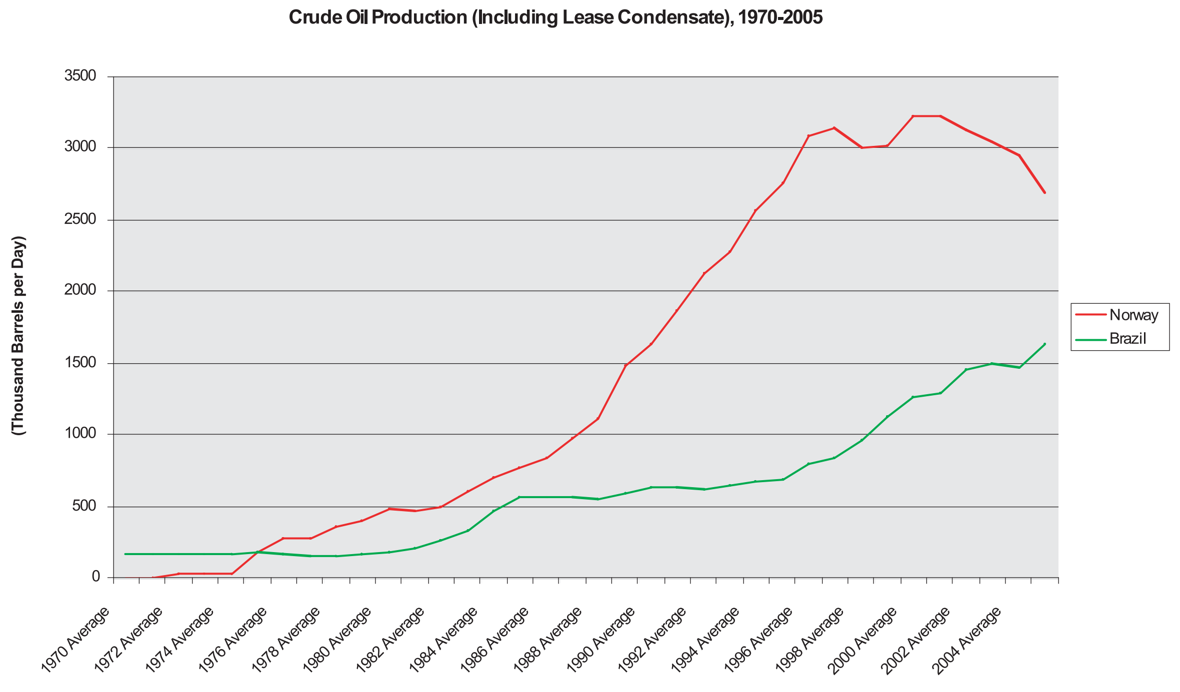

Fig. OG1 Source: Energy Information Administration

Until now, all but one project in Brazil is operated by Petrobras. This one project is operated by Shell. Hydro will most likely start production in 2010 as an operator, and will then be the first Norwegian company working as an operator in Brazil.

Natural Gas

The main focus in Brazil has for a long time been towards oil, with only occasional production of small gas fields. It is currently ranked as number four in Latin America in terms of volume of natural gas reserves. However, their potential reserves are very large, with one estimate of the total undiscovered gas resources placed at 175 trillion cubic feet according to the carbon sequestration leadership forum.

The greatest potential for large-scale extraction of natural gas is in the Santos, Campos and in the Espirito Santo basins, according to Petrobras. During 2006 some large gas fields have started production. The Mexilhao field and other gas fields in the Santos basin offer opportunities for large-scale production, but most other gas accumulations are on a moderate scale. This includes gas caps associated with maturing fields in the Campos basin.

The gas market in Brazil is increasing. Today, the consumption of natural gas represents around 8% of the total energy consumed, where hydro energy is the largest source of energy. There is an ongoing work to promote increased use of gas in the industrial, commercial and vehicular sectors, and also to give continuity to thermoelectric generators as a complementary source of electric supply. Today the thermoelectric power plants are the largest consumers of natural gas. However, this energy source varies to a great extent with the seasons.

The residential use of natural gas is assumed to grow, but will probably remain marginal. This is partly caused by lack of infrastructure, but mainly because of the temperature in the country.

It is projected that consumption of natural gas will reach 1 trillion cubic feet in 2010 (see fig. OG3, page 39). Of this, Petrobras hopes to be able to produce about 58%, importing 17% by LNG and 25% through pipelines from Bolivia.

Concerning the infrastructure for natural gas, all major Brazilian cities as well as Bolivia, Argentina, Chile and Uruguay are linked together by an extensive network of pipelines. Petrobras alone owns 19 001 km of gas


DOF ASA is a group of companies which owns and operates a modern fleet of offshore service vessels which provide services to the subsea and construction market. DOF was founded in 1981 and was listed on the Oslo Stock Exchange in 1997. The total number of crew engaged by the group of companies is approx 1500 and we will engage further about 600 persons before end year 2009.
DOF has one of the most modern fleets in the market. As of February 2007 the company fleet (including newbuildings) consisted of 22 PSV, 9 AHTS and 25 CSVs. DOF is an international business and has offices in Norway, Aberdeen, Houston, St. Johns, Rio de Janeiro, Buenos Aires, Cairo, Singapore and Perth.
The company's business concept is to engage in long-term, industry-oriented offshore activity. The company's strategy is to engage most of the fleet on long-term contracts, thereby limiting the company's exposure to short-term market fluctuations.
DOF ASA
Alfabygget
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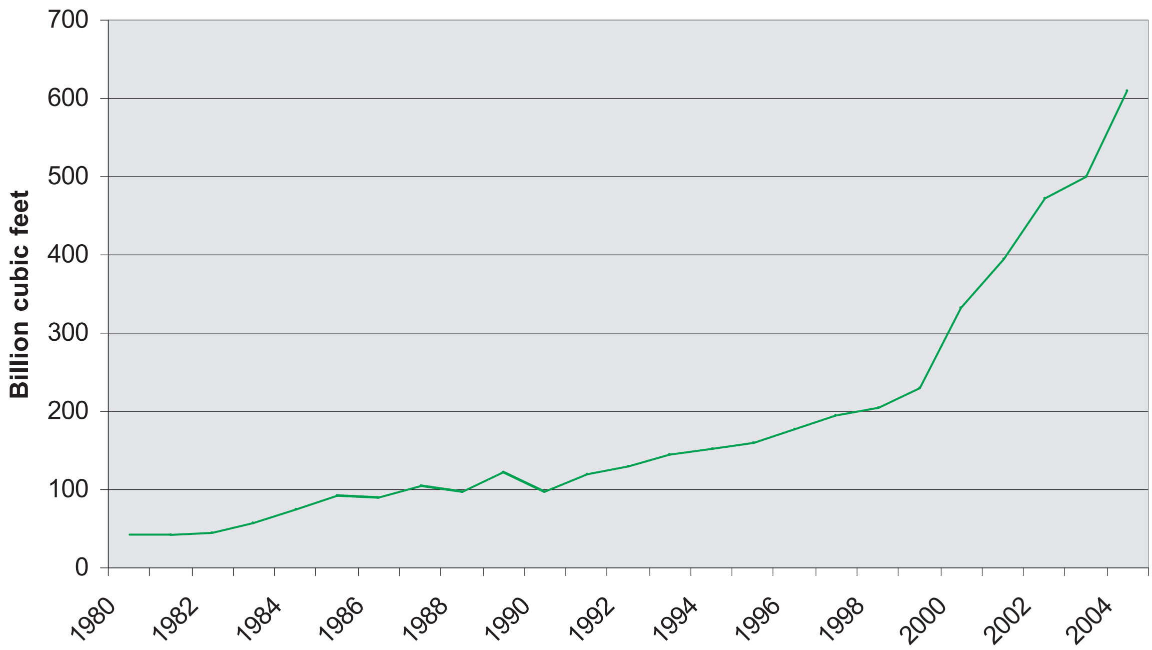
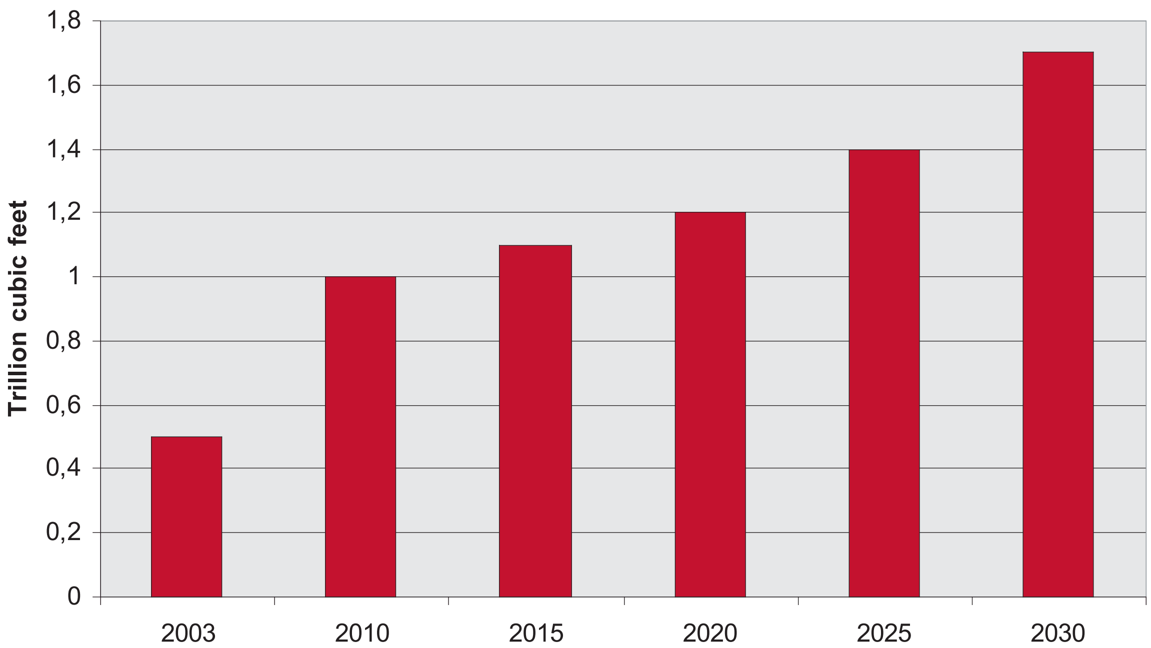
www.dof.no

Natural gas consumption, 1980-2004



Fig; OG2 Source: Energy Information Administration

Projected natural gas consumption, 2003-2030



Fig; OG3 Source: Energy Information Administration

pipelines. In addition, Petrobras has decided to build two LNG regasification terminals in Brazil, one in the northeast and one in the southeast of the country.

When it comes to recovery of natural gas, Petrobras operates with 60%-70% recovery from the gas fields.

Forecast and opportunities

"In the 1970 and the 1980, it was the North Sea. In the 1990 until now, it has been the Gulf of Mexico. I think Brazil will take over the hegemony as one of the most important offshore oil provinces in the coming years." This was stated by Kjetil Solbrække (Norsk Hydro) in an interview with E24 on January 2007. The oil and gas sector is probably the most promising of the opportunities in Brazil, especially for Norwegian companies. There will be a continuing growth in the offshore sector, particularly within deepwater areas where Norwegian companies possess unique experience and expertise.

The Brazilian National Petroleum Agency, ANP, expects that total investments on the Brazilian shelf will reach US$ 90 billion by 2011, but the numbers are probably larger. The four international companies Shell, Devon, Chevron and Norsk Hydro will make up for about US$

Estimated oil production 2006-2030, Million Barrels per Day

	Reference scenario	High oil price scenario	Low oil price scenario
1990	0,8	0,8	0,8
2003	1,7	1,7	1,7
2010	2,4	2,4	2,5
2015	2,8	2,9	2,9
2020	3,2	3,1	3,5
2025	3,5	3,2	4
2030	3,9	3,2	4,4

Table: TOG1 Source: Energy Information Administration

23 billion, while other international companies are expected to invest between two and five billion US$, according to the Oil and Gas Journal. Petrobras has announced that they will invest around US$ 75 billion in Brazil in the years to 2011. Of these, US$ 22.1 billion are earmarked for exploration in Brazil, US$ 4.4 billion will be used on new pipelines, and US$ 380 million will be used on maintenance contracts.

Market spending will be dominated by operational expenditures, as maintenance, modification and operation of production assets are the main drivers of a growth expected to reach US$ 11.1 billion by 2010. Drilling as a whole is expected to decline, but deepwa-

Recent and Planned New Crude Oil Projects in Brazil, 2007 - 2010

Name	Operator	Scheduled Start Date	Peak Production
Jubarte Phase 1, P-34	Petrobras	September 2007	60,000 bpd
Polvo	Devon Energy	July 2007	50,000 bpd
Roncador, P-52	Petrobras	4Q2007	180,000 bpd
Roncador, P-54	Petrobras	4Q2007	180,000 bpd
Espadarte, RJS-409	Petrobras	4Q2007	100,000 bpd
Golfinho Mod II, Cid. De Vitoria	Petrobras	3Q2008	100,000 bpd
Marlim Sul Mod 2, P-51	Petrobras	4Q2008	180,000 bpd
Frade	Chevron	4Q2008	100,000 bpd
BC-10	Royal Dutch Shell	2Q2009	100,000 bpd
Golfinho Mod III, FPSO	Petrobras	1Q2010	100,000 bpd
Jubarte II, P-57	Petrobras	2Q2010	120,000 bpd
Chinook Norsk Hydro	**2Q2010**	**60,000 bpd**	

Table: TOG2 Source: Energy Information Administration

ter drilling is predicted to remain at constant levels of approximately US$ 2.3 billion at least until 2010. The long term potential for investments in the Brazilian oil sector is also illustrated by the growth of spending for Seismic Data Acquisition, which will reach US$ 283 through to 2008, and then decreasing to US$ 259 million in 2010.

The use of floating platforms is expected to peak within 2007, shifting focus to sub sea activity over the next period. The use of fixed platforms in Brazil has historically always been minimal, and the total expenditure on fixed platforms will continue to be small compared to the spending on sub sea activities and floating platforms.

Looking at the equipment and services sector, there are mainly four areas where Norwegian companies can compete with international and Brazilian companies. These are within the development of new subsea fields, equipment for FPSOs, equipment for supply vessels and equipment for the maintenance and operation market. This is according to Guldbrand Wangen, director of the organization INTSOK in an interview with E24.

There are great opportunities ahead in developing the natural gas resources in Brazil. Brazil is building a capacity within LNG in order to become less dependent on Bolivian imports.

Challenges

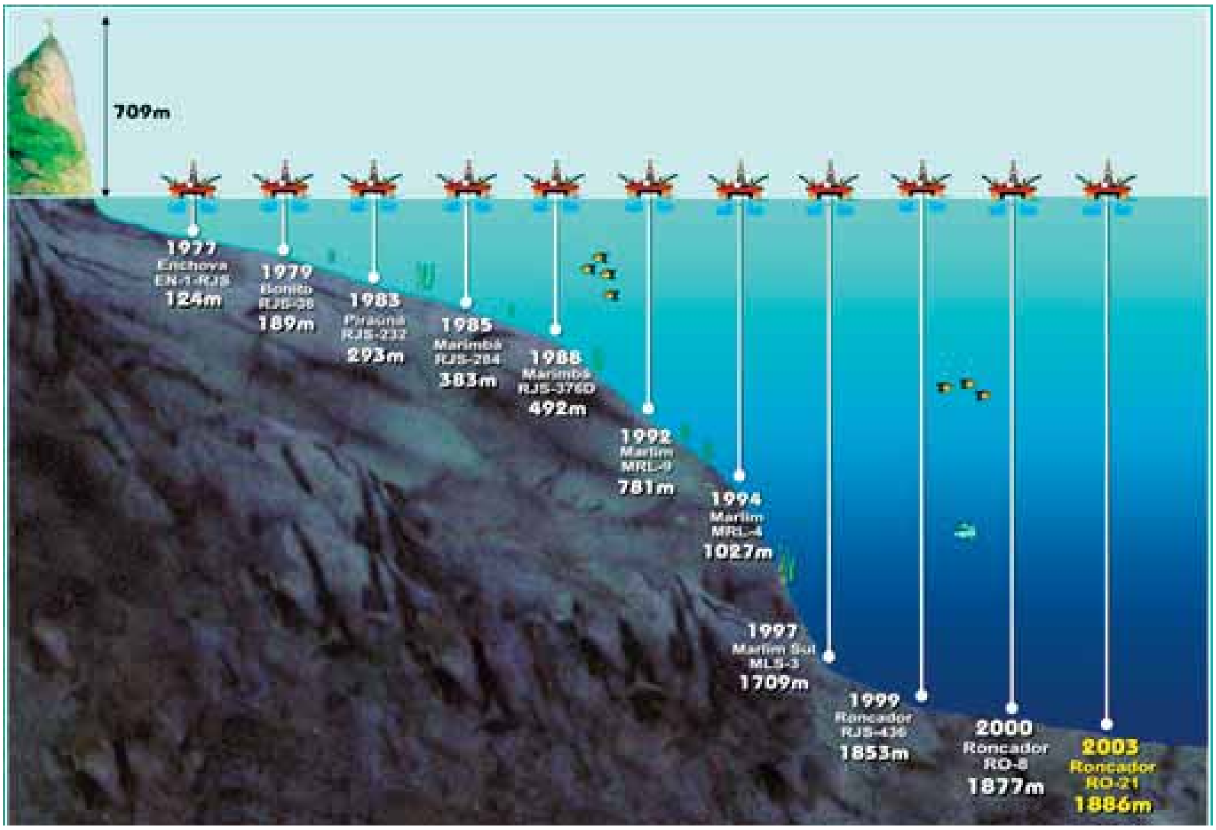
When it comes to production, the main challenge in Brazil is the depth of the main reservoirs and the weight of the oil. About 90% of the Brazilian proven reserves are offshore, with 64% of the concession areas in deep and ultra deep waters.

The ultra heavy oil and the ultra deep depths result in expensive production. Lifting costs for Petrobras in 2006 were US$ 6.59/bbl without government takes and US$ 17.64/bbl with government takes. Both had a real increase from 2005 caused by higher rig costs and higher service costs from a tight market. Still, compared to the same companies lifting costs internationally, which is US$ 3.36/bbl, one gets an impression of the costs. In addition, the heavy oil is difficult to recover and to refine. Petrobras has refining costs of US$ 2.29/bbl, and the cost is still increasing, as the refineries have to adapt to more and heavier oil. The amount of oil that is possible to recover from the wells is low as well. Petrobras say they can extract around 30%, while Norsk Hydro said they used 20% when investments where calculated.

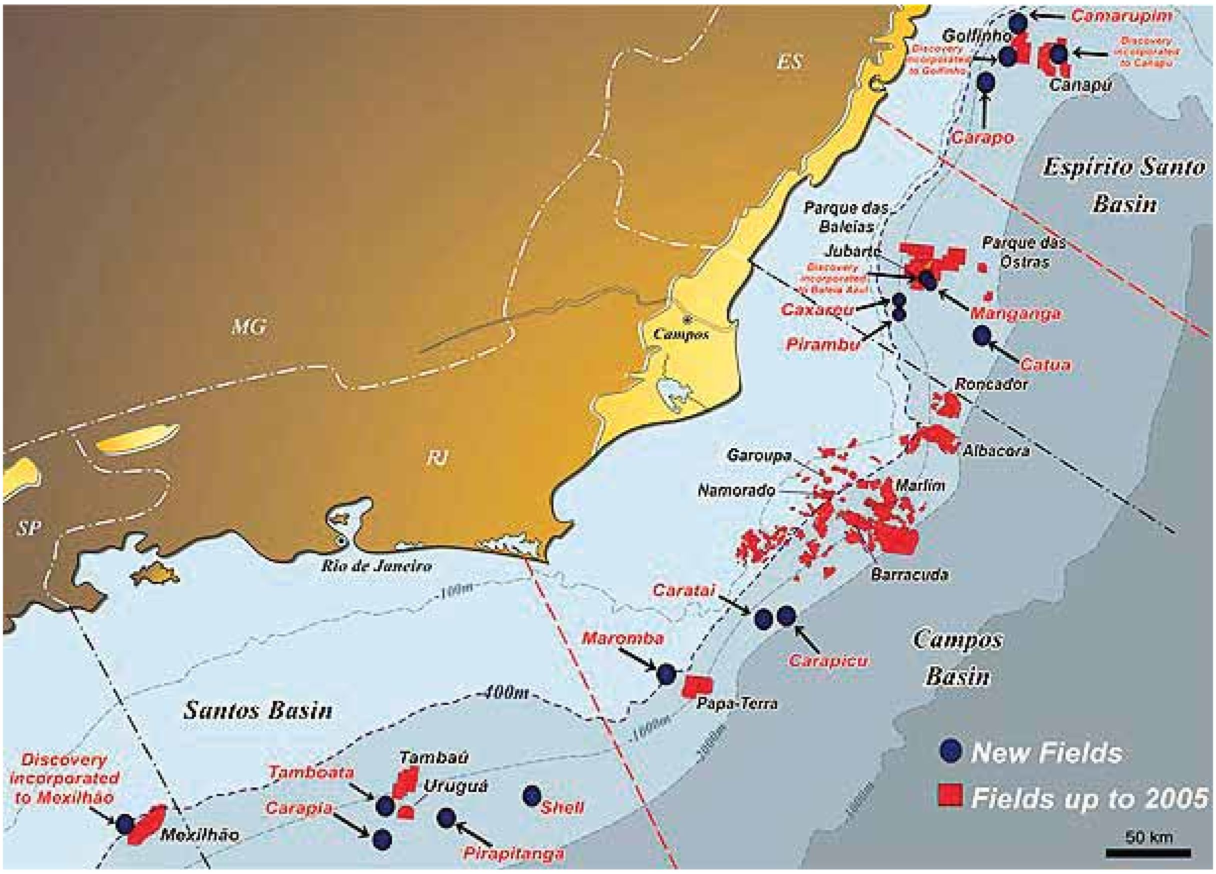
The Petrobras dominance in the market is also a great challenge for international oil companies trying to establish in Brazil. Petrobras lays great pressure on the suppliers by being as large as they are. This restricts the supply market heavily, and will probably continue like this at least until 2010.

There are also major challenges within the framework for doing business in Brazil. The cost of capital is extremely high, with interest rates soaring at above 13%, having dropped by 4 percentage points in 2006 alone. This makes the financial model of the company extremely important, and balancing debt and equity is different from Norway.

The taxation system in Brazil as a whole is characterized by multiple problems, and this makes setting up a company in the country very difficult. It becomes even more difficult when dealing with all the different aspects that a company needs to face within the oil and gas industry. For instance, there are different taxes when importing parts to a system compared to importing the system fully assembled. There are also more than 50 different taxes, some are applied many times on the same tax base, and it is highly complex. Adding even more to the complexity is the fact that



POG2: Petrobras drilling deeper.   Source: Petrobras



POG3: Brazilian Oil Wells   Source: Petrobras

most regions have their own taxes, not unified with the rest. Because of these regional differences, the local governors can put their own value added taxes (VAT) and import taxes on individual companies.

The labor market is very complicated as well. Although labor in Brazil in general is cheap, the social costs and benefits are very high. You end up paying almost as much in social costs as you do in wages. This is one of the main reasons why such a great percentage of the labor market is undeclared work.

Geography

Most of the Brazilian oil reserves are located offshore. The oilfields are named after fishes like Barracuda and Peregrino, and are grouped into basins.

The Campos basin is the largest oil reserve on the continental shelf, and stretches from the state of Espirito Santo in the south to Cabo Frio, on the northern coast of the Rio de Janeiro state. It covers around 100 000 square kilometers, and produces approx 95% of all offshore oil in Brazil. This is more than 80% of all the oil produced in the country. At this date, there are more than 400 wells in the basin, and more over 3900 km of oil and gas pipelines crisscrossing the ocean floor. However, the Espirito Santo and Santos basins offer great potential for good business deals as well.

When it comes to which city is the oil city of Brazil, there is no doubt: Rio de Janeiro is the capital of the oil industry. Here, all the international oil companies have their headquarters together with Petrobras and around 80% of the oil related industry in Brazil.

Licensing rounds

In order to participate in Brazilian bidding rounds a company must be individually fully qualified by submitting certain documents. The first step is presenting an expression of interest. Second, a company has to meet the requirements of technical, financial and legal qualification. Technical qualification of the companies will be based on their respective demonstrated experience in oil and gas exploration and production activities. A company may seek technical qualification either as non-operator or as operator. Third, legal qualification implies documents presenting control of company affiliation and a declaration concerning legal status. The financial qualification includes consolidated financial status and relevant obligations and mid-term planning.

A participation fee that varies according to the basin where the blocks are located is also required. Such fees may be paid by sector or group of sectors, and a company may only submit bids for blocks located in the basin sectors for which they have paid participation fees. After you have paid the participation fees you could get hold of the information related to the sector of interest. The information is stored in data packages provided by ANP. A data package for a sector includes general information, maps, seismic data and well data.

Brazilian licensing rounds is said to be one of the most transparent ones in the oil industry. The bidding process usually takes place once a year at a hotel in Rio, and the last round (8th) took place at the Copacabana Palace Hotel in November 2006. In order to prevent the licensing rounds of being corrupted, strict rules have been imposed to the bidding process. The process is divided into three steps. In the first step all the blocks are presented to the companies present. Second the companies put their bids in an envelope and place it in a glass container, where the envelopes are always in sight. When all the bids are received, a jury opens the envelopes and evaluates the offers. They are ranked in a specific pattern evaluating the offers by three criterions (see left figure). The signature bonus is the actual bid in monetary items. The local content is the use of local resources the company commits itself to use, while the minimum exploratory program is practically how much seismic activity and how many wells you assure to drill. The best offer is made public and the company it belongs to gets the license for that specific block. On top of all these transparency measures the whole bidding process is broadcasted live on national television.

Since Brazil opened up its oil industry in 1997, eight licensing rounds have been arranged. The blocks offered at each round have increased every year as shown in table TOG 3 (see page 44).

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Offered blocks	27	23	53	54	908	913
Awarded blocks	12	21	34	21	101	154

Round 7		
Offered blocks with exploratory risk	1.134	In Brazil Round 7, besides the blocks with exploratory risk, ANP also offered marginal fields.
Offered blocks with exploratory risk	1.134	
Awarded blocks with exploratory risk	251	
Marginal fields offered	17	
Marginal fields awarded	16	

TOG 3 Blocks offered in license rounds 1-7

Case study 2.11: Petrobras – the Brazilian giant

Petrobras (Petroleo Brasileiro SA) is a semi-state owned company, e.g. the state has a majority of shares with voting rights. It is listed on the Brazilian Bovespa and on the NYSE, and operates worldwide. They are the dominant player in the Brazilian oil sector, holding dominant positions in all up-, mid- and downstream activities, and are proud of their position in the whole value chain. The company held a monopoly in the country until 1997, when the government opened up the sector to competition and freed the oil prices from state control. It still controls more than 90% of the crude oil production in Brazil, however new regulations set limits for how many new projects Petrobras can be involved in for each bidding round. Although this new regulation is being implemented to try to attract more foreign investments, Petrobras will remain the dominant figure in the sector for the foreseeable future.

Petrobras said in a statement on Saturday January 13, 2007 that its Brazilian oil and gas reserves receded to 10.573 billion barrels of oil equivalent by Dec. 31, 2006, compared to 10.578 billion barrels a year earlier, according to the strict criteria of the U.S. Securities and Exchange Commission, or SEC. Petrobras said its domestic production reached 705 million BOE in 2006, while the company added 700 million BOE as new domestic oil and gas reserves during the year. At current production levels, domestic and foreign reserves will last 14.5 years, Petrobras said.

Petrobras has aggressively expanded production in recent years, and have stated that they will continue expanding in the upcoming period. However, Petrobras also experienced difficulties in developing new projects on schedule, facing construction delays, rising costs and shifting government regulations.

POG4: International Business Brazil in meeting with Petrobras

Petrobras is worldwide recognized for their experience in deep to ultra-deepwater technology, with 665 offshore wells from a total of 13 821 oil and gas producing wells, and 46% of their proven oil reserves are on depths exceeding 1000 meters. They are continuing to invest heavily in R&D, around US$ 2 billion each year. Because of their expertise and their dominant role in the sector, almost all work within oil and gas in Brazil will involve some dealing with them on some level. It is then good to be a Norwegian company, as the Norwegian companies in general have very good relations with Petrobras, and the Norwegians in Brazil enjoy much respect.

It is also important to notice the close ties between Petrobras and the government. Although the company no longer is as tightly controlled by the state as it used to be, it was noticeable that the whole management team was replaced as a new government came into office in Brazil in 2002.

The Brazilian licensing round 8 was suddenly cancelled by ANP due to two legal decisions proposed by the Legal Department in Brazil. A national judge was imposed by massive political pressure to put restrictions on the amount of bids a single company could offer. The cancelled auction was very bad news and had big effects for foreign countries with investment plans in Brazil. Norsk Hydro was one of the companies involved in this round, and got its bids cancelled after the legal decision. ANP is still working on this case and until the present moment there is no legal decision regarding this matter. All the acts that followed the moment of interruption have been suspended and the previous ones, like Norsk Hydro's case, are undefined.

February 2007 CNPE (Conselho Nacional de Política Energética) authorized ANP to start the geological studies to select the blocks to be offered in the 9th Brazilian licensing round. The interrupted 8th round resulted in great dissatisfaction among international oil companies with interests in Brazil, and it may seem like ANP compensates by including some of the most interesting fields in the 9th round. Areas in eight sedimentary basins are being evaluated for Brazil Round 9, including some of the most important ones like the Campos, Espírito Santo and Santos basin. ANP has announced that Brazil Round 9 will be held in mid-2007, and that it will follow the previous rounds model, including areas in mature, new frontier and high potential basins. However, previous rounds have been delayed.

Environment

Environmental issues represent a substantial insecurity within the oil and gas sector of Brazil. Companies are very exposed towards the environmental threats that face the country. Preserving the rich sea life and maintaining the animal and plant life on land has become increasingly important to the government, after heavy pressure from national and international NGOs.

Because Brazil faces some major challenges concerning environment protection, almost all processes and aspects within the exploration and production require environmental licensing. This goes through Ibama, the Brazilian environmental agency. To obtain this license is tedious work and a very bureaucratic procedure. Once an operator submits an application for a permit to drill, Ibama has six months to respond. However, they always use at least six months, and Statoil do Brazil always calculates with several months more for a license to be completely obtained. When a license is obtained, even more months pass by before permits are issued as the oil operators respond to Ibama's objections.

The application for licenses involves substantial risk. When a license is obtained, it often comes with a requirement for the wells to be drilled within a short time period, which in turn obligates a company to make all the necessary preparations like securing a rig and other expertise before the license is obtained. In addition, Ibama and local environmental organizations are very strict when it comes to oil drilling close to land. For example, in the biological reserve of Santa Isabela, Devon Energy was forced to return two blocks as Ibama decided the wells were located too close to a marine preserve habitat. The company had, together with its Chilean partner Sipetrol, already contracted rigs for the work and suffered a substantial financial blow.

CSR

The Norwegian minister of international development, Erik Solheim, has expressed a desire for Norwegian businesses to be vanguard companies encouraging CSR and social dialog in Brazil. In that matter he has launched a project where the Norwegian government is trying to establish a Brazilian-Norwegian collaborative forum to encourage a dialog between the industry, labor unions and government. The Brazilian labor unions, with the main organization CUT leading the way, is very positive to companies taking more social responsibility. Norwegian LO is also involved in this process in Brazil. Having tight connections to CUT, LO has already given resources to Brazilian FAFO (Observatorio Social) who has evaluated the workers situation in production companies like Norsk Hydro and Norske Skog.

A research study performed on CSR among companies in Sao Paulo, shows that the benefit for the companies giving economical support to social projects is greater than the actual benefit for the receivers of the support. The organizations promoting CSR specify that companies must have a long run plan for their involvement in social projects and not just look at it as a single time charity support.

One of the CSR projects supported by Norwegian companies is Norsk Hydro's Ser Menina ("being a little girl") program in Campo Grande program. Campo Grande is one of the many urban areas in Brazil characterized by a violent environment and a high crime rate. The Ser Menina project follows up on teenage girls to get them off the streets and provide them with education.

Corruption

In general, corruption is a major issue in Brazil. However, it is very hard to get any real information about this. As the ANP has taken Brazil's reputation as

scanpartner Trondheim

oljemygg, -en; -er, -ene (små, effektive oljeselskap. Kun ett eksemplar er observert i Midt-Norge).

Midt-Norges oljeselskap

Pertra er regionens eneste oljeselskap. Selskapet er ett av de største norske operatørselskapene med tre lisenser i Norskehavet og fire i Nordsjøen. Videre planer omfatter leteboring i både Norskehavet og Nordsjøen samt utbygging og produksjon av Frøyfeltet.

Pertra ASA ble etablert i Trondheim i 2005, har 35 ansatte, mer enn 1000 lokale aksjonærer og er børsnotert. Selskapet er i rask vekst og trenger stadig nye medarbeidere.

Pertra leter etter olje og gass i mindre prospekt enn de store oljeselskapene normalt gjør, og kun på norsk sokkel. Selskapet har 40 millioner fat olje påvist i sine lisenser.

pertra
www.pertra.no

Case study 2.12: Norsk Hydro (NHY) – upcoming operator

Hydro has been in Brazil for more than 30 years with their aluminum and former fertilizer activity, and has been considering Brazil as a possible area for oil and gas activities since 2001. First, they carried out regional studies including basin modeling for various basins, creating a large regional database of wells, seismic and field data. Their aim was to use their technology and experience from 30 years of oil and gas in the Norwegian continental shelf.

In 2005, NHY acquired a 50% stake in the Peregrino field (BMC7 field of the Chinook asset) for US$ 350 million from Encana, marking Hydro's first substantial investment in the oil and gas sector of Brazil. The development of the field is scheduled to finish in 2010, when Hydro will be the first Norwegian oil company to work as an operator in Brazil. They have the field together with the American oil company KerrMcGee, which will take over the operator responsibility after the field has been developed.

In addition to this heavy investment, NHY won three licenses in the eight licensing round in December 2006. This ensures NHYs long time strategy in the area.

As a contradiction to most of the other Norwegian companies in Brazil, Norwegian Kjetil Solbrække manages Hydro Brazil at the time when this report is being published. The reason for this was because of the substantial investments to be made in the country, which cannot be compared to that of other companies so far. Therein lays heavy responsibility on the president of the local company towards the mother company. This requires a long relationship to the company in order to be fully into the company culture and the expectations of the company headquarter in Norway. So far, the company enjoys excellent relationships to the local oil and gas community and to the government and executive powers. So, the case of Hydro shows that although most Brazilians we met in leading positions claimed that it was of absolute importance to have a native director because of the knowledge of culture and his /her network, it is absolutely possible to be a Norwegian director in Brazil.

a corrupt country, they have done much for limiting the possibility of corruption in the oil and gas sector, and towards making the sector as transparent as possible. This can especially be seen in the bidding rounds, which are as transparent as possible. According to some of the persons we talked to, there is a difference between the upstream and the downstream areas.

A description of the situation is that corruption is more an option than an obligation. This can for example be seen in cases of emergency, where there might be a need for someone to react fast. There is an option in most cases to pay a bit extra in order to speed up the process, especially towards subcontractors. However, with the right network on hand it is fully possible to do this without turning to corruption. Another example is when importing components to the country. You might meet a local customs officer or a local harbor manager that wants something extra, but if you do not pay, the only thing that will happen is that the process is being delayed somewhat. And in that case, all you need to do is to call a local politician or bureaucrat, who will be afraid of the reputation of the sector, and he or she will put pressure on the right places. The media works as an effective watchdog in Brazil, and everyone is very afraid of being exposed as corrupt.

Oil quality

Of course, oil quality is a very important issue in the economic assessment of oil production. Poor oil quality diminishes the economic value of a project, and can make it unprofitable.

In Brazil, more than 44% of the proven oil reserves consist of heavy oil. This percentage is increasing as more reserves are discovered offshore, where most of the new oil is heavy. Especially is this true for the Campos and the Santos Basins, which hold the largest potential of recoverable oil. (See fig., page 48)

Because of the sandy rock, however, the permeability of the oil in Brazil is very good, having an average between 4 and 5 Darcy, but may reach as high as 10 Darcy in some places.

Norwegian oil companies in Brazil

Since the Brazilian oil and gas sector opened to foreign companies, numerous international firms have established in Brazil. This includes the Norwegian companies Statoil, Hydro and Norse Energy Corporation.

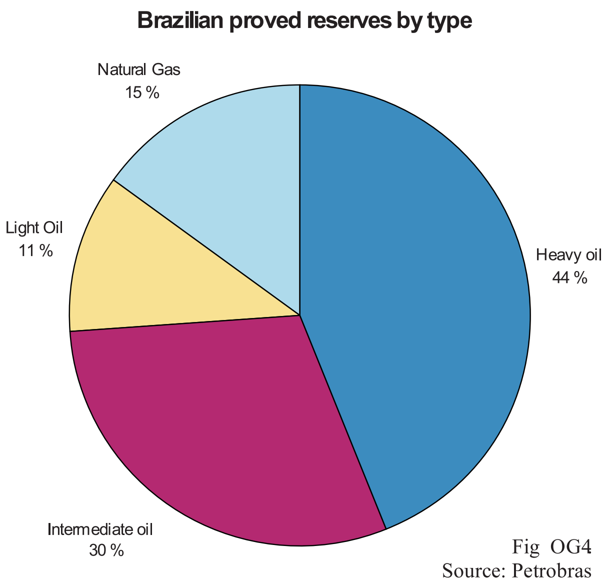


Fig. OG4   Source: Petrobras

Norwegian oil and gas companies enjoy a very good reputation in Brazil. First of all, the Norwegian model for keeping the return of the sector within the country is admired and adapted by the Brazilian government and Petrobras. Therefore, substantial pressure is put on foreign companies for local content, CSR plans and environmental licensing.

In addition, Norwegian companies are viewed as non-imperialistic. This actually means a great deal in Brazil, as the country's colonial past explains much of the social differences. In addition, we have expertise from the North Sea, a technical insight that is very much appreciated. Norwegians are looked upon as fair and not-exploiting, technical competent and very structured and honest people.

Our experience was that Petrobras especially liked to compare themselves to Statoil in areas like CSR, HSE, technical profile and regional importance. In the Management & Excellence Annual Multi-Client Study of 2006, Petrobras and Statoil came out almost identical as some of the most ethical and sustainable companies in the world.

ANP - National Petroleum Agency

The National Agency of Petroleum, Natural Gas and Biofuels (ANP) is an integrated entity of the Federal Public Administration, tied with the Ministry of Mines and Energy. All rights to petroleum and natural gas exploration and production on the national territory must be administered by the ANP. This includes the onshore area, the territorial sea, the continental shelf, and the exclusive economic zone. The ANP defines which blocks should be an object of concession contracts. It has for purpose to promote the regulations, the Contract Act and the fiscal policy of the economic

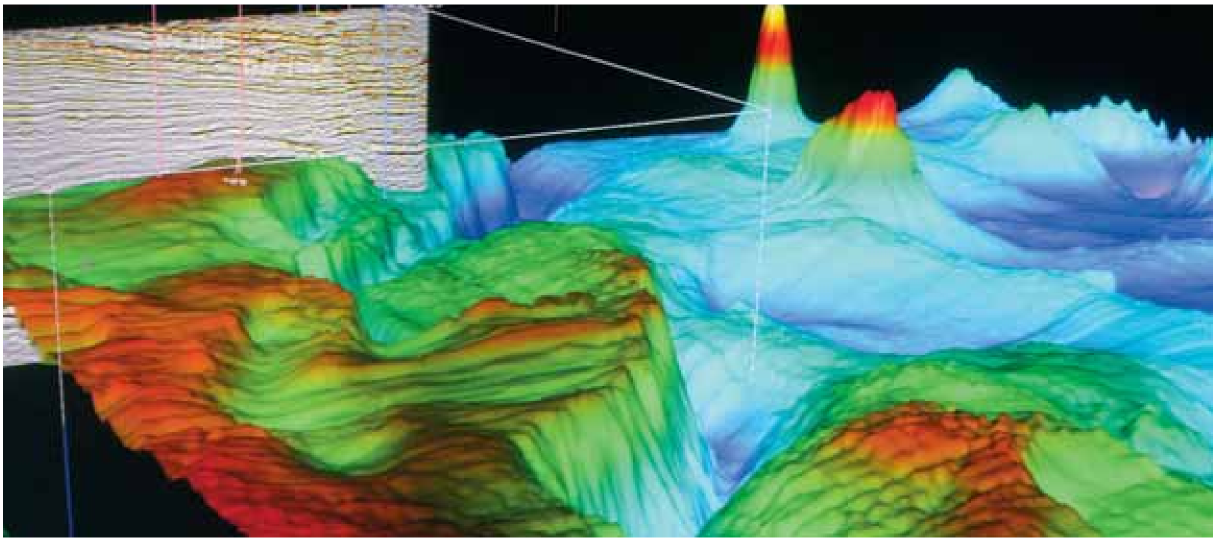
Case study 2.13: Norse Energy – networking to achieve goals

Hydro has been in Brazil for more than 30 years with Norse Energy Corporation (NEC) is engaged in oil and gas exploration and production with operations in the US and Brazil. The Brazilian oil and gas reservoirs have become the priority area for future exploration and production. The company was officially founded in 2005, and is a result of a merger of NaturGass (USA) AS, a Norwegian private company, and Northern Oil ASA, a Norwegian publicly traded entity. The company's operations in Brazil are organized through its subsidiaries Coplex Petroleo do Brazil and Norse Energy do Brazil.

In contrast to NHY, NEC is a non-operator dependent on cooperating with other companies in order to obtain licenses. The company participates in various blocks offshore and onshore and own 50% of Cavalo Marinho, 65% of Estrela-do-Mar and 35% of the Coral fields. The operator on these fields is Petrobras.

As a non-operator NEC emphasizes the importance of having good relationships and a broad network in the oil and gas industry. Different from NHY, NEC has chosen to have a mostly Brazilian management with few Norwegian employees. They have hired people previously working in the Brazilian oil and gas sector, as for example Petrobras. This has helped them getting the right network and contacts to achieve their goals in Brazil. We see that NEC, as a small non-operator, differs from NHY on this field.

One of the main challenges of being a non-operator in Brazil is that it is sometimes quite demanding to collaborate with other companies like Petrobras. This comes mainly of their differences in defining acceptance limits regarding profitability, risks, or maybe even their estimates for the oil price. This can make things a little more complicated, but has never been a great problem for NEC.



POG 5: Visualization of seismic data

activities of the oil industry in accordance with the law. In short, the purpose of ANP is to promote regulatory measures, contracting and monitoring economic activities inherent to the petroleum, natural gas and biofuels industries, being responsible for implementation of the national policy for petroleum.

Rio Oil and Gas

The Rio Oil and Gas Expo and Conference are the leading oil and gas industry event in Latin America. Every second fall the industry gathers in Rio de Janeiro for networking and looking at new technology, with the next conference being in 2008. The conference is growing in international importance, and has become almost as large as the ONS expo in Stavanger, Norway. In September 2006, the Norwegian delegation to the conference in Rio was the largest, with more than 50 different companies registered.

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Visit at Innovasjon Norge offices in Rio de Janeiro, interview with Erik Hannisdal
Visit at Confederacao Nacional da Industria, interview with Tatiana L. Palermo, Analyst

2.2 Shipping

Introduction

"Much of Brazil's natural competitive advantage is offset by problems related to the infrastructure." (Philippe Wauters, Vice President of Star Shipping do Brasil)

Brazil's main export commodities are raw materials and semi-finished products. Brazil is a net exporter, dependent on the demand of importing countries. The bulk market represents the largest shipping market in Brazil. The most important bulk cargos exported from Brazil are iron ore, steel, grain, soybeans, pulp and forest products. Developing an efficient infrastructure has been of critical importance for a country as large as Brazil, and most of the economy is dependent on transportation.

80 % of the population lives along the coast and most of the domestic transportation is done by roads which are in bad shape. This creates opportunities for maritime transportation. However, shipping is still not the preferred mode of transportation. Main reasons for this are the poor conditions of several ports, an inefficient bureaucracy and a general lack of investments. In the glory days of the 1970s, Brazil was a major shipbuilding country which was political led through subsidization. When corruption were discovered this subsidization ended, and almost every shipyard went bankrupt. Compared to the past, Brazil's present shipping industry faces quite a few obstacles that must be overcome.

The main reason for the upswing in the shipping industry is the heavy investments in the offshore industry, mainly driven by Petrobras and its logistics and transportation company Transpetro. Today the shipping industry is very dependent on Petrobras, and the shipbuilding industry has been revitalized to support the offshore wave. The reason for this revival is a combination of factors: the demand for fleet renewal, political determination and the availability of favorable local financing. Transpetro's newbuilding program demands for 60% national content. They have signed a contract for 42 vessels which makes this the largest single order ever made in the Brazilian shipping industry. The goal is to contract 82 vessels over the next few years. By doing so, the government expects to revive the country's shipbuilding industry and create local jobs.

It is important to point out that Brazil must not create an industry dependent on protective measure or favorable treatment. If Brazil is going to possess a shipbuilding industry, it must be sufficiently vital to compete internationally.

Ports

Brazil's export led economy calls for increased infrastructure investments. Approximately 93% of Brazil's international trade is by ocean freight (2006). Before 1993, the Federal Government controlled nearly all the ports. In 1993, the Port Modernization Law was passed, decentralizing, deregulating and reducing state control of the sector. Brazil's public port system is now run through eight federally owned companies, five state concessionaires and one private port concession. In 2005, the "Agenda Portos" was passed into law. This is a Federal Government investment plan, and the main objective is to modernize the ports' infrastructure conditions. Its objective is to point out all legal, institutional and operational problems that hinder port efficiency in Brazil. The Agenda Portos does not consider investments in privately operated terminals.

Brazil began the process of privatizing all of its ports in 1995. Large investments have been made (an estimated US$ 615 million), but the demand for port services continues to be much greater than the services offered. Improved technology allows for larger ships, but the ports in Brazil are old- fashioned and too small. If Brazil's GDP growth continues at its current rate of 3% to 4% per year over the next two years, the existing ports will not be capable of handling the increased demand and will become a bottleneck for Brazil's economy. Some sectors are already at risk of suffering due to a lack of efficient port services. According to the Brazilian Port Terminal Association (AssociaÇão Brasileira dos Terminais Portuários, ABTP), Brazilian exportation is set to increase by more than 50% in the next 5 years. For example, the exportation of sugar grew more than 11.4% in 2005. The US Foreign Agriculture Service (FAS) predicts that Brazil is likely to produce 61 million of metric tons of soy in 2006/ 2007, which translates to a 23% growth in total Brazilian exports. Pressure on Brazil's infrastructure seems certain based on these examples.

It is generally recognized that the federal government is not impending the Agenda Portos as fast as necessary. However, there are significant levels of planned

Case study 2.21: Star Shipping – facing port size problems

Hydro has been in Brazil for more than 30 years Star Shipping's Brazilian office was opened in 1994 and it is their only office in South-America. Star worldwide controls more than 70 ships on a daily basis. The major problem for Star Shipping in general is the problems with lots of cargo going out and little cargo going into Brazil. This is because Brazil is exporting more than it is importing. This problem occurs equally for containers, chemical and liquid carriers. It is easy to find a carrier to Brazil because lots of ships are returning empty. One vessel costs about US$ 14000-15000 in fuel each day, and it is expensive to return to Brazil without any cargo due to the fuel prices.

Nowadays ships are getting larger due to economy of space. It is efficient to use bigger vessels to save money and direct costs, and thus becoming more competitive. Due to the fact that the Brazilian ports are very old-fashioned, this is restraining the development and this is another challenge because it causes a lot of queues which are expensive. It is not possible for Star to expand their ships since the ports are too small. Development in the ports is difficult because it depends on political influence, but in the recent years an increasing number of ports have been slightly improved.

Another important aspect pointed out by Star Shipping, was the differences of costs between Brazil and Norway. The differences of tax levels between Brazil and Norway may be to a benefit for running businesses from Brazil in comparison to Norway. However, this gain is truly outweighed by a large level of indirect costs and inefficiency in Brazil. The fact that trucks transporting goods on badly conditioned Brazilian roads need to change tires three times as often as in Norway, is one example of additional indirect costs experienced in Brazil.

Star is specialized in open-hatch-vessels and they operate more than 40 ships of this type. They have a unique position in transportation of forestry products and they are the largest supplier for Aracruz in Brazil. This kind of transportation is based on long-term contracts.

International business Brazil in meeting with Star Shipping

investments in Brazil's port infrastructure, which opens up for opportunities to sell Norwegian quality equipment, technology and services to Brazil.

Port locations

Santos is the principal port of Brazil (São Paulo state). The ports of Santos as well as Rio de Janeiro and Rio Grande are important container terminals. The port of Suape Industrial Complex, is one of South Americas most important deep- water ports. Ports such as Fortaleza, Ilheus, Paranaguá and Vitória handle large numbers of containers with conventional shore cranes and/ or ship's gear. Other important ports are Pecém (Ceará), Sepetiba (Rio de Janeiro), Salvador (Bahia), Itaqui (Maranhão) and Porto Alegre (Rio Grande do Sul).

Port of Santos

Santos is Brazil's largest port, administrated by Companhia Docas do Estado de São Paulo (Codesp). Santos is the State of São Paulo's port for industry, agro-industry and agriculture. It also serves large areas of the regions south-east, south and central-west in Brazil, as well as the Mercosul countries. Santos moves one-fourth of the products traded by the country within the international market in terms of value (US$ 191.9 billion in 2005). Port of Santos' security is compliant with the requirements of the ISPS Code.

Port of Suape

The Industrial Port of Suape is administrated by the state of Pernambuco. The Suape Port and Industrial Complex is a hub in the Northeast Region of Brazil for the location of port and industrial businesses. Suape can dock vessels up to 170 000 DWT and has an operational depth of 14.5 meters. The port complex is situated 40 kilometers from Recife and is a point of convergence for the principal trade routes linking the Atlantic coast of South America to other continents. The port is connected to the national highway and rail networks. The most important goods imported are refined zinc, tires, fiberglass, chemical products and fish. The most important goods exported are granite, furniture, paper, steel, ice cream and glass. Major destinations are the east coast of the United States and Europe. A project to build a new refinery is projected to start in the second half of 2007. Suape's security is compliant with the requirements of the ISPS code.

Port of Vitória

The port of Vitória is located in the capital city of the state Espirito Santo. It is administrated by Companhia Docas do Espirito Santo (Codesa). It is facilities are located along both sides of Vitória, in the cities of Vitória and Vila Velha. Vitória is a strategic port for Brazilian international trade. Most important goods are liquid bulk cargo, wheat, automobiles, malt, cellulose, sugar, flexible tubes and containers. Currently, the port is receiving public investment amounting to approximately BRL 30 million, which will be used to solve structural problems such as dredging. The ISPS code is being implemented.

Port of Sepetiba

The port of Sepetiba is located in the city of Itaguai in the state of Rio de Janeiro, approximately 80 km from Rio de Janeiro. The port is administrated by Companhia Docas do Rio de Janeiro (CDRJ). The port received BRL 24.6 million from the federal Government for infrastructure work, and is expecting US$ 626 million in private investments. The port has a number of major advantages. The bay which the port is located in is out of storm paths. The location is excellent, between the two largest production and consumption centers in Brazil- Rio de Janeiro and São Paulo. The most important goods are coal, aluminum and iron ore. The port will soon begin shipping soybean and cement (for export), wheat and barley (for imports).

Shipyards

In the postwar period, Brazil built world-class yards, but the change of regime and the general frameworks in the 1970s destroyed several shipyards. However, the shipbuilding industry in Brazil is now growing again. This has been driven by developments within

International business Brazil in meeting with Aker Promar, Halvard Idland (left).

oil and gas exploration in Brazilian waters. The building of new ships has been initiated both privately and by Petrobras. According to Erik Hannisdal (Innovation Norway, Director of Latin America) there is no reason to believe that this growth will stop.

Today, the Brazilian fleet is getting old. Several shipyards are old as well, suffering from a capacity which is already stretched, meaning that new yards will have to be built and most existing yards must be modernized. Aker Promar has approximately 50% of the Brazilian market. Today, there are about 140 supply vessels operating in Brazilian waters- 90 under foreign flags, and 50 under the Brazilian flag.

Of the 115 tankers Transpetro operates, 60 are chartered, and 22 scheduled for retirement within 6 years – the need for tonnage is definitely there. Petrobras' long- term strategy is to move from energy self- sufficiency to become an exporter of oil products, and Petrobras is investing US$ 56 billion over the next 10 years. Transpetro has launched a construction program that involves 20 000 new jobs. The goal is to substitute all the chartered foreign flag supply boats. The first phase involves 22 vessels to be built before 2010. Secondly, 20 more vessels will be built within 2015. At the opening of the construction program, President Lula said: "With the recovery of the shipbuilding industry we are going to show the world that we are not just good at football and carnival, and that the Brazilian worker has the quality to compete in any market in the world."

One of the greatest challenges in order to get Brazilian shipping industry back on its feet is to free them from the astronomic debts they took upon themselves dur-

Case study 2.22:
Norskan – in search for qualified Brazilian sailors

Hydro has been in Brazil for more than 30 years Norskan was originally a joint venture between Solstad and DOF. Today it is owned by DOF alone, a shipping company within supply. Solstad first entered the Brazilian market alone while DOF entered in 2002, and this opened for possible conflicts because of a small market size. Therefore, this situation led to a friendly separation in end of 2006. Solstad sold their share in Norskan and in return Solstad obtained DOF's share of NOR Offshore in Singapore.

Norskan has two offices in Brazil, in Rio and in Macaé. Rio's responsibility is concentrated on Finance and IT, while Macaé deals with the daily operations. Norskan is engaged in construction/subsea support, mainly with Platform Supply Vessels (PSV) and Anchor handling Tug Supply Vessels (AHTS). Norskan operates for DOF, GEO and DOFcon. Their main customer is Petrobras along with other oil companies. Their main competitors are Maersk and American shipping companies. Norskan wants to have a national profile and therefore all their boats are produced in Brazil. In that way, it is much easier to get contracts and gain goodwill in the Brazilian market. The biggest challenge for Norskan in Brazil is to find well qualified Brazilian sailors, and Norskan plans to hire approximately 60 in 2007. In Norskan's view the sailors have to be better trained. The marine budget in Brazil has been reduced in the last years due to a non-friendly marine government, and this has affected the education. Consequently, Norskan has established a good relationship with the quasi-military naval college which is placed under the Marine. Norskan wants to help modernizing the learning process, as well as contributing to some classroom refurbishments.

Norskan has built several vessels at Aker Promar. Some of the vessels under construction at Aker Promar make Norskan a pioneer since there has never been built ships of that size in Brazil before. The ships are able to make US$ 70 000 per day considered long term contracts with a duration of 3 to 5 years. The projects are financed by BNDES, the Brazilian Development Bank, which has favorable financing terms.

ing the 1980s. Still, the Brazilian shipbuilding industry has several competitive advantages, the close distance to a huge market being one of the biggest. The current growth in the oil industry and especially the offshore industry is another reason to the growth in the shipping segment. When we consider the cost of shipbuilding in Brazil, one would at first expect this to be a lot lower than Europe, and especially Norway. The fact is that, even though steel is relatively cheap, building a ship is 10-20% more expensive in Brazil than in Norway (This holds for Platform Supply Vessels (PSVs), according to Halvard Idland at Aker Yards. There are several reasons for this, among them the strong currency. In addition, 60% of the ship's components are imported from Norway. With the Norwegian currency being strong, buying components becomes expensive. Further, efficiency per worker in Brazil is 1/3 of that in Norway. This is due to old machines, less education and lack of experience. Still, there are plenty of reasons to be involved in the Brazilian shipbuilding industry: Norwegian actors are investing in the offshore- segment and it seems as Brazil has adopted the mentality we saw in Norway in the 1970s when it comes to development of the offshore sector. Brazilian shipbuilding is definitely an interesting market for both ship-builders and suppliers of equipment and services.

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2.3 Forestry

Within the forestry sector we met with two companies from the pulp and paper industry, the pulp producer Aracruz and the newsprint paper producer Norske Skog. We also had a meeting with the non-governmental organization (NGO) Instituto Bio Atlântica. These visits provided us with insight about a very competitive industry and the challenges it faces. The forestry sector is area intensive, which has given it a considerable amount of attention. Most of the attention has been directed towards the challenges related to deforestation and native people.

Competitive advantages

Our impression of the Brazilian forestry sector is that it seems to be very professional and at the same time manages to fully exploit the naturally given advantages. Due to an almost ideal climate for tree breeding and growing, Brazil has some of the most competitive plantations in the world. Both pine trees and eucalyptus trees grow to an ideal length in 7 to 8 years. If we compare this figure to Norway, where pine trees need some 35 to 45 years to reach the same lengths, the competitive advantage becomes quite obvious. In addition to ideal climate there are also vast areas that are used for or can serve as plantations. Despite considerable deforestation in the 1950s and 1960s, today there is actually support for plantations both from the political system and from NGOs.

"Key cost drivers are competitive..."
(Norske Skog)

Other competitive advantages of the Brazilian forestry sector are closeness between plantations and industrial plants, proximity to demand, a large domestic market, low labor costs and low priced energy.

Competitive advantages:
- Ideal climate and ecological conditions
- Vast areas that can serve as plantations
- Large domestic market
- Proximity between plantation and plant
- Low labor cost
- Low raw material cost
- Close to demand

Challenges:
- Deforestation
- Water supply
- Re-plantation
- Local farmers
- Native people
- Tax situation
- Declining demand for newsprint paper
- Reduce production cost even more to stay competitive

The Atlantic Rainforest

The Atlantic rainforest of Brazil is facing severe challenges due to past deforestation, but important measures are now taken to combat these problems. Instituto Bio Atlântica is an Non-Governmental Organization (NGO) which in recent years has started to work and focus on the challenges the Atlantic rainforest of Brazil is facing. During the last few years the institute has managed to get attention from several of the major actors within the Brazilian pulp and paper industry. Amongst their partners we find both Aracruz and Norske Skog.

The main focus of Instituto Bio Atlântica is on the Atlantic rainforest, which has higher biodiversity than the Amazon. Approximately 70 % of Brazil's population lives in the Atlantic forest area, and 80% of

Case study 2.31: Norske Skog – big on newsprint paper

Norske Skog is the world's largest newsprint producer with a 9% share of the global market. The company has 19 mills located in 14 countries worldwide with approximately 8000 employees. The production is 6 500 000 tons per year of newsprint, directories and magazine paper. Their main strategy is to be a low cost producer, to seek obtainable growth and focus on their core business; publication paper. In 2005 the group's total revenue was NOK 25.7 billion.

Brazil

Norske Skog has a strong market position in Brazil and is now the largest newsprint producer with a 50% share of the market. The sales office in Brazil is located in Curitiba while the paper mill facility is located in Pisa. The mill has capacity to produce 185 000 tons of newsprint. Recently, Norske Skog decided to transfer a paper machine from Norway that will increase the production capacity to 385 000 tons. Norske Skog plans to increase their workforce because of the expansion in capacity. This will also have an effect on the community, since the presence of the mill requires an increased amount of commodities and services for the employees. Machines and buildings will also be upgraded. These investments will make it sure that Norske Skog can meet the demands to high quality paper.

"We expect market developments for newsprint in South America to remain highly interesting", says Norske Skog chief executive Christian Rynning-Tønnesen. He further states that: "This investment shows good profitability, and will reinforce our position as the leading player in the region."

The Brazilian news market has increased with five present annually since 2003. Currently the demand for newspaper is so big that it is necessary to import paper from other countries. The consumption in the Brazilian market will reach 500 000 tons per year according to Norske Skog.

Pine tree

One of the key factors for Norske Skog is the mills location, which provides the company with raw material called pine tree. This type of wood is long-fibered and more common in the southern part of Brazil. Curitiba is a natural choice because of the good growing conditions in the area and closeness to the consumer markets. The process of planting and cutting of trees has been outsourced to other wood suppliers. To secure raw material Norske Skog has a long term contract for wood supply with a favorable price rate. Brazil is one of the regions that can provide low production costs, fast growing plantations and competitive pulp costs.

Environment

Norske Skog takes conscious actions to preserve the environment and the natural resources. Despite of no longer having ownership in the forestry plantations, Norske Skog keep sure that their wood supply comes from sustainable forests. Since biological diversity will preserve the soil and the Atlantic Forest. The environment is an important part of the quality of Norske Skog`s products. Certification and tracking systems are important tools for the company and can locate where the timber comes from. This is an important effort for Norske Skog in the Brazilian region

References:

Power point presentation to Norske Skog
Internet: www.norskeskog.no (annual report 2005)

Brazilian GDP is created here. This has resulted in visible consequences to the environment. Today only 7% of the original Atlantic rainforest remains, among others a result of deforestation and establishment of cattle farms during the last 50 years. No regulations were made to preserve forest on hilltops and along riversides, leading to large scale erosion. As a result, rivers are both drying up and being blocked. This is an issue of major concern both socially and for business. Both communities and businesses are dependent on water. The equation is quite simple; "no forest, no water – no water, no business". This is one of the reasons why organizations like Instituto Bio Atlântica have managed to gain considerable support and cooperation with business partners.

"The challenge is to conserve and promote sustainable practices..."
(Andrè Guimarães, executive director)

Replanting of trees will be absolutely critical to change the trend. Trees both store water in the ground and hinder drainage of mud. Replanting on hilltops and riversides are especially important. More than 120 million people live in the Atlantic region today, making it an enormous challenge to regenerate the Atlantic rainforest.

Need for environmental technology

Having managed to get the attention and support from key actors in the forestry sector, Instituto Bio Atlântica believes that conservation should be treated as business and be organized as joint venture projects between NGOs and the industry. The core competence of the NGO is to conserve nature while the core competence of the industry is to plant eucalyptus and pine trees. One major challenge lies in the fact that creating natural forest is a totally different technology than planting eucalyptus and pine trees. NGOs and the forestry industry should therefore join forces and exploit each other's core competences to develop new and good technologies for natural forest plantation.

Ecological corridors

There is great potential in getting the companies within the forestry sector to cooperate. Many of the different actors within the sector possess large areas of virgin rainforest. The problem is that these areas of virgin rainforest are scattered out and do not interact. For area demanding animals, like the jaguar, this is an issue of existential character. Instituto Bio Atlântica works to create ecological corridors, which can become a reality if the unattached and fragmented areas of virgin rainforest are connected in a mosaic structure.

Why cooperation and sustainable practices

Companies and NGOs can benefit from cooperation and sustainable practices in the following ways:

Companies:

a) certification
b) client loyalty
c) credibility with investors

Case study 2.32: Managing your union leaders well

Hydro has been in Brazil for more than 30 years According to the managers of Norske Skog, it is important to learn to deal with the union leaders. In the large cities in Brazil the union leaders are all politicized and negotiations often include political issues. However, in the smaller cities, where the political interest is not that important, union leaders have a better opportunity of defending the real interests of the employees. In these cases, the union leaders should of course represent the people on the "floor". We were told; an engineer would seldom or never be a union leader in Brazil.

The aim of Norske Skog in Brazil has been to educate the union leader rather than to exploit them. This, together with other issues has resulted in there not having been any strikes in the company for 20 years. Alfonso Kiehl Noronha, Vice President of External relations states that: "I always believed that negotiations belong to the company".

Mr Kiehl Noronha mentioned three key issues that helps build the relationship between the union leaders and the management in Brazil:

1) Respect the union leaders. They are your key contacts with the employees.
2) Teach them how to negotiate. Never exploit your power, but be transparent. Their inexperience should not be used to your advantage.
3) When it comes to negotiations, you should negotiate what the market offers. Neither above nor below.

Marine Subsea Group AS

d) society appreciation
e) better business environment

NGOs:
a) fulfillment of mission
b) efficiency and efficacy
c) large scale impact

The agricultural challenge

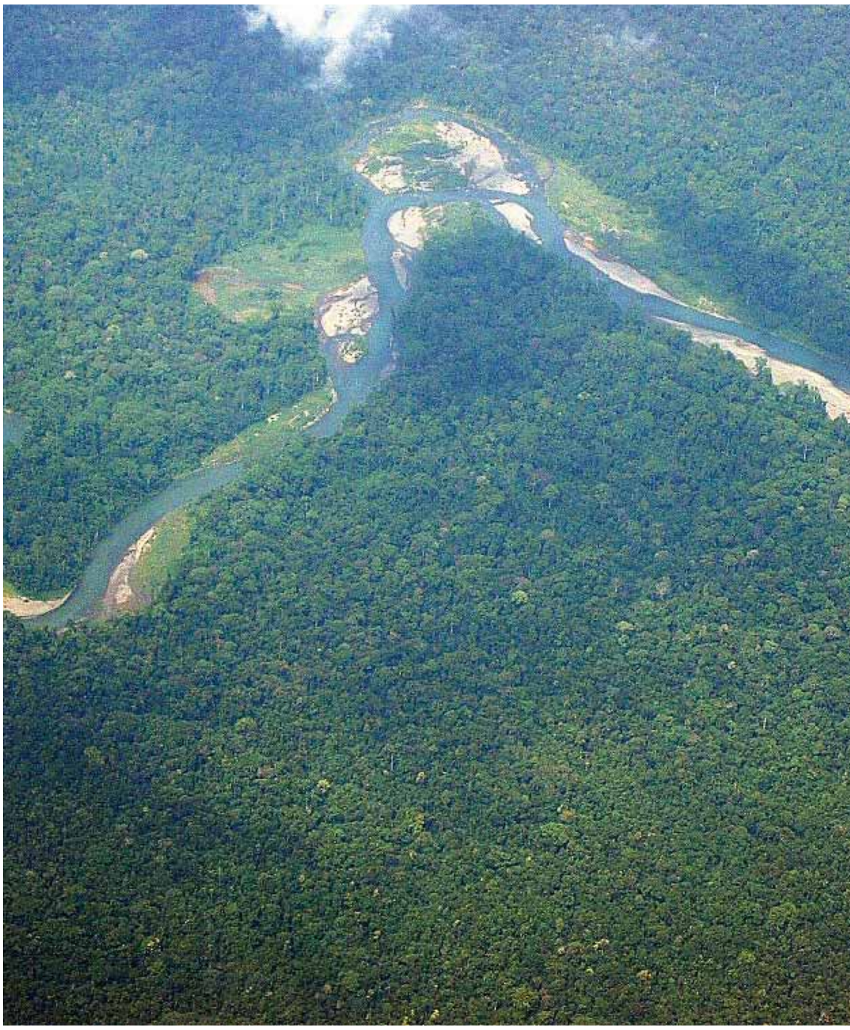
Another important factor in solving the problem of water supply is to encourage and get farmers to invest in planting of trees and diversification of their farms. For this to take place, one will need to convince the farmers that such changes are profitable. It is also important to create a supporting infrastructure that can provide the farmers with finances, knowledge and buyers. The ideal situation is to create well diversified agricultural properties, where properties consist of a mixture of tree plantations, crops and natural forest. Instituto Bio Atlântica believes that the Atlantic region needs to create a first good example for the idea to gain momentum.

Business opportunity

Based on conversations with representatives from the forestry sector we are under the impression that there is considerable potential for Norwegian investments within the sector. We want to challenge Norwegian farmers to consider internationalization and to make investments in tree and sugarcane plantations in Brazil. We sense a positive attitude towards investments and initiatives, due to the growing awareness replanting and diversification of agricultural properties has received.

According to Haakon Lorentzen, “the key to competitiveness is embedded in high quality forestry management combined with experience and knowledge in how to run geographically diverse agricultural properties.” According to Tom Mario Ringseth, these are qualifications and knowledge that Norwegian farmers possess. Transferring this knowledge could be a great opportunity and a competitive advantage in Brazil.

References:
The above is based on conversations in Brazil with representatives from the forestry sector and other stakeholders.



Case study 2.33: Aracruz Celulose – actively coping with CSR issues

Aracruz celulose paper mill.

Aracruz Celulose is one of the largest bleached eucalyptus wood pulp producers in the world. Since 1980, Aracruz' market share has increased from 16% to 29%. Most of the pulp produced is actually exported. As much as 95 % of the production is exported to markets in Europe (43%), Asia (20%) and Northern America (35%). Aracruz has facilities in Barra do Riacho and Guaiba. We had the opportunity to visit the Barra do Riacho unit in Espirito Santo which has the capacity to produce 2.1 million tons of pulp per year. Eucalyptus trees have short fibers which are ideal for making soft tissue paper. The pulp produced by Aracruz is then further used for finer paper types such as tissue paper, specialty paper, printing and writing paper.

The company has approximately 260 000 hectares of land in different areas in the south eastern part of Brazil. These areas include own eucalyptus plantations and native forest reserves in the four states; Espirito Santo, Bahia, Rio Grande do Sul and Mina Gerais (1 ha of reserves to 2 ha of plantations). In addition, they also use trees from partnerships formed with local partners in 145 municipalities which sum up to 80 000 ha. Aracruz is today self sufficient with raw materials from its own plantations and partnerships. The forests consist of a specially developed eucalyptus trees that is adaptable to many different types of soils and climates. Another major advantage of the eucalyptus tree in use is that it is fully grown after seven years. However, research on demand and supply of wood products indicate that there will be a lack of wood supply in the near future.

Aracruz also has a port "Portocel" in close proximity to the mill in Barra do Riacho, which handles cargo even from other producers in the area. This makes the transportation of finished pulp easier and more efficient.

Corporate responsibility

In Norway we mostly hear about the disagreements between Aracruz and various stakeholders, particularly the native Indian population. Of course these are major problems, which the company also admits. However, we think it is important to focus on the positive initiatives made by the company as well, since this information is often not provided to the public.

Aracruz is one of many companies in the pulp and paper industry that are highly involved in the dialogue to preserve and regenerate the "Atlantic Forest". As a result of higher environmental awareness, Aracruz is committed to achieve a good ecological sustainability, for example by planting native forest around the eucalyptus trees to preserve the environment. Planting is conducted as a mosaic pattern with 2/3 eucalyptus trees and 1/3 natural Atlantic forest. This reduces the pressure on tropical forests and aims at protecting the survival of the vast variety of trees naturally growing in this area.

Aracruz is taking part in a number of environmental programs. They are one of the key partners in the Bio Atlantica organization that sets out to preserve the valuable Atlantic forest. The company was also the first South American firm to voluntarily cut down emissions and to join the Chicago Climate Exchange (CCX). Aracruz has also been listed on the Dow Jones Sustainability Index for the second year in a row (2005 and 2006), and is one of only six Brazilian firms listed in 2006.

The Aracruz mills supply more than 2000 jobs directly and about 8000 indirectly through outsourcing agreements. The lowest salary at the company is twice the minimum wage, which assures that the workers have a better foundation. In fact, Aracruz has been elected one of the most attractive companies to work for in Brazil.

In addition to the jobs created directly linked to the pulp production itself, there several related industries positively affected by the presence of Aracruz. These include logistic services, the plant nursery that Aracruz cooperates with, as well as the firms performing the cutting and preparation of trees. Since the mills supply a large number of jobs related to the pulp industry and the entire value chain, service related jobs such as dentists and doctors will also be needed.

Research

In order to remain competitive it is important to continuously improve the quality and the characteristics of the trees. Aracruz is highly involved in research, for example related to cloning and breeding. The nursery, which is located near the Barra do Riacho mill produces the best suited seedlings by using special techniques and a careful selection process. This process is closely related to the Aracruz research centre which is continuously working to create superior eucalyptus trees. The goal is to take an active part in creating the most productive tree type, one that grows faster and is more resistant to diseases. By using the best technology available it is possible to get better results and a maximum use of the eucalyptus.

References:
Meeting and a presentation held by Aracruz representatives in January 2007.
The annual report of Aracruz Celulose, 2005
Homepage of Aracruz: www.aracruz.com.br

International business Brazil receiving information about the nursery process of eucalyptus plants.

2.4 Agriculture

Natural resources

Brazil is endowed with vast agricultural resources. There are two distinct agricultural areas. The first, comprised of the southern part of the country, has a semi-temperate climate and higher rainfall, the better soils, higher technology and input use, adequate infrastructure, and more experienced farmers. It produces most of Brazil's grains and oil seeds and export crops. The other, located in the drought-ridden northeast region and in the Amazon basin, lacks well-distributed rainfall, good soil, adequate infrastructure, and sufficient development capital. Although mostly occupied by subsistence farmers, the latter regions are increasingly important as exporters of forest products, cocoa, and tropical fruits. Central Brazil contains substantial areas of grassland with only scattered trees. The Brazilian grasslands are less fertile than those of North America and are generally more suited for grazing

Importance of agriculture

During the dictatorship period, agriculture was neglected and exploited as a means of resources for the industry sector and cheap food for the urban population. Until late 1980s export and prices were controlled, with quotas on exports. This has changed since the early 1990s. Brazilian agriculture is well diversified, and the country is largely self-sufficient in food. Agriculture accounts for 10% of the country's GDP, and employs approximately one-quarter of the labor force in more than 6 million agricultural enterprises. Brazil is the world's largest producer of sugarcane, oranges and coffee, and a net exporter of cocoa, soybeans, orange juice, tobacco, forest products, and other tropical fruits and nuts. Livestock production is important in many parts of the country, with rapid growth in the poultry, pork, and milk industries reflecting changes in consumer tastes. On a value basis, production is 60% field crop and 40% livestock. Brazil is a net exporter of agricultural and food products, which account for some 40% of the country's exports.


Growth Initiativo: Brazil

Brazil: a top ranked producer and exporter of several main food products

Crop	Production	Export
Soya	2°	1°
Corn	3°	–
Sugarcane	1°	1°
Coffee	1°	1°
Cotton	–	3°
Orange	1°	1°
Meat	3°	1°
Poultry	2°	1°
Tobacco	2°	1°

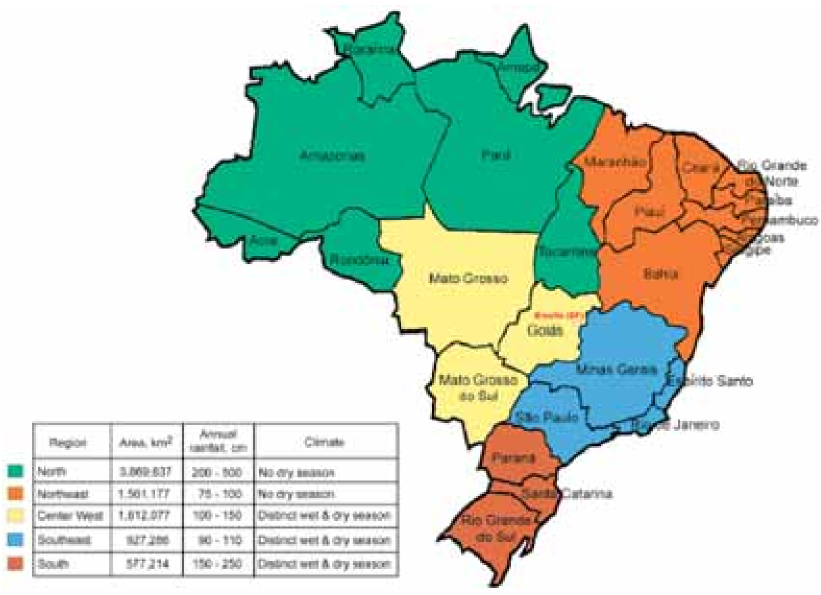
Source: FAO, MB Associatus

Coffee

Brazil is the world's leading producer of coffee; this was the nation's most important single export in the early and mid-20th century. Minas Gerais and Espírito Santo are the principal coffee-producing states, followed by São Paulo and Paraná.

COFFEE: Main Producers (KT)	
Brazil	2 179
Vietnam	990
Indonesia	762
Colombia	682
Mexico	311
World	**7 718**

Sources: FAO, 2005



Region	Area, km²	Annual rainfall, cm	Climate
North	3.869.637	200 - 500	No dry season
Northeast	1.561.177	75 - 100	No dry season
Center West	1.612.077	100 - 150	Distinct wet & dry season
Southeast	927.286	90 - 110	Distinct wet & dry season
South	577.214	150 - 250	Distinct wet & dry season

Figure 1 - The regions, area, and general climate of Brazil. Adapted from FAO (2005).

Soybeans

In the 1990s soybeans and their derivative products, particularly animal feeds, became an increasingly more valuable source of revenue compared to coffee. Most of the country's soybeans are grown in Paraná and Rio Grande do Sul; Mato Grosso do Sul state has also become a leading producer, since farmers in this area have increased their use of machinery and fertilizers to work the savanna soils.

SOYBEANS: Main Producers (KT)	
USA	85 741
Brazil	50 195
Argentina	38 300
China	16 900
India	6 600
World	**209 976**
Sources: FAO, 2005	

Oranges

Almost one-third of the world's oranges are grown in Brazil—more than twice the amount produced in the United States, which is the world's second major supplier.

ORANGES: Main Producers (KT)	
Brazil	17 805
USA	8 266
Mexico	3 970
India	3 100
Italy	2 534
World	**59 905**
Sources: FAO, 2005	

Livestock

Brazil has one of the world's largest livestock populations (at more than 200 million) and slaughters more cattle annually than the United States. The most extensive grazing lands are concentrated in the South and Southeast, with a smaller but increasing share in northern states and frontier zones, such as Amazonia. The meatpacking industry's principal operations are in Rio Grande do Sul, the state closest to the beef-producing plains of Uruguay and Argentina. Brazil produces great quantities of poultry as well; both poultry and meat are important exports.

Sugarcane

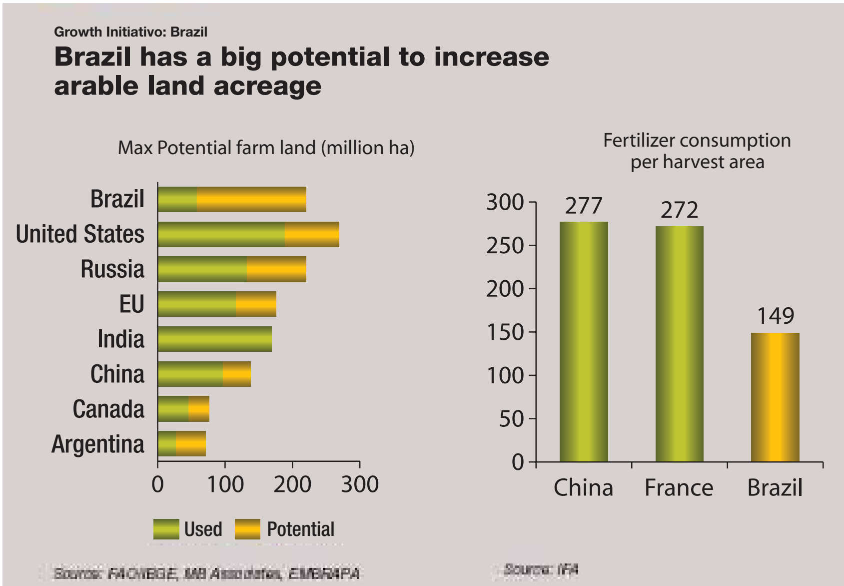
Brazil is by far the world's largest producer of sugarcane. Uses of sugar cane include the production of sugar, Falernum, molasses, rum, cachaça (the national spirit of Brazil) and ethanol for fuel. The bagasse that remains after sugarcane crushing is used to provide heat energy, used in the mill, and electricity, which is typically on-sold to the consumer electricity grid.

SUGARCANE: Main Producers (KT)	
BBrazil	420 121
India	232 320
China	88 730
Thailand	49 572
Pakistan	47 244
World	1 289 820
Sources: FAO, 2005	

Promising market for fertilizers

Brazil has been among the fastest growing fertilizer markets in the world, with an average annual growth rate of 6 percent during the last ten years. The country has great growth potential within agriculture, as it is one of the few countries in the world with plenty of unexploited arable land. Brazil imports approximately 60 percent of its fertilizer consumption. Moreover, the Brazilian fertilizer industry is still relatively fragmented with many small and medium sized companies. Fertilizer consumption is forecasted to reach 30 million tons by 2014 from approximately 20 million tons today.

In Brazil, fertilizer consumption and grain production have increased by almost 60 percent over the past decade, while crop acreage has increased by only 25 percent. Upward pressure on wheat, corn and soybean prices improves fertilizer demand prospects for 2007. Reduced grain stocks, coupled with an improved demand outlook for biofuels, are the main drivers for increased grain prices. Soybean pricing reflects an expectation that growers will switch to grains during the upcoming planting season. Fertilizer application per ha in Brazil is approximately 45 % less than in France and China, with a significant scope for improvement in productivity. Expressed in nutrient terms, fertilizer consumption in Brazil amounts to roughly a quarter of Chinese consumption and one-half of US consumption.



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NationsEncyclopedia: “Brazil, Agriculture” (www.nationsencyclopedia.com)
Britannica: “Brazil’s agriculture” (www.britannica.com)
Yara: “Promising Brazilian market” (www.yara.com)
Yara: “Growth in Brazil” (www.yara.com)

Workers harvesting sugarcane, Ribeirão Preto in Sao Paulo. (Photo: WorldBank.org)

2.5 Biofuels

"The Brazilian agricultural sector is very interesting, especially the opportunities related towards ethanol and biofuels", says Karl Petter Berg, CFO at Norse Energy do Brazil.

Biofuels are defined as any fuel evolved from biomass. It is a renewable source, unlike other natural resources such as petroleum, coal and nuclear fuels. In the seventies, problems arose after the 1970s oil shock. The government then began its pro-alcohol campaign as an alternative fuel for cars. Ethanol driven cars have been on the Brazilian market for 25 years, however experienced a renaissance in 2003 when the first "flex-power" vehicles appeared. Vehicles run on a combination of ethanol, petrol or gas, so called "flex-power" vehicles. Today, these types of cars make up for 77 % of the Brazilian market. The popularity increased thanks to a combination of new technology and a reduced tax of 2 %. In late 2006, the demand for biodiesel reached 800 million liters.

As governments realize that oil is a finite commodity, bio fuel attracts more attention around the world. This environmental friendly fuel could be the answer to a possible oil crisis, but there are some risks involved in increased production. Among the risks is the "battle" between food and fuel crops. Some argue crops harvested for fuel should be used as food instead, and others claim that there will not be enough arable land to cover both needs in the future.

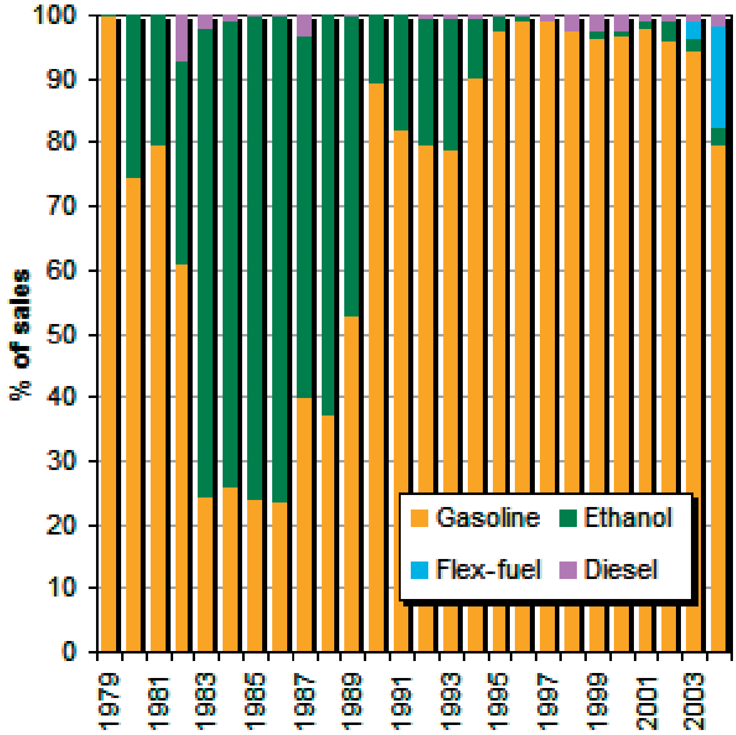
In Brazil they use sugar canes to make ethanol. Ethanol powers vehicles as adequate substitute for petrol. You can also use other materials to develop bio fuel. Other countries use soybeans, sugar beats, corn and palm oil. Regardless, they are all defined as biofuels.

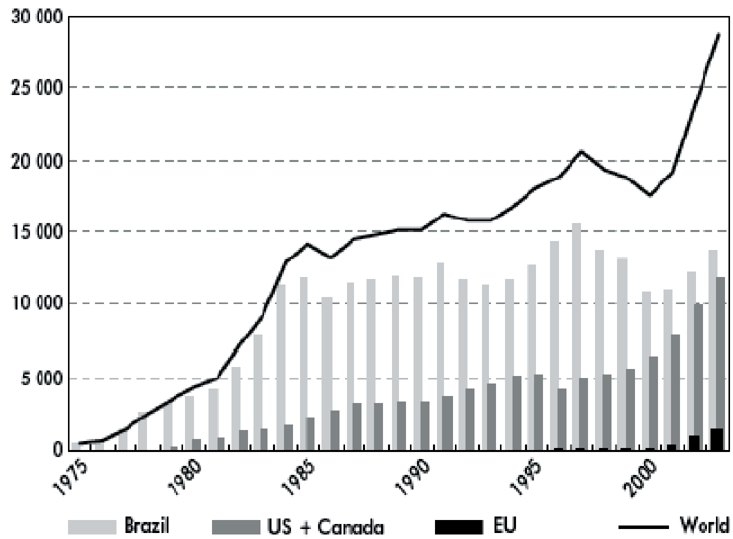
Making fuel from sugarcanes

Brazil is the world's largest sugar cane producer and one of the world's largest producers of biofuels. In 2005, half of the sugar cane crops were used for ethanol production, and half was used to produce sugar. Sugar canes consist of innards and shell. They extract the innards; thereafter use the shell to produce ethanol. Due to the large amount of biofuel produced, Brazil is currently considering exporting surplus stock to Japan and China.

Potential risks

If Brazil is to increase ethanol productions they also need to expand areas for cultivating sugar canes. The areas most eligible for cultivating sugar canes are in the Amazon basin. Evolving these fragile wildlife reserves will pose a major threat to plant and animal diversity.





World and regional fuel ethanol production (million litres per year). Source: www.zero.no

Trends in the market

USA is nowadays bull towards the ethanol market. Farmers develop production facilities and areas to increase cultivation. Biofuels from soybeans is a niche that North American farmer's focus on.

USA has a great influence on the world's social economy. Nations tend to look at USA as an initiator for different measures. We can only wait and see whether Brazil and the rest of the world will follow US on the growing market for biofuels. US production is growing at an alarming rate. Production is expected

to exceed 750 million gallons a year in 2007. The demand has grown so fast that the 70 or so production facilities barely are able to keep up. To serve this demand, about 50 new plants are under construction, and expected to start producing in late 2007 and early 2008. Brazil will derive great advantage if the US pace keeps up. Due to US influence, other nations will most likely follow. This will give Brazil huge export potential across the globe.

"The global market for biodiesel is poised for explosive growth in the next ten years. Although Europe currently represents 90 % of global biodiesel consumption and production, the U.S. is now ramping up production at a faster rate than Europe, and Brazil is expected to surpass U.S. and European biodiesel production by the year 2015," says William Thurmond, Author of Biodiesel 2020 and director of Management consulting at Emerging Markets Online. "It is possible that biodiesel could represent as much ass 20 % of all on-road diesel used in Brazil, Europe, China and India by the year 2020," William Thurmond continues

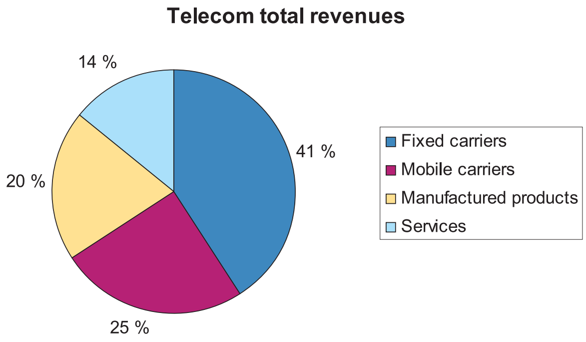
If governments continue to aggressively pursue targets; enact investor-friendly tax incentives for production and blending; and help to promote research & development in new biodiesel feedstock's, the prospects for biodiesel may become realized faster than anticipated.

References:
"Bio Diesel 2020", by the company Emerging Markets, author William Thurmond.
"Security Watch", (www.isn.ethz.ch)
"BBC News", by Robert Plummer, BBC News reporter
"YaleGlobalOnline"

2.6 Telecommunication

General overview

With around 35% of the regions revenue, the Brazilian telecom market remains the largest in Latin America. It has enjoyed a period of outstanding growth since mid-2003, thanks to a booming mobile and broadband market. At the same time, local fixed-line telephony stagnates despite low tele-density. As in most other Latin American countries and in spite of government efforts, Brazil's fixed lines are still dominated by the remainders of the former state monopoly in their respective regions. Telecommunications accounts for approximately 4% of GDP.



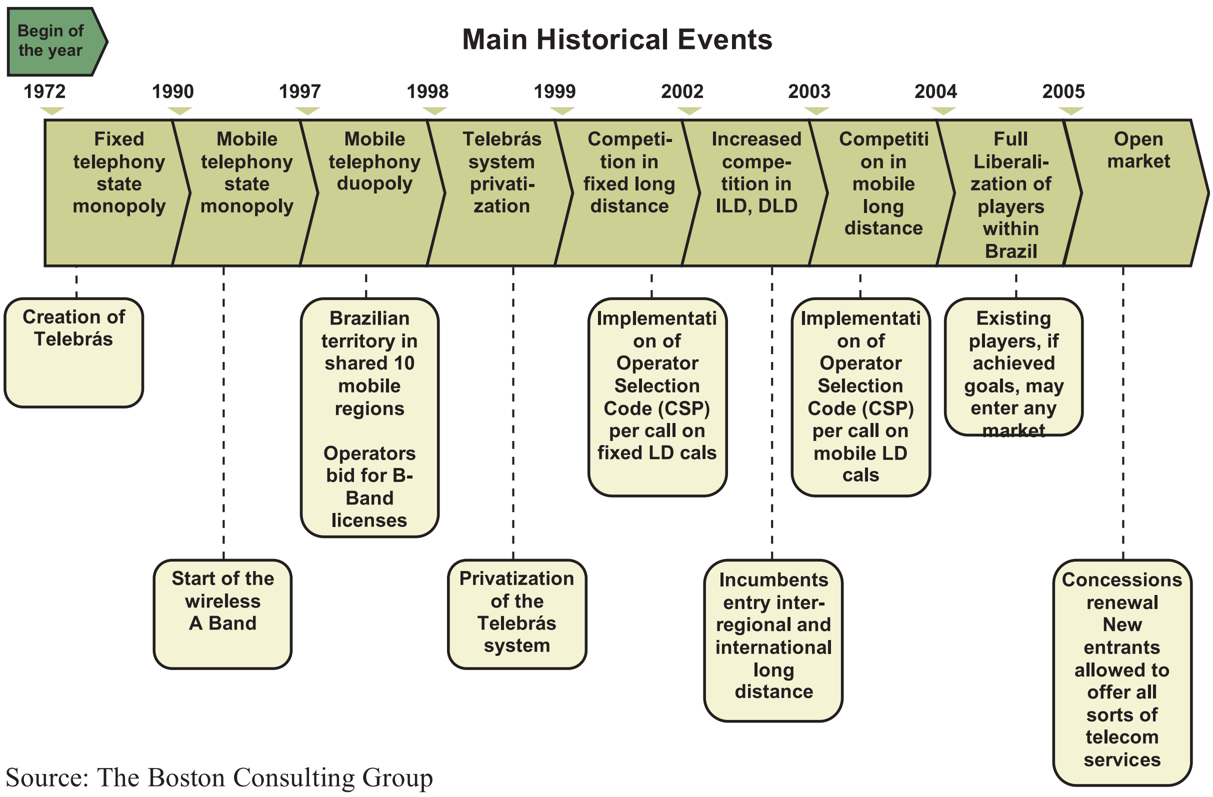
Source: The US Commercial service

As a result of the size of the country, major telecom infrastructure companies have seen opportunities in Brazil. Motorola, Nokia, Cisco and Nortel all have manufacturing facilities in the country, resulting in one of the region's best telecom infrastructures.

The Brazilian telecommunications industry has changed significantly since early 1998. Back then, the state-owned Telebras acted as a holding company for 28 operating companies: One long-distance operator (Embratel) and 27 companies which provided local, inter-state long-distance, and mobile communications services at the state level. Four independent telephone companies provided services outside the Telebras system, in specific geographical areas, accounting for 9% of all lines in service.

As mentioned, fixed-line telephony has been stagnant and even decreasing in density, losing customers to mobile telephony. At the same time, higher income households disconnect narrowband lines in favor of a broadband connection. Voice over Internet Protocol (VoIP) services are growing ever more popular, accounting for around 36% of Brazil's international calls.

The Brazilian telecommunication market has changed drastically in the past years



Source: The Boston Consulting Group

Opportunities

The Brazilian telecom market may be considered among the markets in the world with the largest potential for growth, mainly due to the large population and the growing income rate per capita. When the market was deregulated at the end of the 1990s, many large international companies established in the country with high beliefs of huge profits. However, this was not as easy as many thought, and several international companies lost large sums. Nowadays, most of the telecom companies in Brazil are incumbents.

The Brazilian telecom market is also far behind when it comes to technology. GSM was first established in 2001-2002, and 3G licenses have yet to be auctioned out, as of 2007. Short Messaging Services was introduced to Brazilian consumers in 2000. This is mostly because of the heavy investment cost in such a large country.

For Norwegian companies, the greatest opportunities are in services surrounding a telecom operator. For example, mobile data services, mobile content, billing routines and Internet based accounts. Norway has developed an advanced technology, and the systems widely used in Brazil today are very bureaucratic, slow and complex. Also, there is expected a significant increase in wireless data applications as GSM continues to win market shares.

Also, Norwegian technology for infrastructure could be exported to Brazil on a greater scale than done today. The infrastructure is rapidly developing, and new solutions to cut costs around maintenance of the large infrastructural network are very sought for. In 2005, Brazil's import market for telecommunication equipment reached an impressive US$ 2.2 billion, the US and Southeast Asia being the largest participants, controlling almost 70% of the market.

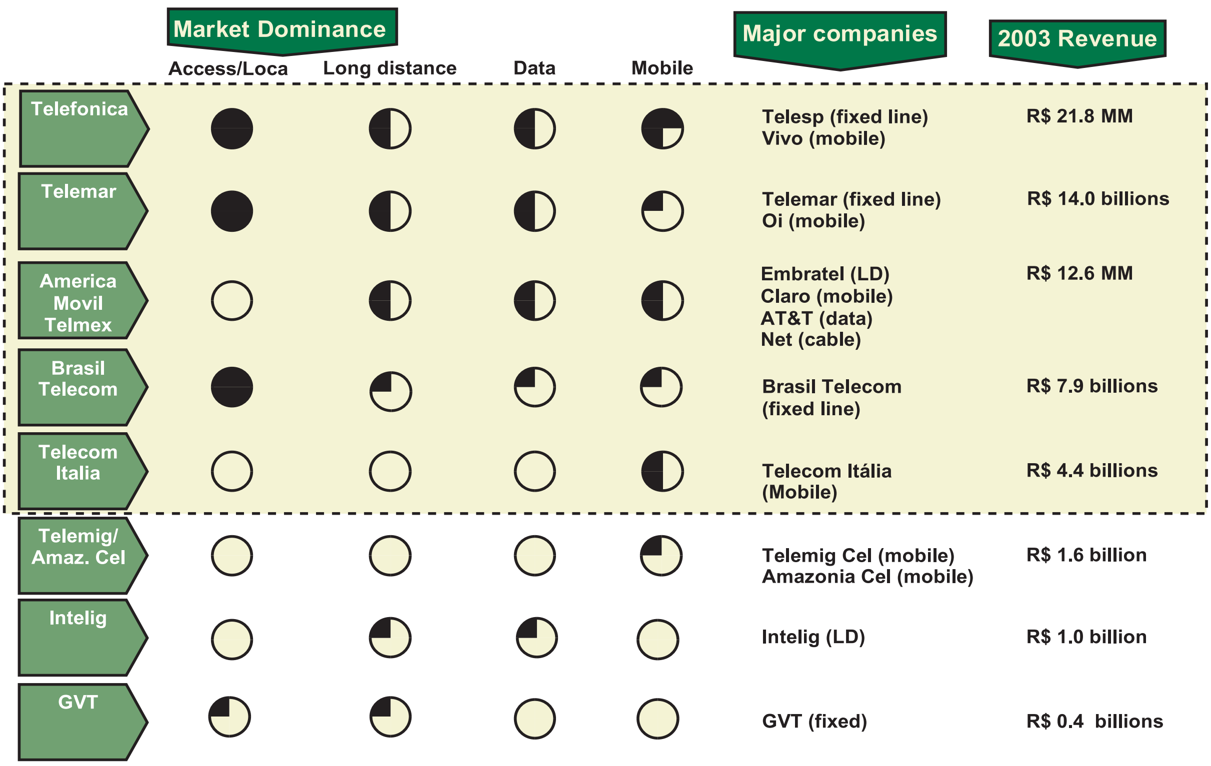
As everywhere else in the world, convergence is on everybody's lips in Brazil. However, they are still far behind Europe and the US on this area.

Challenges

As mentioned above, if one only looks at the numbers, Brazil's telecom market should be one of the most prosperous markets in the world. However, one of the problems is that it is already late to establish, the market is full and dominated by a small number of groups. This goes to the number of cell phone operators and fixed line operators. At the same time, expanding the infrastructure in the country is very expensive because of the vast distances and challenging geography. On the other hand, where it is easier it has already been built.

At the same time the government agency regulating the private market, Anatel, is being described

Brazilian telecom market dominated by 4-5 groups



Source: companies' press releases, teleco.com.br, Boston Consulting Group analysis

as a challenge, as they lack any clarity in respect of regulations for new areas of interest. This makes large investments very risky. For example, US companies invested more than one billion US dollars in developing the CDMA network in Brazil. Then suddenly came regulations that clearly favored the GSM network, and the large investment is at risk.

Anatel

Brazil is divided into four regions for fixed telephony, with the government agency Anatel regulating the private market. Its main objective is to guard the contracts. This means, they withdraw concessions when operators fail to fulfill their obligations, as was the case with many international companies at the start of this millennium.

Anatel may propose changes to the structure of the telecom sector, but congress must acknowledge the changes. Anatel is protected by law, and cannot be dismissed from office.

Mobile sector

The mobile sector was opened to competition in 1997, when companies were licensed to provide cellular services in competition with the Telebras network. Some new companies established in the existing A band, which had existed since 1990. The concessionaires operating in the new B band, however, had to build up an entire new cellular system and infrastructure. As the large costs of the concessions came in addition to the developing costs, this put pressure on the new companies to create substantial revenue fast, and resulted in a very rapid development of the system. The privatization was one of the largest privatizations in the world.

In terms of subscribers, Brazil's mobile market is the fifth largest in the world, behind China, USA, Japan, and Russia. In 2003, there were 25 million cellular phones in Brazil. In 2006 the number had jumped to 100 million, and increasing amounts of consumers exchange their fixed-line telephone with a cell phone. Yet, although Brazil holds more than one third of all the mobile users in Latin America, its mobile penetration trails Chile, Colombia, Argentina, Panama, Venezuela, and most of the Caribbean. GSM subscribers increased by an incredible 227% in 2004, and continued to grow by 99% in 2005 and 63% in 2006; CDMA increased at the steadier pace of 39% in 2004 and 23% in 2005, and began to show negative growth during the first six months of 2006. TDMA, on the other hand, has been declining since 2004, and AMPS is gradually disappearing.

Brazil's mobile phone market is highly competitive, and one of the most rapidly growing in the world. Brazil has eight mobile operators, of which four hold more than 90% of the market. Vivo (a 50:50 joint venture between Telefónica and Portugal Telecom) is the leading player with almost 40% of the market. However, it is losing market share to TIM Brasil (Telecom Italia Mobile), Claro (América Móvil), and Oi (Telemar). In an effort to win back the declining market share, Vivo opted in mid-2006 to overlay its CDMA network with GSM technology. Vivo is the only non-GSM operator in Brazil, where GSM has taken over as the system preferred by the vast majority of users.

A peculiarity of the Brazilian mobile phone market is that most of the users have a prepaid mobile handset. 81% of the users had a prepaid phone in 2005, up from 79% in 2004 and 74% in 2003.

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2.7 Seafood and aquaculture

Clipfish export to Brazil

History

Norway has exported clipfish to Brazil for 160 years. The Norwegian clipfish, or Bacalhau de Noruega which is the Brazilian name of the Norwegian dried and salted fish (originally cod), were introduced to Brazil by the Portuguese. Brazil received the first cargo of Norwegian clipfish in 1843. Since then, Brazil has been a very important market for Norwegian clipfish. Initially, clipfish worked as medium of payment for Brazilian coffee. Beside Portugal, Brazil is the biggest importer of Norwegian clipfish.

Utility value for Brazilians

Clipfish has for several years been part of Brazilian history, culture and food traditions. The clipfish is the main ingredient in the well-known bacalao courses. It is said to be more than 1000 bacalao courses, and a Portuguese woman is expected to be able to prepare as many as the number of days per year. Bacalao is usually served in connection with feasts and in special occurrences with family and friends. The clipfish courses have their peak season during Easter. This has relation to the Old Catholic requirements to the Lent ahead of the religious feasts. On some of the days during Lent, Catholics were allowed to eat fish. Lent has for a long time been of vital importance for the Brazilian consume of clipfish, and is crucial to the place of clipfish in Brazilian traditions.

Figures and features of today's clipfish export

Clipfish constitutes 98% of Norway's fish export to Brazil. Nearly 60% of the total Norwegian goods exported to Brazil is clipfish. Brazil is responsible for 30% of the total Norwegian clipfish export. Norway has a market share of approx 90% of the Brazilian clipfish consumption. Other nations with clipfish export to Brazil are Portugal and Iceland. An average Brazilian eats 200 grams of clipfish each year. The Norwegian export to Brazil showed a growth of 11% in volume between 2005 and 2006. It should be mentioned that Brazil's total import was reduced during the same period. 2006 has been a very good year for the industry exporting clipfish to Brazil. Norwegian export was 27 540 tons, with a value of NOK 1 020 million. Brazil is a growing market, higher demands for Norwegian clipfish has been observed outside the feasts as well. This is due to increased purchasing power in Brazil. The minimum wage has shown a considerable increase in the last couple of years. In the same period, Brazil has achieved economic growth and a relatively steady political situation.

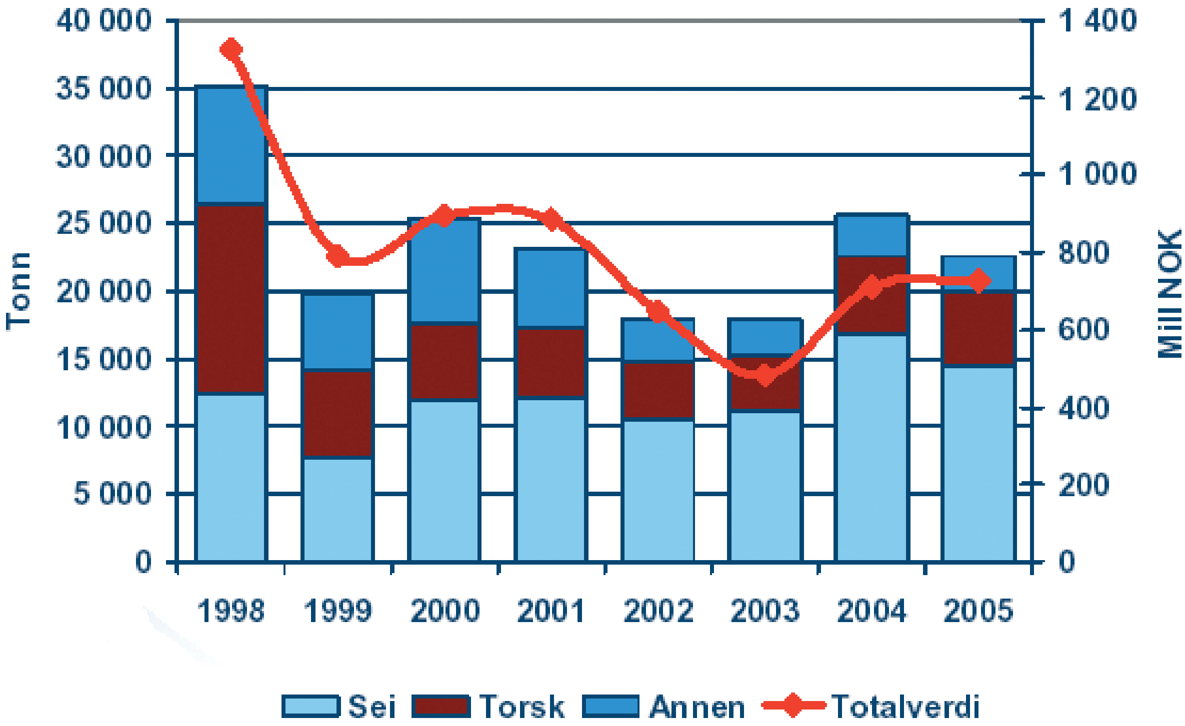
Brazil is the most important export market for clipfish of pollack. Clipfish of pollack constitutes 2/3 of the total Brazilian clipfish consumption. It is cheaper than the original clipfish, which is made of cod. The most common way to export clipfish to Brazil is through local agents. It is obvious that the importers have to profit on the import of clipfish, but there have been some unfortunate incidents with unreliable agents. Better supervision by the authorities regarding economic scams and tax fraud has eliminated unreliable agents and provided equal competition, giving the honest participants improved earnings. It exists considerable fees on export of Norwegian clipfish to Brazil. The total amount of import duties and fees constitutes close to 20% of the cargo value.

Future prospects

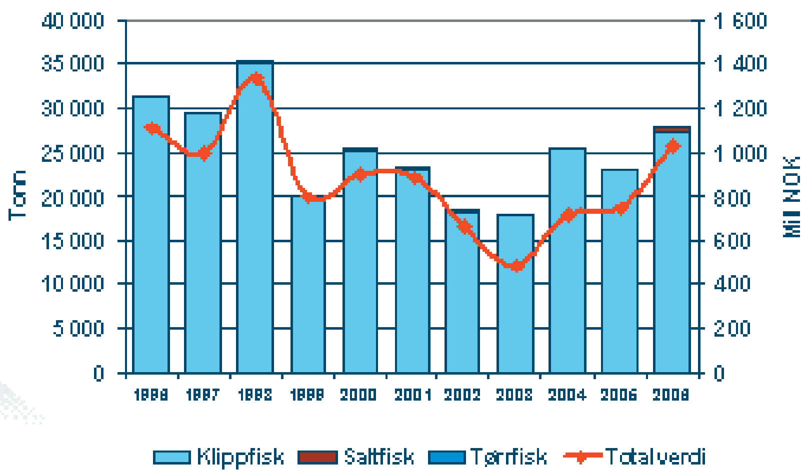
The Brazilian clipfish market is maybe the only market with a potential for considerable growth in consume. Nearly 190 million Brazilians love Norwegian clipfish, but only 20% of the population can afford to buy clipfish today. But with higher purchasing power of the population in general, more Brazilians are expected to obtain the necessary resources to buy clipfish. The Brazilian middle class is increasing, hopefully in favor of future Norwegian clipfish export.

Today, Norwegian clipfish is only sold in and around the large Brazilian cities. Considerable consumer groups in the Brazilian inland and along the northeast coast are not reached sufficiently. These areas have a great potential, and a lower level of investment costs than the southern part of Brazil. Higher market coverage in northeast, which has around 48 millions inhabitants, might be favorable for exporting clipfish of pollack as well. While clipfish of pollack is relatively unknown in Norway and Portugal, the north-eastern part of Brazil has a tradition of using the pollack in the clipfish courses. This region is highly influenced by African food traditions, with the use of spices and strong taste ingredients. The pollack, with its strong taste of fish, is therefore preferred.

The internet creates a possibility to communicate with considerable parts of the Brazilian population. This communication is cost-effective. Today, 35 million Brazilians use the internet frequently, and they are world leading when it comes to how much they use the internet in their daily life. The number of Brazilians with access to the internet is assumed to grow in the following years.



Norwegian exports to Brazil



Case study 2.71: The Norwegian Seafood Export Council(Eksportutvalget for fisk)

The Norwegian Seafood Export Council (NSEC) markets Norwegian Seafood all over the world, on behalf of the Norwegian fishery industry. The goal of its operations is to increase the interest for and awareness of Norwegian seafood in Norway and the rest of the world. The fisheries industry is financing NSEC through fees on export of Norwegian fish and seafood.

The NSEC's operations are concentrated around four activities:

- Common marketing: The marketing operations' objective is to increase the demand for Norwegian seafood. NSEC promotes all Norwegian seafood products that the industry finds important to focus on.
- Market information: NSEC is the industry's source to statistic and trade information about Norwegian seafood. NSEC is also responsible for monitoring the international seafood market.
- Market access: NSEC secure Norwegian fishery industry the same competitive conditions and the same access to central markets as their competitors. In addition, they offer advisory services to the Norwegian exporters of seafood.
- Public relations and information: NSEC is supposed to contribute to the fishery industry's reputation by active information dissemination and good communication with media. NSEC's homepage (www.seafood.no) makes the availability to information easier for exporters, media, as well as consumers.

NSEC's office in Rio

The NSEC has one office in South America, located in Rio de Janeiro. The Rio office is responsible for promoting Norwegian seafood in general and Norwegian clipfish in particular, in Brazil. In order to increase the Brazilian import of Norwegian clipfish, NSEC is organizing marketing campaigns to profile Norwegian clipfish.

NSEC has promoted Norwegian clipfish in about 500 supermarkets, with emphasis on the areas in and around the cities of Rio de Janeiro, Sao Paulo, Salvador and Recife. They have an agreement with all the large grocery chains in Brazil. NSEC promotes the clipfish by handing out advertising materials and recipes which includes clipfish. 120 salespeople have been employed to sell the clipfish in the supermarkets and to distribute clipfish recipes. NSEC has trained the salespeople to obtain the necessary knowledge of Norwegian clipfish.

NSEC has used the Brazilian TV-show "Mais Voce" to promote Norwegian clipfish. "Mais Voce" is a daily show which is seen by 4.5 million people. The famous TV-hostess Anna Maria Braga talked about Norwegian clipfish and prepared courses that included clipfish as ingredient. The viewers were requested to download recipes from NSEC's homepages.

Undoubtedly, the most extensive marketing campaign of Norwegian clipfish is the Carnival in February 2007. NSEC was contacted by the Dane Jens Olesen, who organized the H.C. Andersen Carnival in 2004, with the idea of making Norway and clipfish a topic for the 2007 Carnival. The knowledge of H.C. Andersen in Brazil rose to 70% during the Carnival, compared to 20% earlier. The Carnival is Brazil's most important cultural festivity. NSEC has used NOK 3 million on an agreement with the samba school Imperatriz Leopoldinense. The samba school will present Norway and clipfish during the Carnival. Imperatriz Leopoldinense is one of the 14 large samba schools in the 1st division in Rio de Janeiro, which all together form the well-known Carnival in Brazil. The samba schools represent different areas of Rio, and compete in how well they are able to present their topic through costumes, choreography and music. Imperatriz is one of the biggest and most famous samba schools, and has won the Carnival as best school nine times. The Carnival has 85-90 million viewers in Brazil and are covered by television in 125 countries, of which many of them are important markets for clipfish (among them Portugal). Worldwide, 3.2 billion people watch the Carnival. This event will be guaranteed to give the greatest media exposure that Norwegian clipfish has ever experienced in Brazil.

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Norwegian Seafood Export Council's homepage (www.seafood.no)

Case study 2.72: Mustad

O. Mustad & Son is the largest manufacturer and supplier of fish hooks worldwide with a market share of 25%. For more than 100 years, Mustad has been known as the world's largest manufacturer of fish hooks. They were one of the first companies that mechanized the hook production.

Mustad was established in Brazil in 1988, when they acquired a hook-manufacturing plant in Porto Alegre. One of the reasons for the acquisition was high Brazilian tariffs on imports, which were unfavorable for Mustad's competitiveness in Brazil. By acquiring a well known Brazilian hook manufacturer they obtained necessary local knowledge and qualified employees as well. Today, Mustad in Porto Alegre has around 90 employees.

The department in Porto Alegre distributes fishing tackle in Brazil. They distribute all Mustad sport fishing products in Brazil, together with a wide range of superior fishing tackle, which includes world famous brands such as Plano, ProCatch, ProLine and Maguro. Mustad is number 1 in hooks in Brazil, and has achieved a very strong market position. 300 million hooks are sold in Brazil per year. The yearly aggregated number of hooks sold worldwide is 10 billion.

In their early years, Mustad Brazil concentrated their distribution to only hooks. Today, they have their own production and distribution of rods, lines and other fishing equipments as well. They import rods from Paraguay and China, and lines from Germany and China. Mustad Brazil struggle to maintain their market share, in hard competition with manufacturers in China in particular, but also other developing countries with cheaper labor than Brazil.

Mustad Brazil sells directly to large distributors and stores. Earlier, one problem was that the salespeople in the stores, who are Mustad's contact with customers, did not have the necessary information and experience with the Mustad products. Subsequently, Mustad Brazil has implemented training of salespeople in order to give them more knowledge about the Mustad equipment.

References:
Meeting at Mustad Brazil, with Alexandre Mussi Fortes.
Mustad's homepage (www.mustad.no)

Macroeconomic factors might be of crucial importance when it comes to future growth in the clipfish export. A steady or stronger Real against US$ will be profitable for Norwegian exporters, but it is more likely that the Real will be gradually weaker against the US$ in the future. A stable or weaker NOK against US$ will be favorable to the competitiveness of Norwegian goods, but it is almost impossible to predict the future relative strength between these currencies. Economic growth and increased purchasing power will have a positive influence on future consume of clipfish.

SINTEF

Even though clipfish export to Brazil has favorable growth prospects, there exist certain warning signals in the economy and in the market. The changes in the exchange rates, which have a great influence on the competitiveness of Norwegian clipfish, are very uncertain and hard to predict. The Brazilian purchasing power is at the same level as in 1998, but the Norwegian clipfish export to Brazil is 10 000 tons lower today. The reason for this is still unknown. Brazil has in the last 20 years experienced political and economical crisis at regular intervals. Are the politics and the economy finally stabilized, so surprising crisis will not occur in the future?


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Aquaculture

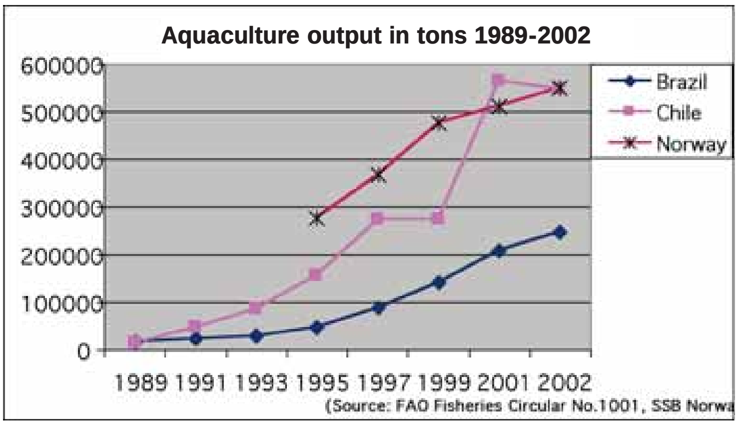
Brazil appears to be one of the countries in the world with the largest potential for aquaculture, mainly due to its favorable climate, freshwater resources and available coastline. The country possesses approximately 7 500 km of coastline and 12 percent of the world's total freshwater reserves. In addition, it has large unexploited areas suitable for aquaculture, and the largest mangrove forests in the world, which makes growth conditions for several species of fish good. This potential has earned Brazil the title of being "the last great frontier of aquaculture in the world" (Secretaria Especial de Aquicultura e Pesca, 2003).

General overview

Development of the Brazilian fish farming and aquaculture industry is relatively recent. Though fish farming has been practiced in Brazil since the 1940s, modern scientific aquaculture dates from the 1980s. At this time the technology of artificial reproduction for native fish species was developed. Species such as tilapia, carps and catfishes were introduced and feeding with pelleted feeds started. Today the potential of becoming a lucrative industry is not by far reached, and the attraction of large-scale investments is still fairly absent. The Brazilian aquaculture industry is quite fragmented, with most suppliers being small farmers. In 1998, it was estimated that approximately 100 000 farms occupied an area of 80 000 hectares. Currently there are no major players in this market.

Fisheries and aquaculture production accounted for some 0.4 percent of Brazil's national GDP around 2003, although if associated industries are included, the number rises to 2 percent. Aquaculture itself contributes to approx 5 percent of all national animal production.

Despite the current situation, Brazil is one of the dominant aquaculture producers in the Latin American and Caribbean Region. Brazil and Chile accounted for about 70 percent of the aquaculture output in the region, as of 2001. The region's share of global aquaculture value was 7.1 percent in 2001 (Brazil 0.6 percent), worth approx four billion dollars. This indicates that the species produced in this region tend to be of high value. Brazil's total aquaculture output rose by an impressive average of 24% each year between 1990 and 2000. The 2002 production reached 246 183 tons. In comparison, Chile's output was 545 655, while Norway stopped at 550 209.



Production sites and main species cultivated

The main aquaculture production sites in Brazil are found widespread over most of the country. The fish farmers in the south of the country tend to be less fragmented than several of the ones in the north and north-east, as well as being more directed towards productions of economies of scale. The largely fragmented industry, particularly characteristic to the northern parts of the country, can partly be explained by the fact that people keep fish farms in addition to traditional farming

Marine sector

The marine sector and the freshwater fish sector makes up for most of the aquaculture industry in Brazil. Within the marine sector shrimps, mainly Pacific white shrimp, is the dominant species to be produced along the coast of Brazil. The shrimp farming sector was growing at fairly high rates in the late 1990s and early 2000s until it was hit by a number of disease problems a few years ago. Today, the shrimp producers face some struggles because of bad reputations. In addition, the attempts of expanding the shrimp farming sector has suffered from exporting problems because of antidumping tariffs by the US, and an unfavorable fiscal policy by the Brazilian government in order to strengthen the local currency.

The sector is slowly recovering and further growth is expected in the future, despite direct accusations of breaking the laws and abusing resources. According to Felipe Suplicy, Coordinator at the Brazilian Department of Aquaculture and Fishery (SEAP), UN and WWF has been engaged in the problems concerning shrimp farming. Important actions must be conducted to solve the shrimp production problems in Brazil. These include thorough planning of the industry, educating and training of shrimp producers, and establishing a well-functioning certification system. The problems of the shrimp industry need to be taken care of in order to attract investors. As long as things are not sorted out, the full potential of the shrimp farming sector will not be utilized.

Freshwater sector

Freshwater aquaculture in Brazil is growing at a relatively high rate these days. The country produces an estimated 200 000 tons of freshwater fishes through aquaculture. Major species include Tilapia, Tambaqui and various exotic catfishes. Tilapia is by many expected to become the most important fish species to the export market in the future.

The freshwater fish sector will continue to grow in Brazil as consumers in the large, coastal cities of Brazil begin realizing that freshwater fish such as tilapia are tasty and can be bought alive or fresh in supermarkets. Fish caught from the sea and rivers are constrained by supply problems, and have become highly expensive. Brazil has a number of hydroelectric projects that provide water for raising freshwater fish in cages as well. Also, unlike shrimp farming, freshwater fish farming is perceived to be environmentally friendly, and as an employment generating enterprise for the rural poor.

Fish feed

In addition to the marine and freshwater farming, there is the market of fish feed. This is a market of quite a potential as well, and Brazil is already one of the major fish feed producers in the world. There are about 15 feed mills producing shrimp feed in Brazil. The country has an estimated shrimp feed manufacturing capacity of 150 000 tons per year. Currently it produces 80 000-90 000 tons of shrimp feeds.

In total, there are about 30 small and large fish feed mills in Brazil. The country has an estimated capacity of producing 300 000 tons of extruded fish feed per year. An estimated 200 000 tons of fish feeds are produced.

Obstacles

The current situation in the aquaculture sector is characterized by several crucial obstacles to overcome. We met with Felipe Suplicy Coordinator at SEAP, who gave us a brief orientation of the situation on hand. SEAP was created by President Lula in 2003, and was assumed to be a milestone for the aquaculture sector. For the first time in history, the industry was represented at Ministerial level. The industry has experienced a period of improved organization and development, and investors have been waiting for an establishment of clear rules for lease permit and environmental licensing.

Some of the requirements that must be fulfilled to get a license for fish farming include:

- Information about the waters you are producing in (e.g. coordinates)
- Total area occupied for production
- Dilution area
- Structure / organizing
- Environmental information
- Localization

However, farmers in the aquaculture industry face problems of obtaining the environmental licenses and lease permits necessary to produce within legal terms. Some of the reason to this is simply found in the combination of bureaucracy with fishers who have reading and writing disabilities. They are not capable of providing all the information needed to apply for an authorization. Despite this, several farmers are operating anyway without being registered by the authorities. The production tends to be huge, but much of it is illegal because of the lack of authorization. This makes the situation complex. Another consequence of the difficulties in obtaining licenses and lease permits is that banks don't give loans to fish farmers who lack the authorization needed.

The main reasons to the problem of getting authorized by the governments, lays in slow bureaucratic processes and governmental inefficiency. This is among others caused by IBAMA (Instituto Brasileiro do Medio Ambiente), which is a governmental organization with the objective of bringing the processes of development of natural resources and environmental conservation together. It has a responsibility towards the aquaculture industry concerning environmental issues, among this the environmental licenses required for fish farmers to receive governmental authorization. However, this organization is ill-equipped in terms of workforce and infrastructure facilities to undertake development and planning of the aquaculture sector on a national

level. Despite this, IBAMA is responsible for stimulating the growth of aquaculture and establishing regulations for the exploitation of aquatic resources.

According to Felipe Suplicy, there are major conflicts existing between SEAP and IBAMA, partly due to the problems IBAMA create concerning environmental licenses. It may take as much as 2-3 years for a fish farm application to be processed by all involved parts of the governments, and it is obvious that fish farmers are impatient to wait that long to start up their business. As of January 2007, there were 1300 registered applications from companies who wanted to start up fish farms. Approximately 1% of the applications dealt with foreign companies.

Despite significant signs of governmental inefficiency, there is a lack of political will to solve the problem of environmental aquaculture licenses. Aquaculture does not seem to be an area of main priority for the government at the moment, and the aquaculture department struggle to get necessary approvals from the President and the Parliament.

Potential

There is no doubt of the great potential concerning investments and profitability within the Brazilian aquaculture sector. Labor costs connected to the industry are cheap, natural resources are rich, species, temperature and areas are good. According to Suplicy, a fulfilled potential of the aquaculture sector would create some 3 million jobs and 12 million indirect new jobs. The potential of major growth in output of the Brazilian culture is quite large, given its large unexploited resources and a possible restructuring of the industry in the future.

However, there is still a long way to go until the sector will be more than promising. The government must display commitment to the aquaculture industry, and contribute in making the bureaucratic processes less long-lasting. At the same time, a visible set of requirements and rules must be exercised to secure evident constraints concerning the industry. This is important in order to incorporate structure in the industry, and thus attract domestic and foreign investors.

Felipe Suplicy also told us about some areas within the Brazilian aquaculture which should be of great potential to Norwegian actors. One is the potential for fish farming of Cobia, a marine carnivorous fish that are capable of growing at a rate of 5 – 7 kg/year. The fish possesses features that make it an ideal candidate for intensive aquafarming. The Cobia's wide geographical distribution and high market value (approx 6$/kg) give it a unique opportunity to be a successful farmed species.

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Ação Comunitária

Ação Comunitária do Brasil do Rio de Janeiro

Some of our members were privileged to visit Ação Comunitária in Rio de Janeiro and see the importance of their work. In case of a project surplus, International Business Brazil has decided to endow the remaining money to this organization, and we will highly recommend Norwegian companies and individuals to support the organization's work as well. To obtain insight in their work, please read the following information about Ação Comunitária.

The Organization

Brazil Community Action Rio de Janeiro (ACB/RJ) is a social, non-profit organization that, for 40 years, has promoted human development within low-income communities in Rio de Janeiro. During this period, we have been present in 64 slums, through partnerships with local, national and international organizations, generating direct benefits to over 150 thousand people. Currently, ACB/RJ possesses two educational community centers: one located at Vila do João, a sector of the Mare Complex; and the other at the housing complex of Cidade Alta, in Cordovil, with a flow of about 6 thousand people per year. Our administrative headquarters are located in Candelaria which is considered an emblematic area of Rio de Janeiro.

Mission and Objective

ACB/RJ has as mission to promote and defend the citizenship rights of thousands of people who are excluded from the country's economic, social and cultural development, particularly young female adults between 16 and 30 years old and afro-descendants. Our objective is to stimulate social and educational programs and projects aimed at youth leadership and entrepreneurship.

Visit at Acao Comunitaria's education centre in Rio.

The Programs

By the means of 4 major programs, including more than 50 projects, practically all important areas of the private and community live are reached. The two main programs and two back up programs that support the first two are described as follows:

Professional Qualification and Entrepreneurial Unity: Target the amplification and consolidation of initiatives that contribute to the inclusion of young adults in the work market; the development of leaders, entrepreneurs and income generation for its participants. The courses and workshops cover Beauty and Gender, Gastronomy, Fashion and Style, Computer skills, Hotel Management, and the "Incubation of Products", the last being our differential, attracting the attention of national and international entities, government organizations, private companies and the press.

Arts, Aesthetics and Culture: The objective of this program is the continued education of children, teenagers and young adults in arts, aesthetics, and culture by the means of workshops in visual arts, theater, dance and music. This is an innovative project since it enables the access of our target public to artistic languages that are generally restricted to a minority. The success of this program can be measured by the repercussion reached by the works of art created by our students. Institutions renowned for their cultural scope, such as National Museum of Arts (MNBA), the Golden Room of The Copacabana Palace Hotel, and the Exhibits Room of the UN Headquarters in New York, among others, have housed our creations.

Health and Quality of Life: Improving the health conditions as well as the quality of life of our students and their families is our priority, as we believe that health is an essential pillar for all the other activities developed by our institution. This program comprises projects related to sports (with emphasis on martial arts and capoeira) and seeks the strengthening of self esteem, the development of self discipline as well as the spread of virtues such as cooperation, ethics and initiative. In addition, speech therapy, psychotherapy and social assistance are supports offered-- fundamental in areas of great social tension.

Education: Our objective is to encourage the development of critical and investigative capacity, making the attainment of knowledge a pleasing and stimulating

experience. In this project, children, teenagers and young adults have, most of the times, their first contact with literature. Recurring themes of the Brazilian way of life are discussed in parallel with the study of the basic aspects of the Portuguese language. The most outstanding projects “Trailer of Words” and “Literary Treasure Box”, are tools to develop a reading public, not passive but active in its learning process. Through these projects, book and video libraries were structured and made available to the communities, where they are of great value.

Production Workshops

The objective of the Production Workshops is responsible social inclusion and the generation of income, having as a basis the dissemination of a culture of initiative in association with social work. The workshops are included in the “Professional Qualification” and “Arts, Aesthetics and Culture” programs. More than the mere transmission of productive techniques is sought. The major goal is to form a citizen who is active in his community and the protagonist of his own life.

These, among others, are the workshops: fashion and style, ceramics, oil painting, drawing, graffiti, mosaic, serigraphy, paper recycling, dolls. There are also those workshops created to provide services, through the cooperative work. In this instance, Buffet Mareação stands out exploring and divulging African cuisine.

This family of products and services combine the result of social and cultural experiences and increasing market demand for goods and services. In addition to having price/quality and social value, the products are produced within a creative economy and fair trade framework due to their potential role in delivering development solutions. Today these ethical products can be found in shopping centers, cultural centers, theaters, museums and bookshops. Inaugurated in 2006 in the administrative headquarters, the Social Vitrine is dedicated to the commercialization and sale of the products. Additionally, the space has a Cyber Café which exposes the services of the Buffet Mareacão. The aim is to create a comfortable area where one can enjoy an excellent cup of coffee and have access to internet for school or academic research purposes. In agreement with fair trade principles, the income and profits generated are used to maintain the respective workshops and equally distributed among the producers as income and as an incentive to continue in the production groups.

Recognition

For its history of services rendered, ACB/RJ has gained the recognition of the communities where it works as well as of national and international organizations. For instance, four awards granted by the UN, the World Bank, affiliation to ABONG (Brazilian Association of Non-Governmental Organizations), UNCTAD (United Nations Conference on Trade and Development), and most recently, working in partnership with the UNDP (United Nations Development Program) Special Unit for South-South Cooperation within the international framework of a creative economy for development . In 2004, ACB/RJ was granted the “Efficiency Award”, one of the most important awards granted to NGOs in Brazil.

Two young boys showing us capoeira during our visit.

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Areas of responsibility: Chief accountant
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Areas of responsibility: PR, report editing
Report: Agriculture and Seafood & Aquaculture sectors, and economical aspects

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Areas of responsibility: Coordination of sponsors, report editing
Report: Seafood & Aquaculture, and economical aspects

Notes:

Notes:

Postscript

> *You cannot acquire experience by making experiments. You cannot create experience. You must undergo it.*
>
> ***Albert Camus (1913 – 1960)***
> ***French existentialist***
> ***author & philosopher***

The International Business project provided us with a unique opportunity to experience the Brazilian market. No books or lectures could have provided us with experience of comparable value, and as students we have been privileged to get such an opportunity.

We really appreciate the openness and the priority given to us when we visited companies in Brazil. This atmosphere gave us a chance to create constructive and good dialogs with representatives, which enthusiastically shared their first-hand experiences about doing business in Brazil. We would like to thank all the representatives who took time to meet with us during our stay in Brazil.

In addition to knowledge gained from company visits, being in Brazil for a month provided us with a taste of Brazilian life and culture, and we enjoyed it. Brazilians smile – and that makes a difference.

This project would not have been feasible without the support we have received from our sponsors. We would like to express our gratitude to everyone who has supported us, and say that we are very grateful for the support International Business Brazil has received.

Thank you!

Best regards
International Business Brazil 2006/07

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International Business

The 2007/08 International Business project
will focus on the challenging market of

VIETNAM

Previous projects have covered

1. Singapore	1984/1985	13. India	1996/1997
2. Brazil	1985/1986	14. Indonesia	1997/1998
3. Australia	1986/1987	15. The Baltic States	1998/1999
4. Italy	1987/1988	16. Brazil	1999/2000
5. China	1988/1989	17. South Korea	2000/2001
6. Thailand	1989/1990	18. Poland	2001/2002
7. Russia and the Baltic Sates	1990/1991	19. Turkey	2002/2003
8. Portugal	1991/1992	20. Russia	2003/2004
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