# Microcredit and crowdfunding, alternatives to traditional credit institutions? (September 2014)

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***Abstract*—This paper deals with microfinance and focus on two of its main tools – microcredit and crowdfunding. The microfinance system seems to be another way to think globalization. But is it really an alternative? It seems to have socio-economic impacts that distinguish it from the traditional financial system and make it more sustainable. But we will discuss the limits of this new model. We will see that this system is also globalized and that it finally deals with the same issues and challenges of the traditional credit institutions - governance, regulation, and transparency.**

***Index Terms*— Microcredit, crowdfunding, alternative, traditional financial system, hyperfinance.**

## I. INTRODUCTION

GLOBALIZATION has quickly led to the following assessment – the rich get richer and the poor remain poor and excluded. The wealth gap has worsened. Moreover the 2008 global crisis has shown that supposed "Too Big To Fail" banking institutions could default, putting into question the whole "hyperfinanced" system. Confidence has been lost and major actors such as governments were powerless. Thus the debate about a more sustainable finance has revived. Microcredit and crowdfunding are new globalized ways to credit that differ from traditional credit institutions. Are they sustainable financial models?

## II. NEW GLOBAL FINANCIAL MODELS

### *A. What is at stake with these models? (cf. figure 1)*

*What are the problems to face?*

According to the World Bank, the amount of credit has steadily increased from the beginning of the 1960s. For example in 1998, the amount of credit given was 42.7% of the world GDP, and it was 62.34% in 2009. But since the 2008 crisis it has decreased to 60% and, from that time, it has stayed at this level, much lower than its 2008 level. Moreover the world GDP is growing less fast since 2008, around 4% before the crisis and around 2% from the crisis (Expect bounce back in 2009). We can assume by the two previous figures that the amount of credit has a direct impact in the growth of GDP.

*To reduce the wealth gap*

GDP is a key driver to reduce the wealth gap, it could not reduce the wealth gap by itself but this is important as a starter in the developing countries in order to reduce the wealth gap. As we saw in the

lecture of Mr. Michel-Henry BOUCHET, premature financial liberalization leads to capital flow volatility and financial crisis and those developing countries that have relied less on foreign capital have grown faster. So the developing countries have to deal with these financial concerns and find a new way to finance their economies and then start to reduce the wealth gap with OECD countries.

### *B. Microcredit*

*History*

Muhammad YUNUS developed the microcredit system by creating in 1976 the Grameen Bank to do credit to the poorer of Bangladesh. At the end of 2011 the Grameen Bank gave a total of $10 billion of credit to more than 8 million persons. Mr. YUNUS and the Grameen Bank were the Nobel Prize winners in 2006.

*Principle*

The microcredit principle is to give a small amount of money to those who cannot get it from the bank (in France the maximum amount is €6000). The microcredit allows businessmen and craftsmen especially, to set up their own small business. It is given mainly in the developing countries but also in France. The interest rate in 2010, in France, was around 9.4% and the non-payment rate was only 6%.

*Actors*

The main actor is the Grameen Bank as the first institution that developed microcredit in the world but there are also a lot of other actors now. There are in the world more than 3000 institutions - like BRAC in Bangladesh or BancoSol in Bolivia - in the south but also in the north of the world. The outstanding balance loan was in 2012 more than $90 billion for more than 200 million clients.

### *C. Peer-to-peer lending*

*History*

Peer-to-peer lending exists for long time. For example, it is something that exists in a family or between friends. Moreover Business angels are a kind of peer-to-peer lending and exist since 1958 in the USA. But the emergence of the Internet and social networks set up new way to lend and borrow. And a lot of peer-to-peer lending or crowdfunding has appeared since 2000.

*Principle*

Peer-to-peer lending exists in two types. The first type is one lender that lends to one borrower. It was made to overpass the bank to avoid financial costs and for everybody to have a loan even people who were refused by banks. Internet and social networks build a new form of peer-to-peer lending. There is still one borrower but there are plenty of lenders. It is mainly made by crowdfunding platform. The investors can receive interest like Lending Club in the USA or zero interest like Kiva Microfunds. The person who wants to borrow money, goes to a platform to ask to the potential lenders how much she wants and what will be the investment and all personal data (age, jobs…) and the potential lenders decide or not to lend him a certain amount of money.

Peer-to-peer lending is an interesting system because it is both to borrow money and to save money for investors. This allows an alternative to the traditional financial institutions.

*Actors*

There are a lot of platforms for peer-to-peer lending. It is important mainly in the USA, the cradle of peer-to-peer lending system, with Lending Club, Prosper and Zidisha, the first peer-to-peer lending service to operate across international borders without local intermediaries and non-profit organizations. In Europe, there are Zopa in the UK, Prêt d'Union in France, Auxmoney in Germany and Smartika in Italy. In developing countries, this kind of lending is less used or differently. Most of the times the crowdfunding platforms have to invest in microfinance institutions and not directly in the project of the potential lenders like Kiva Microfund.

In 2013, the USA are the main actors in terms of volume in crowdfunding transaction with 72%, Europe have 26% and the rest of the world 2%. We can note a gap between developed and developing countries in this alternative model.

## III. SOCIAL AND ECONOMIC IMPACT *(CF. FIGURE 2)*

### *A. The economic impact*

*To fight against banking exclusion (cf. figure 3)*

Poor people are usually suffering from commercial banking exclusion with limited options to access loans, which result in pushing them in more poverty. This exclusion is essentially due to a lack in guarantee but also because they have not proper experience and training. Besides, they have high expenses on transactions of small loans and lower rate of profit. Therefore, microcredit is, a way for them, of financing their businesses and lifting up their earnings. In Nigeria, although interest rates are not significantly influential, microfinance institutions have positively impacted the Nigerian economy by expanding the GDP.

*To impulse entrepreneurship*

People with low income can have innovative ideas for their businesses, but no financial resources to implement or launch them. In that sense, microcredit and peer-to-peer lending are contributing a new role in micro-entrepreneurship. For instance, in France, in 2012, France Active, a microcredit organism, financed 5134 entrepreneurship projects and created 8 392 jobs.

### *B. The social impact*

*To reduce highly tense situations*

Nowadays, in a lot of poor countries, or even in rich countries, the underclass population tends to feel desperate, unheard, and that their government does not understand their situation. In addition, they do not find the resources to improve their lives by starting businesses or getting trained. All in all, this can create tensions within the countries. And that is why the role of microcredit is so important. It shows the population that there is a way out of poverty. Microcredit is often a synonymous of hope for these people

*To reduce unemployment and exclusion*

One of the main goals of the microcredit is to help people in need, and get them out of poverty. Microcredits often go to unemployed people, having a hard time finding jobs. These people feel excluded, and feel rejected by the society. For example, in France, Pôle Emploi provides microcredit to unemployed people, willing to start a business. This kind of microcredit has multiple

positive side effects: people are no longer unemployed; they are working and no longer excluded by the society. Plus, this creates wealth in the country, so this is a “win-win”. Since the creation of Adie (Association for the right to economic initiative) more than 78 000 companies and 106,000 jobs have been created.

*The role given to women thanks to microcredit*

As it turns out, people involved in microcredit are essentially women. As Juan Somavia, the International Labour Office Director-General, mentioned “Microcredit plays a critical role in empowering women, helps deliver newfound respect, independence, and participation for women in their communities and in their households.” According to a report of the NGO, the Microcredit Summit Campaign, published in 2011, 74% of the microcredits in the world are made by women. This is even truer in developing countries, such as Bangladesh (97%), or Vietnam. It shows that microcredit helps women to prosper in these countries, essentially dominated by men, and to be a bigger part of their countries’ economy.

*The role of investors in crowdfunding systems*

Besides, private investors and microcredit organisms have a very important role, because they provide these people in needs with some money. But Individual investors also have a role in microfinance through crowdfunding. Indeed this process is more and more common today. It allows individual investors, to invest in a project they believe in. And it allows business owners, or people who want to start one, to get money with often less interest than a credit because there is less intermediary than classical establishments of credit. Also, this system is based on a “win-win” system because it allows people who have a project to have access to credit and people who want to invest to receive interests. For example, in the platform Smartika, people who invest have a 6.5% annual interest.

## IV. ACTORS OF A FAIRER GLOBALIZATION ?

Traditional credit institutions belong to what Mr Michel-Henry BOUCHET calls “Hyperfinance”. They are facing some problems such as bad governance or lack of transparency. Microfinance, appearing more sustainable, seems to be a very distinguished system, not directed to the same kind of target. So we can wonder if this new model can compete with the traditional one in the long term.

### *A. Does microfinance and peer-to-peer lending reach their goals?*

In order to determine the effects of microcredit and peer-to-peer lending, a lot of studies are based on a comparison of borrowers’ lives before the credit and after. It is difficult to measure the real impact of these models. In general terms, these studies underline positive impacts of these models. For example, regarding the economic impact, studies show that in Bolivia people who obtain microcredit from Banco Sol doubled their income. In Kenya, India and the Philippines, studies also stress that self-employed persons had a return on investment. Also, in 2011, a report from MicroBank, a Spanish microcredit organization, pointed out the usefulness of microcredit. Indeed, 74% of borrowers could not

start their own business without the microcredit. In terms of social integration, the same report pointed out that 66% of borrowers saw a positive impact on improving their living conditions. Testimonies of women in Burundi confirm this point.

In the peer-to-peer system, Babyloan has financed more than 8 000 projects since its founding in 11 countries mainly in developing countries. And MicroWorld financed 535 projects in 2011. The development is still quite low but it is increasing year by year with the arrival of new actors.

We can note that microfinance and its tools are more and more taken into account by global organizations. Indeed, the UN have seen the impact of microcredit in globalization and particularly in the path to the Millennium Development Goals to eradicate poverty by 2015. They have created the International Year of Microcredit in 2005. For them, microcredit has evolved to “inclusive finance”, namely a universal access to a wide range of financial services from credits to savings. This “inclusive finance” must play as a key tool in development.

The key of success of these models depends on the effectiveness of advice and recommendations to make projects and steps of development safer for the microcredit and the disintermediation, which make possible low rates, and the social network for the peer-to-peer lending. Moreover, it relies on the implications of actors – NGOs, investors, states - and their credibility.

*B. Limits of these models: can they be competitive and an alternative to traditional financial institutions on the long run?*

Thus this alternative model of microfinance is more and more trusted and developed on the global stage. So much more, that it can be overexploited and transformed far away from its original goal - to include the poor in the financial system. Indeed some banks have taken hold of microcredit and made of it a very profitable means to make money with very high interest rates. Even if those microcredit rates are higher (35% in average) than a simple credit rate because they take into account the risk taken by the microfinance institutions, they can be abusive. These loan sharks can reach 300% at more. This distance from the original goal of microlending has made Mohammad YUNUS said “Microcredit should be seen as an opportunity to help people get out of poverty in a business way, but not as an opportunity to make money out of poor people”. This shows that the Hyperfinance system is trying to integrate microfinance. For instance, Banco de Credito, one of Peru’s largest banks, has bought a microfinance institution created by a humanitarian organization. In the crowdfunding model, mainly organisms use a scoring system to know if the borrowers have enough guarantees to finance their project. So, poorest people cannot access to this type of credit. In this point of view, it is similar to the criteria of traditional banks.

Furthermore, the microfinance sector is also subject to crisis. For instance, in 2010, in Andhra Pradesh (India), 200 famers committed suicides

because they had taken such a big debt that they cannot refund it. Lending companies gave loans without checking the capacity of the borrowers to repay it. This crisis reminds the 2008 subprime crisis, raising the question of regulation. As a result, the number of beneficiaries decreased by 5.12% in 2011 mainly due to the Indian reticence to contract. That was the first time that a decrease has been noticed since 10 years of prosperity. In the peer-to-peer systems, there are rip off, so investors and borrowers have to be careful and use accredited platforms.

To fight against downward slides of microfinance institutions, government should play a role. In some countries with political instability, non-governmental institutions would contribute to set norms, rules. For example, it was the case of the European Commission whose members established a "European code of good practice for microcredit excises" and more precisely, in France, an organism named ACP control the good practice in microfinance.

Thus microfinance and Hyperfinance seem to have many similarities. They do not appear to remain two separated systems. They seem now to be more and more interlocked. They seem to evolve together on the same path on the long-term view. This means that they will face the same challenges – governance, volatility, transparency, and crisis.

### *C. New perspectives and expansion*

New technologies can play a key role in order to expand microcredit and peer-to-peer lending. Since 2000, developing countries have recorded 5 billion new subscriptions to mobile phone. More and more people in developing countries have access to mobile phones. That is why, microfinance institutions are establishing a system of payment by mobile phone. This system allows business owners to pay their monthly loan remote instead of mobilizing and loosing time for those who live in rural areas to get to the institution. On the other hand, for the peer-to-peer lending, the emergence of Internet allows to create crowdfunding platforms, the core of the system. New technologies provide wider opportunities and market in particular with the social networks.

## CONCLUSION

All in all, microcredit and crowdfunding provide both financial and social services, which is not the case of general commercial banking system. Therefore, they are development tools balancing and combining both financial and social intermediation. Even if they can be improved and expanded, this model shows the key issues of globalization and the weaknesses of traditional financial institutions. This model has to be improved to sustainably reduce poverty and to face negative impacts of globalization over the long term. Is this model adjustable to make an always more sustainable and fairer finance?

# APPENDIX

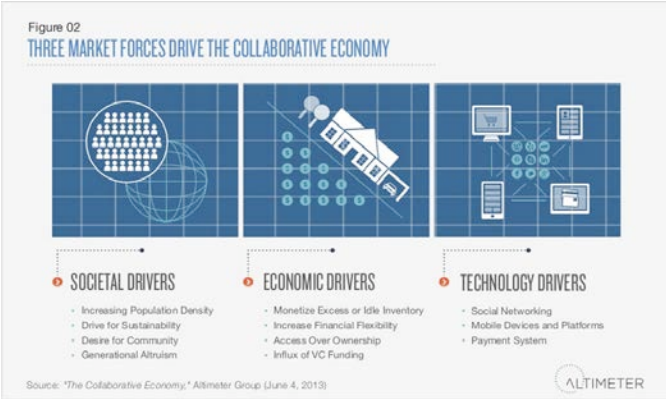


**Figure 1: Issues of microcredit and peer-to-peer lending**

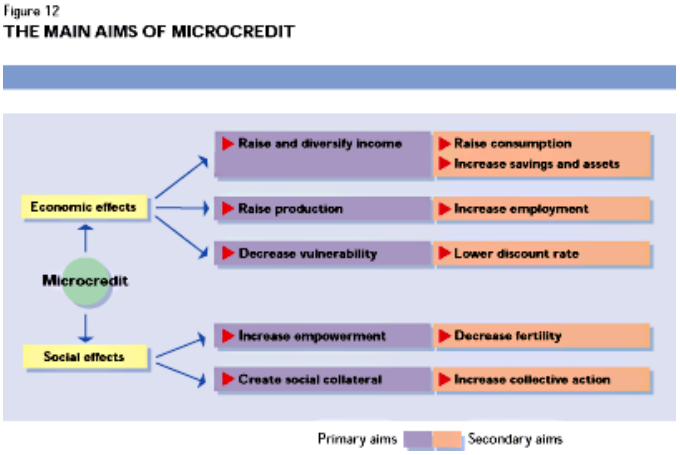


**Figure 2: Impact of microcredit**

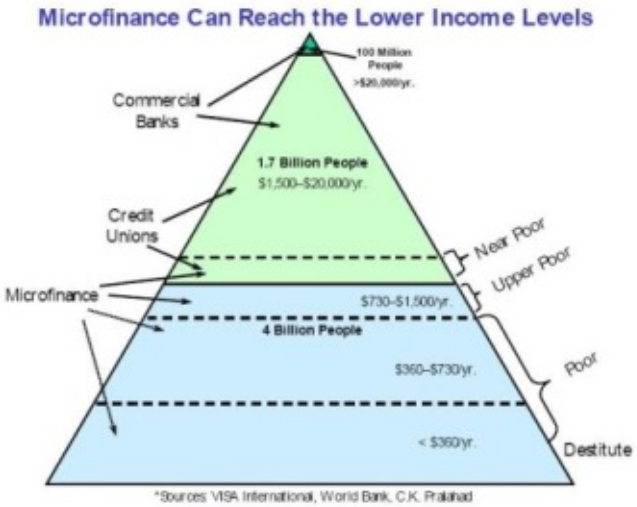


**Figure 3: Banking exclusion**

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# PRIVATIZATION AND EXTERNALIZATION OF THE MILITARY: A GLOBAL CHALLENGE

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***Abstract*—Globalization has changed the way the military works. Private Military Companies (PMCs) ensure support missions to National Forces, regular armies and private companies all around the world. These firms reflect the redefinition of the Defense sector and the focus on the military on their core business; they help regular troops by taking over the auxiliary activities like maintenance, training, transport, Intelligence gathering and analysis, etc. These companies fall within the recent logic of externalization initiated by Western countries. The evolution of PMCs within the last 40 years reflects the growing need for outsourcing in a world traditionally closed and reluctant to international partnerships. Today, France must analyzes this global trend and outline ways of development for these companies so that they can favor the efficiency of its military.**

## INTRODUCTION

THE externalization of the military is not a light subject. The Defense world has been boiling for the last 40 years: are PMCs a new way of saying mercenary activities ? Are PMCs only driven by profit ? Are they trustworthy enough to be entrusted with national-security responsibilities ? Are externalization and outsourcing the same thing ? Is the Externalization process inevitable ? Those are a few of the questions that still remain without clear answers. We will try to address them around three main points.

First, we will think about the origins of outsourcing the military and their current implications. Then, we will go deeper in the Private military world and dress a picture of the different actors and services in the world. Eventually, we will focus on the French scenario and the specific nature of this challenge in the globalized market.

## I. A NEW HISTORICAL TREND RESPONDING TO WORLDWIDE BUDGET CUTS

The history of the military shows us that War has always led to Economic and technological jumps. For the traditional German school, War participates of the development of productive forces. For W. Sombart, the Industrial European revolution and capitalist system are the fruits of War. Military necessities of armed conflicts created the preliminary conditions of a capitalism [1]. Indeed, they boosted the constitution of global markets through the centralization of orders and mass consumption. They promoted technological innovation, standardization, Economy of scale and Industrial concentration on a European scale. These necessities also contributed to the expansion of the Financial system by managing the State's military debt. At these times, War was a necessary evil to the Economic development of Capitalism and the arms race was deeply linked to the Economic growth race. Through war, Medical advances and technology enhancements shaped Civil society. Even nowadays, by linking military effort to technological development and Information industry, the diplomatic strength to the Economic strength, the US can secure its global leadership: the US dollar owes its value to the US military hegemony. However, does this paradigm still applies now that the global finance has entered its most advanced stage ? As M-H Bouchet puts it in his book *Hyperfinance and regulation*, Finance has set free from the Economy since the deregulation policies and the globalization of the banking system in the late 80s. Indeed, the Liberals and the neo-classical school forecasted the dead-end of War and its cost issues in a fully realized Capitalist economy: in a trade-free world, more and more conflicts are to be resolved by legal and economical settlements. As L.F Richardson puts it, increasing-military spendings and the Economic "fatigability" they weight upon society would eventually become an issue [2]: if it boosts Economic growth, it does little for social development. J.M Keynes thinks that military spendings are the most unproductive form of public spendings because they are not driven towards production, since they are "unproductive" consumption; the more is spent on the military, the less on household goods, the higher the risk of inflation. Thus, Keynes develops two main propositions to rationalize military costs during peace times and war times. First, a limited increase of prices in order to put national goods on the same level as foreign imported goods. Then, a mandatory saving policy that would allow the people who subscribed to this debit to hold a part of debt to collect after the war (i.e., the State's actual consumption of war goods) [3]. These theories were soon to be applied: less than 20 years later, the French government decides to solicit public savings by requiring a new loan ; the Treasury department is now in charge of financing the deficit of the budget - military but also civilian - through a loan on the

financial markets. This financing problem of the Defense Department (DoD) has run its course until its peak in 1979, during the Energy crisis. Since then, DoD budgets have been the budget adjustment tool in most developed countries (except in the US) and the main question remains: how to rationalize the use of resources in order to have "the best value for money"? Since the end of WWII and the rise of hyperfinance and overconsumption, the Keynesian approach and the neo-classical school are not enough anymore: we need a new approach fitted to the new paradigm.

The main issue with the traditional way of financing the Defense sector is the weight and the cost of the process: the military programs law works differently depending on the country, but a few bullet points remain: first, a military program law defines the forecast and the management of the expenses for a given amount of years (for instance, six years in France). Then, the means to achieve these expenses are reviewed. Besides obvious flexibility issues, this method brings up another dilemma : how to forecast expenses that would last more than six or ten years? How to address punctual and unexpected expenses ? For instance, how to forecast the IT skills you will need in ten years to operate in a specific part of the world ? Indeed, how to be sure that your own personnel will be sufficient and adequately trained for the task ? In the current globalized world, that is not entirely possible anymore. We need lighter structures as well as more responsive and flexible processes in order to address the global military challenges of this brave new world. We need outsourcing. The US have been the first ones to tackle this issue. In 1991, the US engaged a new military policy base on the catch phrase "Front line first !", which meant going back to the basics of the military: monopoly of legitimate violence. Thus, the US were the first to decide to gradually outsource maintenance and support functions to private companies. Over the last fifteen years, most of OECD countries have outsourced cleaning services, catering, quarters building and maintenance, vehicle maintenance, staff transport, surveillance of premises, etc. But since this day, the US and other countries like Brazil or the UK made a step further by transferring key parts of their system to private companies, thus justifying the term externalization. Nowadays, less and less armament is produced by government employees working for the State. The ongoing trend is to privatize armament companies that are now capable to offer not only weapons, but global Defense solutions, influencing on the long term the Defense sector [4]. This trend can be seen as an answer to the drastic budget cuts in the Defense sector during the last ten years: in 2010, the UK reduced their budget by 8% (spread over four years) and suppressed 42,000 jobs. At the same time, Germany reduced its military expenses by €9,3 billion over three years. The US military budget, which skyrocketed by 63% between 2001 and 2010, came to a halt in 2011 as R. Gates (US Defense secretary of State) announced USD 178 billion of budget cuts and 47,000 job losses at the end of 2017. This global trend led the US and the European countries to collaborate and develop partnerships with private companies all around the world. In addition, newcomers in the arms race are huge US and UE military material buyers, as their own Defense industry is not self-sufficient yet. For instance, India and Saudi Arabia passed the threshold of USD 37 billion in 2012 and Russia and China spend respectively USD110 billion and USD 150 billion per year [5].

That being said, we must now differentiate two major directions within this Outsourcing and Externalization process: one concerns the externalization of R&D and industry to private-public conglomerates. For instance, eventhough the French aviation is provided by *Dassault Aviation* (private French company), the weight of R&D costs makes it impossible to be sustained for a single state or company; the *Rafale* program cost around €44 billion and the *nEUROn* drone has cost half a billion in two years. Thus, technological projects of this size are backed up by a consortium of numerous countries (Sweden, Spain, Italy, Greece and Switzerland for the nEUROn) and private companies like Dassault and Airbus group (ex-EADS). These huge companies favor alliances more than mergers and work hand in hand with the States. Each consortium has shares in one another's; *Dassault* holds 26% of *Thales group*, *BAE systems* used to hold 20% of *Airbus group* and the companies *Lockheed Martin* and *Northrop Grumman* control more than 25% of US DoD budget.

Looking in the other direction, we find *PMCs* (Private military companies) that manage the outsourcing of support, maintenance and training of the military, as well as security and "field" operations. Thousand of these companies share an annual USD 165 billion US market and around $400 billion globally. These recent structures (most of them were founded in the 90s) present an interesting synthesis of private-public business model, responding to the new Economic trend.

## II. A NEW BUSINESS : GLOBAL COMPANIES OFFERING VARIOUS AND VARIED SERVICES TAILORED FOR PUBLIC-PRIVATE PARTNERSHIPS

One of the main arguments against externalization is the accusation of a possible mercenary trade abuse: since these PMCs are privately held, what would stop them from selling their sword to the best offer ? Reality is more balanced. As of 2012, 90% of the PMC contracts are performed between the company and a State or a Government agency [6]. The other 10% usually link PMCs to NGOs and global private companies. These companies have no interest in going against the interests of their country of origin, or engaging themselves into mercenary-type activities for a private party. Regular contracts are far more lucrative and safe. In fact, most of the States realized there was no economic interest in maintaining confusion between mercenary activities and Military services from professional companies, this is why International Legislation on the subject has greatly improved over the past ten years. One of the most representative legal texts is the 2010 ICoC (International Code of Conduct) relative to PMCs in conflict zones [7] signed by 708 companies from 70 different

countries: not a single mention to mercenary activities is implied in the document. Legal checks are also frequently performed. For instance in the US, if the nominal value of a contract exceeds USD 5 million, it is subjected to a tough examination of the Congress, thus preventing any drift. Eventually, one must not forget that the vast majority of civilian contractors do not bear arms: during the peak of the Iraqi war in 2008, only 12% of the 200,000 contractors employed by the US government were armed contractors assigned to security jobs, whereas 65% were affected to base-support. The importance given to PMCs during the two Iraqi war is a good indicator of the progression of the externalization business. In 1991, the ratio civilian contractor/US soldier was 1 per 55. In 2008, it was 1.5 per 1. In 1994, the sole US army issued 75,000 contracts for a total value of USD 11 billion; in 2008, 571,000 contracts were signed for USD 165 billion. During these 14 years, the DoD reduced by 45% its personnel assigned to the supervision of these contracts. If it did so, it was mainly because PMCs were doing a great job with recognized professionalism. Indeed, if we take a closer look at some of the most important PMCs, we notice that most of them belong to huge industrial or financial conglomerates (the infamous military-industrial complex) : *G4S* (620,000 employees in 2013) provides manned services, CCTV, mobile security patrols, "secure facilities services", maintenance and base-support, medical services but also Risk Management and consultancy services. *DynCorp*, another prosperous PMC, was bought by *Computer Sciences Corporation* in 2003, and again in 2010 by a New-York based private investment firm, *Cerberus Capital Management*. Another infamous PMC, *Triple Canopy*, merged in June 2014 with *Academi* (former *Blackwater*) to form *Constellis holdings*. As we can see, all these companies are perfectly rooted in the global Economy and the political landscape of their countries. Over the last 20 years, they have convinced the Global leaders that they could provide an efficient and cost-competitive solution to a large variety of issues. They proved themselves to be flexible and responsive, good at implementing and managing new IT solutions and technologies, but also efficient in military situations. Indeed, the PSDs (*Private security details* - armed contractors) employed by these companies are retired military professionals only approved after thorough military clearance background checks. For instance, when it operated in Irak and Afghanistan, *Blackwater* only employed as weapon-carrying personnel US citizens approved by a seconded US official. Around 80% of these contractors were former Special Forces or Elite Law Enforcement units [8]. This kind of work is extremely attractive for retired soldiers and administrative personnel: for instance, a private contractor could earn up to USD 800 per day for a VIP security detail in Irak, and a private helicopter pilot is usually paid twice the "army" salary. Even with this kind of salary, the costs are still cheaper for the State than training and guarantying a 10-year salary to a regular soldier. This explains why in 2009, private contractors cost the US Intelligence Community 49% of their budget [9].

Regarding the services provided worldwide, we can use the image of the "*tip of the spear"* used by D. Avant [10]: the military provider firms (the tip), the military consultant firms (the handle) and the military support firms (the lower part). Military provider firms are mainly used for transport convoys, protection of domestic and offshore strategic sites (the US outsource nuclear plants and prisons security, and global companies use thousands of contractors to protect oil refineries and ocean-freight [11]). Military consultant firms have been providing training to former soviet-countries (mainly Hungary [12], Bulgaria, Ukraine) and south-American countries [13] for the past 20 year. Recently, European and American companies have been training military personnel for the *Afghan National Army* as well as for Iraq's. *Vinnell* (a company that belongs to *Northrop Grumman*) has won a contract to train the *Saudi National Guard* [14] and in 2011, *MPRI* was chosen to train a coastguard task force in Equatorial Guinea. Besides training, Intelligence solutions have been massively outsourced to consultant firms within the last 10 years. In 2007, managers from the *Defense Intelligence Agency* revealed that private firms received 70% of the annual USD 34 billion Intelligence budget. Around 100 companies share this market, including *Lockheed Martin*, *Thales* and *BAE Systems*. But outsourcing Intelligence has a cost : 50% to 100% more expensive. Since 2001, countries like the US, the UK and Canada do not have sufficient human resources and competencies (especially linguists and SIGINT analysts) to gather and interpret Intelligence all by themselves; thus the outsourcing, despise its costs. Eventually, military support firms deal with total base support, from the construction to the security and the maintenance of the place. The States' objective is to focus their military personnel on core Defense responsibilities and to reduce operating costs. For instance, the USAF outsourced its abroad stock-management to *DynCorp* (USD 418 million for 2010-2018). NGOs and International institutions use a lot these services for their foreign operations (e.g. the UN during the 2010 Haiti earthquake).

Despise a few inevitable ethical failures and assessed frauds (overbilling mainly), PMCs managed to convince governments that they can efficiently contribute to the Defense and protection of national interests. But on the contrary of what is usually said, PMCs do not seek total privatization of the war effort: war is to stay the prerogative of the State. Indeed, not one PMC has neither the means nor the financial interest to substitute itself to a regular army. Like any private firms, PMCs are driven towards profit. What bothers people is that nowadays sovereign states are forced to recognize that security has become a market good and is hereby following the rules of globalization. Hence, this situation favors a few countries that were able to develop strong national military industries and services that benefit the most from the free-market competition. However the diversity of supply and the rise of emerging countries tend to balance favorably on the price charts. The current challenge PMCs are facing is to become fully integrated to Peace operations processes initiated by global institutions like NATO, the UN or even the EU. The UN already deploys PMCs for protection missions and base-support (e.g. during the DRC crisis in 2004 [15]), but their role is not yet confirmed

within the organization's status, even if their cost-effective solutions and professionalism are making their way. In order to achieve that goal, PMCs are trying to get rid of their public image of "mercenaries" and "money-making thugs" by increasing their role in humanitarian crises and global peace. Over the last 10 years, private companies have helped and assisted Third-world countries by investing or acquiring firms specialized in international development and State infrastructures reconstruction (e.g. DynCorp which bought *Casals & Associates* in 2009, and *L3 Communications* acquired *International Resources group*). Recently, former *Blackwater* founder Erik Prince explained how his company could have helped stopping the Rwandan genocide and how PMC structures are perfectly suited to fight the Ebola outbreak [16].

Whether all of this is a good thing or not, that is not the question. The days are gone when countries could equip themselves *in anticipation* of future challenges. Nowadays it is *in response* that matters, hence the importance of "crash programs" that require flexibility and technological imagination. Defense externalization means deciding to keep the sovereign decision and the control of the process; then, allocating human and financial needs adapted to the mission; and eventually, using the right PMCs for the right tasks.

## III. REGULATION FOR A *SMART-CONTRACTING* APPROACH: THE FRENCH SCENARIO IN A GLOBALIZED WORLD

It is time now to get a little perspective on the French situation within this global business. What is the current situation ? What are the fundamental reticences of the political class ? How to achieve a *smart-contracting* position ? To begin with, France faces a financial stalemate, as its public deficit amounts to 4,3% of its GDP. As we already saw earlier, the Defense budget is the first to suffer from restrictions. Thus, how can we go on financing our *crash programs* (36 contracts, for €260 million) and our R&D ? In the last *Livre blanc* published in 2013, the French government confirms a pooling strategy to the detriment of externalization. Yet externalization is still the best way to "pay as you low": you only pay for what you have to use during a given time. This the most flexible and cost-effective immediate solution at our disposal. For instance, the TPLS (Third Party Logistic Support Services)in Germany reduced the deployment costs from €884 million a year to €650 million. In the meantime, the German army reduced its stocks by 59%. The overall French Defense workforce loses roughly 20 000 positions every year. The stress that weights upon French workforce will soon come to a critical point: French DoD asks too much with too little means, and the current organization of the army does not allow neither for flexibility nor for responsiveness, as the last intervention in Mali proved it [17]. The real issue is that the DoD practices externalization not within a consistent and global approach, but only in a punctual matter, during "opportunity operations" and other one-time experiences. The only systemic use of externalization concerns the Marine ships maintenance.

Indeed France lacks a consistent policy determining the scope and the boundaries of the externalization process. Because of this artificial blur, only the shortcomings of the process are highlighted by officials. Let us review the main "cons" frequently used against outsourcing and externalization: the first issue deals with over-reliance. It is true indeed that some countries fully outsource some of their military functions. For instance, Canada, the UK and Australia fully outsource medical support to private hospitals and PMCs like *CHS International* and *Tactical Medics International*. *Aspen Medical* is specialized in medical goods supply in HRAs (High Risk Areas) and is the exclusive partner of the *Australian Defense Force*. Still, these additional capabilities are essential in today's global battlefield: the specific and unique nature of the different theatres of engagement make it impossible to be always prepared for each situation. Another cons that arises from this observation is the issue of irreversibility: in his book *La privatisation de la violence*, X. Renou states that outsourcing the need for competencies to private companies will eventually lead to the loss of these competencies within the Military; hence, an aggravated over-reliance situation. This risk has to be toned down. First, since PMCs evolve in a global, free-trade market, the disappearance of a challenger will be balanced by the rise of another, and even if one of the PMCs increases its prices too far, nothing would keep the government from going to the competition. On the other hand, since PMCs and private firms recruit mainly trained professionals from the retired military pool, they have no interest in contributing to the disappearance of military services. The only feasible risk would be an extreme government decision to dismantle a whole of the military to privatize it, but this is highly unlikely, even in the US. Perhaps the most frequent risks are the overpricing and extra-costs abuses; like many private companies, PMCs are known to "boost" their margins. For instance, *KBR* (PMC belonging to *Halliburton*) was indicted for overbilling $61 million of fuel to the US military. French restaurant-services *Sodexo* was also in a bad spot with the USMC after an overbilling of 36% on a 8-year $881 million contract. Who is to blame ? No doubt that the companies are wrong, but the lack of institutional State controls encourages these bad practices. To go a step further, the contractual system is probably the main issue: the majority of contracts concluded around the world are *cost plus fee* (CPF) contracts, which means that the remuneration of the supplier includes a refundable part and a fixed part (*fixed fee*). The fixed part states what profit the company could make, while the refundable part embeds the external costs (salaries, equipments etc.). it can be tempting to "boost" costs or even to create fictional ones, especially when the *fixed fee* is indexed on the costs. This explains the prominent inflation of PSDs salaries in Iraq: the client would pay salaries anyway, as they are part of the costs. And if the fee is calculated on a cost-basis, the works even better. Private firms are wrong, but this is also the governments' fault to let these legal loopholes open for so long. Like other ethical issues, it is often the permissive environment and the blind eye of the governments that allow those abuses. This brings us to the mother of all

problems : the "deresponsibilization" of the ordering customer. It is his responsibility to ensure the control and the evaluation process of the service. In his book *Civilian Warriors*, E. Prince gives his version of the facts that lead to the infamous dismantlement of *Blackwater*. The contract he signed with the US DoD was a thousand pages long, and detailed exactly how they should proceed, what weapons to bear, which cars they should use; basically how to do their job. But - according to Prince - almost nothing about the attitude to adopt during "contact" situations, nor other critical precisions [18]. Maybe we can find an answer in the fact that most governments tend to externalize the externalization follow-up. And sometimes the monitoring of the different task-orders is given to companies who may have conflicts of interests with their clients. The US government is beginning to be aware of that fact and *oversight* is more and more the key-word of their outsourcing policy. France has come to the same conclusion but the field of research is still focused on military provider firms rather than support and consultant firms. The real issue that has to be tackled as soon as possible is the framework regulation that would lead to the legal acceptance of consultant and support military firms (currently blended in an obsolete regulation that barely assimilates them to mercenary firms).

Final question: how to achieve a *smart-contracting* regulation that would allow us to remain military efficient within years to come ? First, we should think externalization as more than a cost-reduction opportunity. Externalization should be part of our military business model, as a fully-integrated component. The government should not compartmentalize the military in little blocks and then decide which one should be outsourced and which one should not. The goal is to create a coherent system that makes the best use of the private-public partnership. First and foremost, only a National process could be legally-binding enough in order not to disappear within the complexity of the International law. But this national process should not be as permissive as the US or the UK, because of the abuses of course, but also because most of the PMCs are Anglo-Saxon. For now, the *Montreux* document (as seen in Pt.1) details the Legal obligations and good practices between States and privates companies *during armed conflicts.* Its recommendations bind together three types of States: states of origin (country where the PMC is registered), states contracting (the clients) and territorial states (countries in which the PMCs operate). The document details what each actor has to verify and comply to ensure the best practice. Eventhough France signed the document, its point of view on PMCs is still affected by constant references to mercenary activities: the 2003 April 14th law regarding mercenary activities establishes no distinction between those illegal activities and legal activities involving contractors bearing arms or unarmed contractors evolving in a war zone. The law was then praised and fostered by military high-ranking officers who disapproved of the private sector threat toward military jobs [19]. The other French problem is that most of the PMCs are backed up by experienced global industrial and financial groups that are currently earning every OPEX contract. Some French companies are already trying to merge and pull off alliances in order to be operational once the legislation has evolved: *Veolia Envirronement* and *DCNS* have created a joint company - *Defense Environnement Services* - specialized in day-to-day management of military sites. But these initiatives are still very scarce, as there is not any political support yet, and thus, little financial support. There are only a few PMCs (of which *3S Group*, *Gallice*, and *Geos* are the most important) that do mostly consultant work and risk assessment for private companies in degraded countries. Public-private partnerships are slowly developing. An other idea should be considered, inspired from the British *sponsored reserve:* conventions allowing private company personnel to be dispatched to degraded foreign countries while being under military status. This status allows civilians to momentary benefit from military logistic and equipment. Such conventions have been shyly considered for companies like *Cap Gemini*, *Thales*, *GDF Suez*. This status would attribute a clear status to all operators, make them eligible for social insurance and overall, this would facilitate and wider the range of the externalization process. Once these operators are dispatched, a thorough work of supervision and monitoring should be insured by an office answering to the Government. This office would verify the execution of the contract and establish and monitor KPIs. This simple and relatively light process could be implemented within a few years and would allow France to remain competitive, while awaiting a deeper recast of the Legal military system.

If we had to summarize a few propositions for the French case, we should say that the 2003 Law regarding mercenary activities should be revised. The competition should be assessed and watched, especially from the emerging countries that may be beginners in this business, but who are also way more free-market oriented than European countries. The externalization should be though as a part of the military and not as an economic opportunity add-on. The main risks - overbilling, over-reliance, ethical risks - should be carefully weighted so that they do not become an obstacle. A clear organizational framework, adapted to the legal framework should be drawn with the main stakeholders, private and public. A clear status distinction should be made between military provider firms and support/consulting firms. The oversight should be done by the Government only with a clear Task division. Legal and financial procedures should reduced to maximize the private-public partnerships benefits and allow companies to be more flexible and reactive. From the Government's point of view, encourage and assist the French private sector in order to develop a real French military-industrial complex that would be profitable and that would allow the country to remain as military-independent as possible. Eventually, involve the High Military Commission to avoid conflicts and to ensure a better transparency.

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# Globalization

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## Group 16

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# *The Benefits of Outsourcing and Offshoring for the Aerospace Industry*

# The Benefits of Outsourcing and Offshoring for the Aerospace Industry (September 2014)

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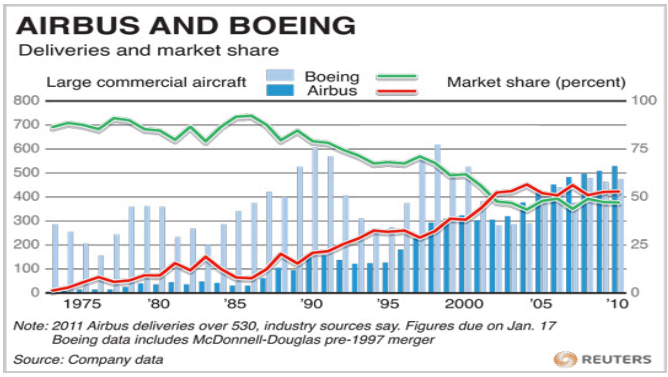
## I. Introduction

On the 1st of January 1914, the first commercial flight took place in the United States. One century later, the Aerospace Industry has become one of the world's largest manufacturing sectors and a pillar to globalization, despite its high complexity. This industry encompasses research, design, manufacturing and commercialization of aircrafts but also related equipment. There are two aspects to this sector: defense and commercial. We are going to focus on the latter due to its much greater impact on globalization. This sector is characterized by a duopoly situation with two main players, Boeing, an American firm, and Airbus, a European company, but also by a few smaller more specialized competitors.




Despite the "Western grasp", this industry's market tends to shift from an emphasis on developed countries, to emerging countries, such as China, India, and Russia (Asia-Pacific aircraft demand for 2013 to 2032 is expected to be more than double the demand from North America and Europe). These new market opportunities have led the giant manufacturers to adapt to the worldwide changes in order to take advantage of this new trend. They chose to do so by implementing an outsourcing and offshoring strategy. Therefore, we can wonder what are the benefits of such a strategy.

Based on the indicators of the current situation, we will see how the corporations implement their strategy on the short term to optimize their business and be compliant with the requirements of the market, while slowly defining the long-term strategy, and evaluating the potential threats.

## II. The Indicators Of Globalization For The Aerospace Industry

Since the Wright brother's first flight in December 1903, the Aviation Industry has advanced in huge leaps. Early aircraft manufacturing started predominantly for military purposes around the time of World War I. War drove the industry from its fragmented roots with inventors working each on their own in their country to a global cooperation market in the early 20th century, with for example, the creation of Governments funded testing laboratories allowing for the creation of a large database of scientific information to be used in the industry. Historically Europeans were the original market leaders in aircraft manufacturing with French firms as evident frontrunners followed by the Germans and then the British. Later American manufacturers gained the competitiveness due to the large demand from local airline companies.

Long distances in the United States made air travel very attractive thus it became a direct competitor with rail transportation. European producers had a significant smaller market and were heavily subsidized by governments as they struggled to find customers. Then, the 1980's air travel boom allowed for significant growth and so it molded today's large manufacturing giants Airbus and Boeing.

Globalization has permitted the industry to grow and to become widespread, essentially with the explosion of communication, products, and people flows.

The current evolving environment with the emerging market in Asia-Pacific but also the significant increase of the working population, and more particularly the rise in the middle class population in these areas have become key factors for this industry. These factors are impacting the aircraft manufacturers' development strategy. Therefore the firms located in the developed countries are taking advantage of this massive workforce in the emerging market countries for which the wages are more competitive. China and India are leaders in this field. But added to the cost and working population attractiveness, these countries see the number of qualified workers increasing. Whereas in the same time, the developed countries, are progressively facing a strong reduction of the skilled working population for the twenty coming years. All in all, these external factors are synonymous of prosperity for this sector.

However, some modifications in their strategies can be explained by certain protective countries, due to large government involvement and strong governance in the economy. As a consequence the plane manufacturers are progressively changing their business model in order to penetrate these new emerging

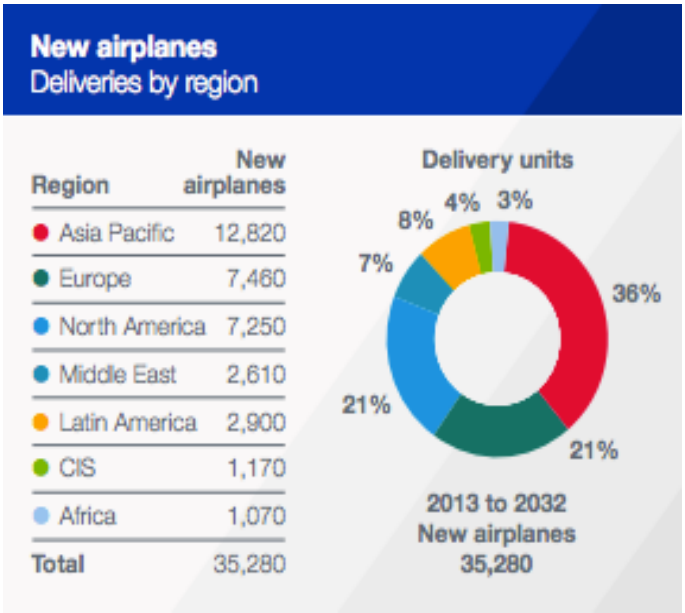
markets and to secure massive aircraft orders.

Aerospace firms are leveraging inexpensive local labor in the emerging countries in addition strong new market penetration rates coupled with their proprietary knowledge and core skills help the market incumbents gain a competitive edge over competition.

We will now see how the main actors of this industry take advantage and secure their leadership through outsourcing and offshoring, and how they benefit from these strategies.

## III. How The Industry's Giants Harness The Power Of Offshoring/Outsourcing?

Boeing and Airbus, the two giants of this industry have well observed the rising prospect for growth in China and India. It represents roughly one third of the total demand, 35 000 aircrafts, for the twenty coming years as showed by the market forecast outlook published by the manufacturers for 2013 up to 2032 (*Boeing sources).




Based on this new opportunity for their business, they have been implementing new strategies to maintain their leader's position while optimizing their benefits.

To understand their approaches, it is important to keep in mind that it is highly driven by their own development history and so by their original governance. Boeing is an American multinational corporation created in 1916 and mainly based in the US whereas Airbus is a consortium of European aviation firms founded in 1969 and present in four countries (France, Germany, United Kingdom and Spain) if we do not include its subsidiaries. In January 2014 the chief operating officer, John Leahy declared that Airbus had taken 53% market share in revenue and net order (Sources – The Guardian, Jan 2014 – art *.Airbus claims to have overtaken rival Boeing after record sales in 2013*). But the tendency is often changing from one rival to the other as admitted by the president and chief executive of Airbus Fabrice Brégier.

Despite the background differences of these two companies, it is clear that with the current changes they face, both need to outsource and offshore. They are led by some key forces such as emerging market demand but also oil cost. Therefore even if the emerging market is the biggest market for the future, we should not forget that part of the demand would also come from the developed countries, as they need to replace their old and inefficient aircraft fleet. If we have a look at the US for example, the market forecast is still promising for Boeing: for both North and Latin America more than 10,000 units * are expected between 2013 and 2032 which represents approximately one third of the total demand for the twenty coming years.

Due to the high complexity of the aircraft industry, it is essential for these two planes manufacturers to outsource as it enables them to share the costs and the risks of giant technological changes. To do so they have developed strong partnerships with their key suppliers called the "risk shared partners" (RSP). This policy is more than a winning combination for the leaders as it strongly reduces the costs when the main suppliers, such as Honeywell or Pratt & Whitney, build their own plants and engineering centers in the emerging markets. It is clear that the cost reduction remains one of the main benefits of the offshoring strategy: taking into consideration transportation, complexity of management and risks, the cost of manufacturing remains below by 20/25% compared to the cost if it is produced in developed countries.

However, the horizontal Foreign Development Investment strategy taken by the giants shows that the low labor cost is not the only benefit. As a concrete example, Airbus is progressively expanding a long-term partnership with India. In the upcoming twenty years, India will benefit from a huge rise in the skilled workers and more particularly in the high tech and information technology sectors. Airbus has well understood this opportunity. The company is looking at creating an engineering talent pool using strong collaboration with top Indian engineering schools but also by opening a fully owned Airbus India subsidiary called "AECI" which is specialized in high tech aeronautical technology. This center works directly with all the Airbus sites around the world.

Somehow the changing environment makes their strategies diverge. Nevertheless, there is one part of the activity they tend to monitor the same way: their core competencies. They keep their key skills such as the design, the manufacturing and the assembly of the final aircraft indoor as it represents their added value.

Another major benefit that the manufacturers are considering is the ability to enter this new market. To reach it the manufacturers need to follow some rules that the emerging countries have set, such as some offset requirement for the Indian market or the implementation of a final assembly line in China. Indeed, often local production chains are a key requirement for a new country to accept to work with a foreign airplane manufacturer. The latest example of this barrier to entry in those emerging markets is the implementation of the A320 "final assembly line" in Tianjin, China by Airbus. It was the first time a major manufacturer had fully assembled an aircraft in China. It was a tactical decision to keep one step ahead of their American competitor Boeing while securing the Chinese market. It seems that compared to the Airbus approach on this topic, the Boeing policy is a little bit behind. This current situation may be explained by the history of the manufacturer but also by recent failures that it faced with the huge delays in the production of the Boeing 787 Dreamliner aircrafts since 2007 due to some issues in the supply chain.

As described in the article *The growing role of emerging markets in Aerospace* published by Mc Kinsey, "the industry's globalization remains in its infancy". Therefore, these two giants have implemented short term strategies but are still drawing their long-

term ones.

## IV. Aerospace Industry: Long-Term Strategy And Potential Threats

While the giants take advantage of low-cost manufacturing, the emerging markets begin to accelerate their capabilities development. This is the case of Chinese suppliers which manufacture both fuselage sections for Bombardier, and structural components for Boeing and Airbus. Over the long-term, this situation could bring new competitors with suppliers specialized in one or many areas of the value chain, and could turn the whole industry with extensive collaboration between specialized companies in which each firm would play a key role in the manufacturing chain.

On the short run, the emerging aircraft manufacturers such as Comac for China, do not represent direct competition for the industry giants. The A320 final assembly line in China is a clear example of this current absence of major threat. The technology on this type of aircrafts represents one of the oldest, in addition this company is not yet challenging on the long-haul aircraft.

The changes in the value chain will be accelerated by emerging economies. The Aerospace Industry finds many advantages in China, Russia, and India, such as low labor costs and engineering capacity which allow the main players to focus their capabilities and resources on activities with higher value. Instead of producing multiple aircraft parts in Western plants, Boeing and Airbus are focusing their efforts on R&D and on developing new programs. For instance, engineers work on disruptive technology development with a focus on sustainable issues in Western while emerging countries are doing the tasks supplied by the manufacturers. Indeed, fuel has become the main issue of airline's cost structure, pushing manufacturers to rethink their strategy on the long-term in order to produce more efficient planes while continuously encouraging the sector to follow cost reductions and revenue enhancements in other areas to maintain profitability, but also to answer the expectations of the airlines which are their key customers. This leads to a further specialization of the value chain. Meanwhile, these changes push emerging economies to develop programs that will challenge the market leaders. On the one hand, China, India and Russia use their position of low-cost manufacturers to develop their own companies, taking advantage of their producers' strengths. On the other hand, they benefit of their fast growing internal markets where the demand is going to be wider in a long-term view (passenger aircraft fleet in Asia-Pacific market is expected to be 11,164 in 2032 compared to 4,650 in 2012, i.e. a growth about 140%).

Another key element which explains why the threat in this world market is still low is that the development of an aerospace company is really complicated and requires a set of key criteria. Indeed to succeed in this industry, significant resources are required: capabilities, knowledge and competencies but also huge financial assets. Only few countries are able to make this kind of unavoidable long-term plan due to large entry barriers, and some of the emerging market countries could in the next 20 years. Even though recent examples such as the ARJ21 program developed by China demonstrate that the main actors have a step ahead, the leaders should remain vigilant because Russia, India and China are still in the game. The development of the Chinese aircraft, the COMAC C919, by Comac, or the Irkut MS-21-300 from Russia, are good illustrations of mid-term strategy to take advantage on their regional markets and stop the dependence from Western countries. So even if these aircraft manufacturers are not in direct competition with the two giants of this industry, these aircrafts show that companies such as Comac already represent a threat for the regional aircraft fleet manufacturers such as Embraer or Bombardier. They are able to take part in this struggle in their fast growing internal markets, e.g. internal demand in China for aircrafts is expected to be about 5.000 or 6.000 over the next 20 years. In addition, economic reasons could help the development of the C919 all over the world. It could open the Chinese market for some companies such as British airways or Ryanair. For Russia, opportunity of growth are already emerging due to the current geopolitical situation with Western countries and the retaliations for the Ukrainian crisis. Nevertheless, it will be more difficult for them to beat the main players on the world market, in particular for technical reasons and category differences between the aircraft fleet. The emerging aircraft manufacturers are definitely not playing in the same league. The technology of a C919, which is the Chinese aircraft aimed to compete with the A320 and A321 is still far behind the A350 one.

However, another interesting point that could impact the ranking in aerospace industry and which is very well understood by the big two of this industry is the aging workforce in the United-States. "About 50% of our top engineers and mechanics will be eligible to retire over roughly the next five years" says Dennis Muilenburg, President and COO of Boeing in March 2014. This is a main issue concerning production offshoring and outsourcing that is already taken into account in the strategy of the Western manufacturers. It could send employment abroad. Besides, we said previously that this situation could reduce the control of Boeing in its business, and could globalize it more.

Nevertheless, on the long-term, this strategy can become an issue for the intellectual property infringement as the Chinese engineers are now able to fully understand the complete process of building an Airbus plane. We should keep in mind that China is also looking for the attributes that will continue to define it as a superpower and a strong Aerospace Industry is part of it. Even if an important regional market is growing for this industry, China is looking for taking share of the world market. Therefore, on the long run, China may represent one of the major competitor and lead this duopoly to an end. It will highly depend on its time to catch up its technological backwardness.

## V. Conclusion

Despite key external forces such as increasing oil price and political requirements, the offshoring/outsourcing strategy seems to be at its infancy. The giants of the aerospace industry are still monitoring their policy to improve business efficiency while taking advantage of the global changes. Although the leaders have a duopoly situation, some potential threats which do not seem harmful yet, are existing and could be one of the main issue in the future. In fact, the increasing global fragmentation of the value chain process became a strength allowing to keep a competitive advantage against the competitors. In addition, Boeing and Airbus are way ahead in the industry with their technological advance, their investments in R&D but also the protection of their core competencies. The benefits of outsourcing/offshoring are not easy to assess but if they are

coupled with the key success factors, they could be a sustainable advantage.

Indeed, to keep their competitive edge, the giants are working on disruptive technologies, for example the Airbus Electric Aircraft, which could reshape the whole industry.

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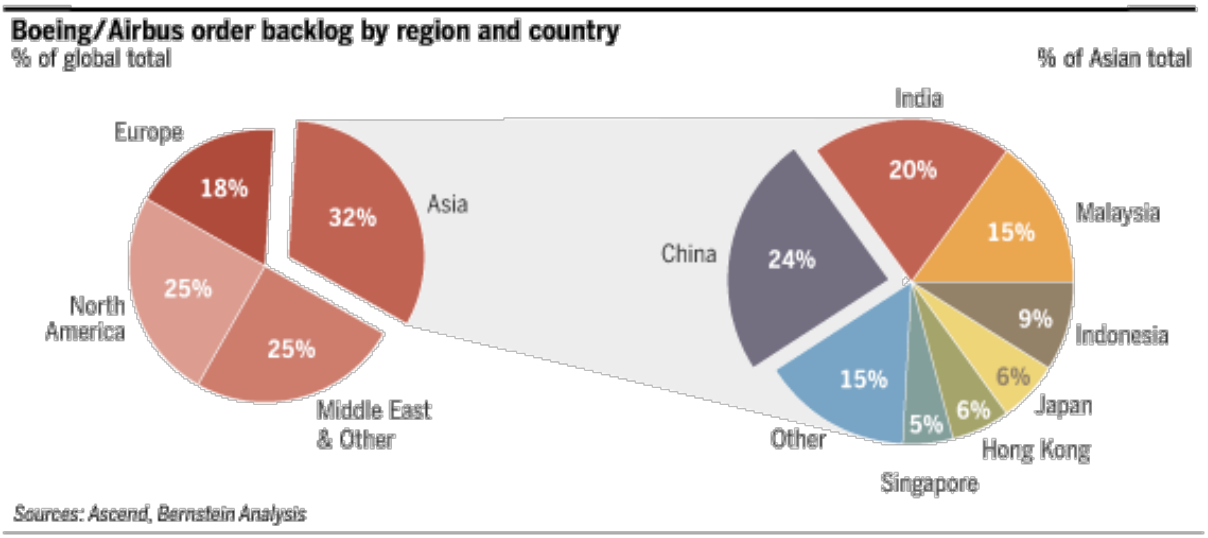
## APPENDIX



# The International Development of a Web Company: Case Study of Uber
# Group 18 @Sophia

**Bénédicte CIOTTI, Yajie DU, Dominique GUNKA, Fabien MALACARNE**

***Abstract* – This paper aims to define the relationships between Internet and globalization through the example of a fast growing web company: Uber.**

***Index Terms* – Application, Internet, Globalization, Uber, Web.**

## I. INTRODUCTION

Internet can be defined as a global network connecting billion of devices (smartphones, tablets, and computers). It is not the same than yesterday and won't be the same tomorrow. Thus, Internet is constantly evolving (technology, services provided, etc.) and everyday growing [1] (number of users & websites, etc.). Its shareholders should be happy with that! Well… that is the main point about Internet. Nobody owns it! It is neither a company, nor a tangible concept.

In the same time, our world became a Global village[2] with strong relationships between countries regarding politics, economics, trade, share of information, etc linking to interdependence. Globalization is about the "compression" of the world. Regarding economics, the international trade increases today faster than the world economic growth and competition has never been so strong arising from the entire world.

Our daily life can only be affected and we definitely believe that Internet played an important role in the spread of globalization within the past 20 years and still does so. For instance, it enables us today to communicate and share information with friends all around the world thanks to Skype but as well through social media such as Facebook & Twitter. It also helps us to consume differently through e-commerce.

Being able to buy again this amazing tea we tried in Japan or to connect with producers from our region in order to directly buy their production [3].

The success of the e-commerce is today undisputable and can be represented by the Chinese website alibaba.com. Specialized in B2B (in opposite of EBay), its recent introduction on

the NYSE bet new records by raising almost $22 billion becoming the largest IPO in the US history[4]. This is definitely a great example of how globalized is our world today.

In this report, we will first try to identify the relationships between Internet & globalization, then we will present the company Uber and show how Internet is at the heart of its international development and finally, we will discuss about the challenges Internet will have to face in the next few years.

## II. INTERNET: A VEHICLE OF GLOBALIZATION

The history of Internet starts in 1966, when Arpanet, a US military project is launched. It represents the foundation of today's Internet and has been introduced to the public 7 years later in 1972 showing for the first time in history 20 computers communicating together. But the term "*Internet"* only came out in 1974. Following several years of development, it is only in 1989 that Internet became worldwide, connecting 25 countries from America, Europe & Asia. It will become accessible to the public 2 years later in 1991 thanks to the World Wide Web (www).

The Internet's takeover of the global communication landscape was almost instant in historical terms: it only communicated 1% of the information flowing through two way telecommunications networks in the year 1993, already 51% by 2000, and more than 97% of the telecommunicated information by 2007[5]. It can also be compared in terms of users. In 1995, the world number of users was only 18 million, it reached 400 million in 2000 and increased by 676,3% in 14 years reaching today more than 2,8 billion people.

Between 1995 and 2000, enthusiasm for Internet was so big that we saw flourishing many "Dotcom companies" introduced on the Nasdaq Stock Exchange. The aim for those companies was to grow big and fast and investment decisions were mostly based on new innovative ideas rather than financial situation. This led to a market crash (*the Dotcom crash*) in 2000 when the Nasdaq composite lost 78% of its value[6].

This has been the first main sign on how much Internet was involved in the globalization process. At this time, investors saw the huge potential through of Internet creating a new market: the entire world but also realized the impact it has.

A few large Dotcom companies, such as Amazon, eBay, and Google survived the crash and have become today industry-dominating mega-firms.

In 2007, when the "*Web 2.0*" expression came out, Internet had already a new face. The Web 2.0 marks a deep revolution in the services provided by Internet: connecting virtually people in an easy

way and enabling them to become actors of the web. Major Websites such as Facebook, Twitter, Youtube, Wikipedia, etc enabled this revolution making communication possible with the entire world. It drastically changed the way of consuming thanks to the peers recommendations, the possibility of comparing prices and products, the availability of international and local products, etc. The massive development of smartphones applications in 2008 only increased this tendency through accessibility.

Today, we can see an evolution of the Web 2.0 with new companies emerging such as Airbnb & Uber, enabling people to exchange services, physically and not anymore virtually. This is dramatically changing several sectors economies by creating new competition, thus new challenges. Competition doesn't come anymore from the same kind of company (an hotel or a taxi for instance), but from new global players.

One of the main concern and belief of this new competition is that it leads to jobs destruction. Let's take the example of the French economy. In 2011, the McKinsey Global Institute reported that 500 000 jobs were destroyed by Internet over the past 15 years but 1.2 million new ones have been created. This represents a net addition of 2.4 jobs for every one destroyed [7]. These figures are confirmed at an international level with 2.6 jobs created for everyone destroyed.

As well, the McKinsey Global Institute stated in 2011[7] that Internet accounted for 21% of GDP growth in mature economies over the past 5 years and almost $8 trillion exchange hands each year through e-commerce. Their research also shows that Internet accounts for 3,4% of the GDP across the large economies that make up 70% of global GDP *(See Appendix 1).*

So we can say that Internet & globalization are intimately linked. Globalization through the opening of economies enabled Internet to develop e-commerce websites such as Ebay, Amazon or Alibaba. These platforms as well as social media such as Facebook & Twitter enabled to connect people from the whole world more rapidly, hence accelerating the globalization process *(See Appendix 2).*

## III. UBER & ITS INTERNATIONAL DEVELOPMENT

Do you know Uber? You must have probably heard of this company in the latest news!

Launched in San Francisco (California), the nest of the Silicon Valley, Uber was the dream of two American guys who wanted to simply connect supply and demand through a digital way. That's how Garrett Camp and Travis Kalanick created in 2010 Uber.

The concept is quite simple, customers and drivers are linked by a Smartphone application. Each time the client requires a vehicle to drive

him somewhere, he will indicate his position on the application and the closest driver will pick him up and bring him to his destination.

Uber is different from a regular taxi company as drivers cannot pick up clients from the streets and it offers different level of services from standard to high quality services with luxury car and several options such as a selection of music and magazines.

As we see, the track of the company is quite short, however the Uber app is already available in 205 cities across 45 countries and 6 continents worldwide (yes, even Antarctica!)[8]. But how did this start-up manage to grow so fast in such short period of time?

First, the concept of Uber is innovative and can be replicated easily to any country and city as it doesn't have to be adapted to the local culture. Second, being an application, Uber can easily and rapidly enter a new market without any charges. Therefore, challenges arise from local regulations that can be solved through lobbying, hence rising entry costs for each new market targeted by the company. Even though no estimation of the lobbying costs for Uber has been made, we can deduce they represent the first or second highest costs for the company right before or after the app development. Indeed, Uber chose to hire the best in order to overcome these barriers: The Franklin Square Group[9] in USA who already works for Apple & Google and Mark MacGann[10] in Europe who was previously the public advocacy for exchange group NYSE Euronext in Brussels.

Even though Uber development suffers from local reglementation, this represents as well an advantage for the company: the free promotion of the company. Indeed, being highly contested by regular taxis, Uber benefits from a great presence on media … for free! Its development model is also based on word of mouth through a sponsorship system.

Regarding the previous information we gave, we can rise the following question: how is Uber financing itself?

Initially, Google Ventures (with $258 million [11]) and Goldman Sachs are the two most important capital providers. Several other prestigious capital venture funds joined later the table: Blackrock, Fidelity and Wellington.

The valuation of the company is at the end of June 2014 around $18 billion and its long-term market value is expecting to raise to $200 billion or more said Bill Maris[12]. To realize the growth valuation of Uber, in January 2012, the company was only valued at $300 million. In comparison with other businesses, Twitter is valued at $19 billion and Linkedin at $16.5 billion, which are both two older big players on their markets.

## IV. INTERNET OPPORTUNITIES & CHALLENGES

As we are wondering how globalization will look like in the next 10 or 20 years (will the world become even more globalized or will this process shrink?), we can ask the same question about Internet and its impact.

What we have learnt from the past years is that large enterprises have clearly benefited [from Internet], but consumers and entrepreneurs are the big winners as states the McKinsey Global Institute [7]. Indeed, Internet became the most powerful tool for young corporations (but not only), through NTIC and globalization. Corporations benefit now of a global audience and are able to find easily new clients, new suppliers, and new markets. Therefore, the penetration rate of Internet at the end of 2013 only represents 39% of the world population, which leads to imagine that this new online market will keep growing, especially in Asia, Africa, and South America *(See Appendix 3).*

Uber bet on this potential increase by implementing its services quickly in many countries (markets) in order to get the first-mover advantage even though profits are not existent for the moment[13].

As Internet can be compared as an open market, competition will significantly increase leading to more choices for the customers and lower costs. Therefore, we can wonder if every country will equally benefit from it or if it will only help mature economies growth. Well, creating websites and applications is today an easily transferable knowledge, especially through… Internet (Udemy is a great example of education through the web)! This potential is now in the hands of governments of emerging countries. Indeed, they will have to develop the right infrastructures (Networks Access Points, 3G, 4G, etc) and the right conditions for customers (access throughout the whole country, competition between Internet providers, etc) in order to let Internet fully profit their economies.

But Internet as we know it today will face challenges as well. The first one is regarding regulation. The recent news poses the following problems (this is of course a non exhaustive list):

- How can every country not suffer from the technology advance of some countries such as the USA through Internet? (as the revelation of Edward Snowden through Wikileaks)
- How can we regulate Internet against racism & terrorism while still preserving freedom of expression? (as the recruitment of jihadists all around the world)
- How can each country take advantage of Internet regarding new competition arising from everywhere? (as the future launch of an app from the city of Paris made for the taxi to

compete Uber announced on the 25th September[14])

Another issue we will face is the management and the protection of personal data also called today "Big Data". It is set that Internet is more than just a tool. It redefines our structure, our corporations and our way to make business and even more personally our way of living. One of the key in our economy is information and its amount is growing exponentially. But where does the limit in our private life stand? The recent
"Health Kit" application released on the new IOS system (Iphone) is the perfect example of this new threat. Indeed, it is easy to imagine that data will be collected by insurance companies and used in order to adjust schemes according to the results available of this app. Customers will be able to benefit from this but insurance companies and more as well…

Finally we can clearly identify that Internet and globalization are interdependent. Both offer new opportunities for consumers and entrepreneurs but also arise several risks, including systemic one. Internet represents a great way of freedom but we personally believe that there is an urgent need of regulation if we want to reduce terrorism and racism spread and don't want to face a new market crash such as the one in 2000.

## V. CONCLUSION

Finally how can we define the relation between Internet and globalization? We talked about Uber so lets use the following image. Internet is the car and globalization is the driver, they are today going together to the same way at the same speed, but globalization relies on Internet and cannot go faster than this one. New competition arising in order to get lower prices and create new products leads to new technologies development, always more connected. The interconnection and this parallel evolution generate a fluctuation very fast of the market, with a lot of revolutions.

Uber is a revolution in the worldwide market taxi but does it represent the future? Probably yes, for the next couple of years, but the globalization coupled with new technology and NTIC represents a constant evolution. Recently driverless car get their licenses in California, companies like Google, Audi and Mercedes-Benz are in the party [15]. We can imagine an application on your Smartphone that allowed you to call a driverless car and to choose your destination and to pay with your Smartphone. Unrealistic? We can already pay with our Smartphone and call a car with an application; the "driverless Taxi" is just a matter of time!

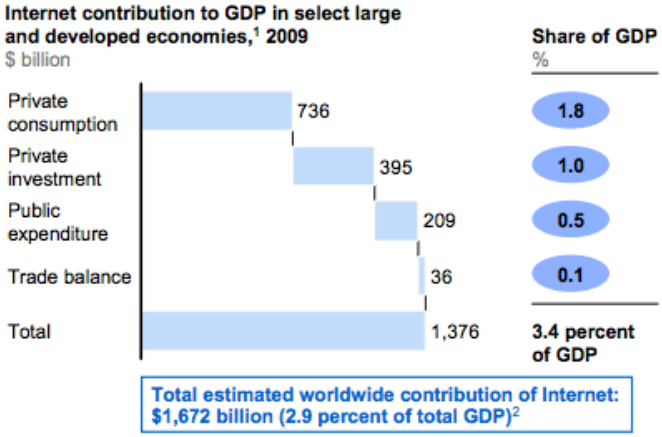
# APPENDIXES

## Appendix 1:



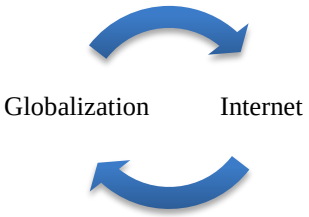
EXHIBIT 1

**The Internet constitutes 3.4 percent of GDP in large and developed economies**

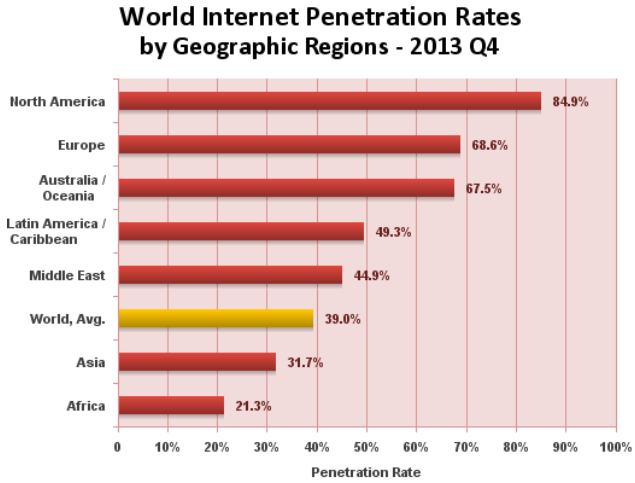



1 We looked at the Internet contribution in 13 countries constituting 70% of global GDP. The countries studied include G8 countries; China, India, and Brazil (emerging countries); and Sweden and South Korea (as they are most advanced countries in terms of broadband penetration).
2 For the rest of the world, we used estimated percentage shares based on Internet penetration in each country.
SOURCE: McKinsey Global Institute, *Internet matters: The net's sweeping impact on growth, jobs, and prosperity*, May 2011

## Appendix 2: The intimate relationship between Internet & Globalization growth




## Appendix 3: World Internet Penetration Rates




Source: Internet World Stats - www.internetworldststs.com/stats.htm
Penetration Rates are based on a world population of 7,181,858,619 and 2,802,478,934 estimated Internet users on December 31, 2013.
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# Global Impact of Economic Sanctions (September 2014)

Camélia Mele, Dmitri Melnikov, Paris-ioannis Sotiriou, Rut Steinsen, Rémy Thellier, and Binglin Yang

***Abstract*—Global impact of economic sanctions have been a hot topic in the media in the past few weeks following the economic sanctions imposed upon Russia by the West. In this report we analyze the history and law frame regarding sanctions as well as exploring global impact of economic sanctions in three different case studies. It still remains an open question whether economic sanction are effective or not which is a little worrying given that the concept has been around since at least the Greek ages. It is vital to understand that economic sanctions are a tool but not a solution, therefore policy makers must continue to search for solutions which will put an actual end to the relevant conflict.***

## I. Introduction

THIS paper will demonstrate different level of global impact of economic sanctions. There are more than 200 examples of different economic sanctions that have been imposed in the world in the past 100 years. Here below are a few examples which are explained in further details in Appendix I.

| Date | Sanctioning Organization | Targetet country | Reason | Type of sanction |
|---|---|---|---|---|
| 1980 | US | Soviet Union | Invasion in Afghanistan | Boycott |
| 1962 | US | Cuba | Nationalization of US property | Embargo |
| 1960 | US | S-Africa | Apartheid policy | Boycott |
| 1951 | US/GATT/WTO | Eastern Eur. | Right of freedom | Jackson-Vanik Amendment |
| 2011 | US | Syria | Incursions and terrorist support | Embargo |
| 2011 | EU | Syria | Incursions and terrorist support | Import bans |

## II. Concept And History of economic sanctions

To study the global impact of economic sanctions, we need to understand economic sanctions and their evolution. According to Jean Marc Blanchard and Edward D. Mansfield, economic sanctions are "a coercive foreign policy in which a state disrupts its normal economic relations with another state in order to (…) induce the targeted state to change its behavior, to generate popular pressure on the government that causes it to change its policies, to provoke a coup or revolt that leads to the emergence of a new government that will act in accordance with the sanctioning state's wishes" [1]. Economic sanctions may be taken against individuals or entities; the important thing is to fight for the protection of democracy and international law [2].

Economic sanctions are historically linked to war and the use of army. Back in the Greek ages, Thucydide reported the first known economic sanction in the "Peloponnesian War": the sea blockade. Athenians had forbidden the access to Attica's ports at the Megarians' citizens which are allied with their enemies, the Corinthians. This sanction, like all economic sanctions between Greek ages and the end of the WWI, was used like another weapon in a war strategy, which was implemented by weapons. The Napoleonic wars can also perfectly illustrate the use of economic sanctions. Indeed, Napoleon after the breach of the peace and facing the superiority of the English fleet was forced to find another way to defeat Great Britain [3 & 4]. He established the "Continental system", proclaimed by the "Berlin Decree" of November 21, 1806, to counter his enemy. This blockade prevented French and their allies to trade with Great Britain and prohibited the sale of goods from Great Britain and its colonies [5].

The beginning of the 20th century marks a turning point in the use of economic sanctions. Since the end of the WWI, they are more regularly destined to avoid the war, even if they have always a cost for the sanctioned country [3 & 4]. The fight against apartheid in South Africa is a representative example of the modern use of economic sanctions. The European commission (EC) (except Germany and Great Britain), Japan and the United States of America (US) have sanctioned and even prohibited the import of certain South African products and the EC (except Germany and Great Britain) and the United States also prohibited the new direct investments. These economic sanctions have not been accompanied by battles between these countries and had more of a political vocation. Indeed, these sanctions have not had a huge weight on the economy of South Africa, but they have allowed the international scene to speak [6 & 7].

Another major turning point came in 1945, with the creation of the United Nations (UN). Indeed, this international organization regularly uses economic sanctions to maintain peace and international security. The role of economic sanctions is redefined by the creation of this organization; they are used to fight, among other things, against money laundering in favor of terrorism, against the proliferation of nuclear or last but not least for the democracy [2].

## III. International Law Frame

It is vital to understand the legitimacy of sanctions according to international law. The aim of international laws is to regulate the implementation of restraints taken by one or more states against another state or several states. In theory, no authorization of an international organization is required.

After the World War II, an improvement of international relations occurred. In fact, many international institutions were established, creating a completely new approach of dealing with international trades, relations, and conflicts. Nations have understood that it is in their mutual interest to promote international cooperation. Nevertheless, such decisions require complex organizations, rules, and restrictions. In addition, in an international environment, it needs a third party, as an international authority to regulate and assists countries in the negotiation process [8]. This brings us to the next point, the foreign policy.

Today, we can identify three main mechanisms of foreign policy. First one is the diplomacy, which involves negotiations between states. In case of failure, the second measure is sanctions, which are often economic or trade sanctions (otherwise known as restrictions). The most common ones are tariff and non-tariff barriers like embargos and quotas. If the two before mentioned mechanisms are not effective the use of military force is required, which is a military threat and the last and by far the worst choice of foreign policy.

In order to use these instruments as sanctions, an international authority should intervene or an international community should accept a taken action by a state. Otherwise, it will be considered as a unilateral aggression. However, that does not mean that it is illegitimate. In fact, a state may have very serious reasons for condemning another one but it must ensure consistency with international laws [8].

Most nations have come to realize that trade barriers enforced by each country are damaging to the international economy. There are several international economic institutions like International Monetary Fund (IMF), World Trade Organization (WTO), and the World Bank which monitor trade barriers.

For instance, WTO's non-discrimination concept underlines the fact that all WTO member countries must treat goods/services from other WTO member countries equally and without discrimination [9]. Similarly, the Most Favored Nation (MFN) refers to normal trade relations. This is a treaty, which enforces same terms to all parties. It is a norm and is the fundamental principal of General Agreement on Tariffs and Trade (GATT).

However, WTO agreement provides exceptions to this rule. In fact, in some situations, countries are allowed to impose higher or lower tariff than normally. Usually, if a country is violating human rights, other members may impose higher tariff for the country which is behind the abuse. This is what we refer to as sanctions. Nevertheless, the country, which is enforcing the sanctions must provide reliable proof of non-compliance. For instance, if a government decides to forbid imports of Chinese toys because they do not fulfil basic health requirements and consequently put domestic citizens' health in danger, it acts under GATT Article XX(b), which states that a country may put restriction on imports if it is considered to damage human health [10]. On the contrary, for example, if a country forbids imports of red tuna from Japan, by saying that it is contaminated by Fukushima accident' radiations and it has not been proven, it acts against the GATT legal principles. In fact, it may first proceed to a scientific investigation about the radiation of the red tuna, which may or may not justify such restrictions.

## IV. Case Studies

One question that can be raised is whether the economic sanctions are in general effective? A study, made by the US Congressional research service in 2006, has shown that they are effective in 36% of the cases, so in fact they do not work most of the time. They can however be successful for modest foreign policy. In other words, it is an alternative to military force but the impact will depend on whether they are unilateral or multilateral. In fact, economic sanctions applied by several states are more effective [11].

This chapter will focus on a few case studies where economic sanctions have been imposed. Please see Appendix I in order to see further examples of economic sanctions and how they have affected world globally.

### A. Syria

#### *A-I. Background*

During the past decades Syria has been subject to global sanctions. These restrictive measures respond to a series of activities supported by the Syrian government concerning international security interests. The most serious of these concerns is Syria's obvious support for terrorists groups, such as Hezbollah and Hamas. Other activities, including the invasion of Lebanon by the Syrian government, its intent to attack with weapons of mass destruction, claims of their involvement in the assassination of the Prime Minister of Lebanon, Rafiq Hariri, and finally sabotaging of international efforts for the stabilization and reconstruction of Iraq, have led to further measures.

In the spring of 2011, the President of Syria Bashar al- Assad and the members of the Syrian government have declared and continue until today a violent operation against unarmed civilian demonstrators in Syria [13]. By April 2014 more than 190.000 people are dead due to Syrian civil war. Moreover, tens of thousands of protesters, students and activists have been imprisoned and subjected to torture and terror. In addition, according to a U.N report, chemical weapons have been used during the conflict in a wide range, even against civilians, including children [14].

According to official figures, more than 6.5 million of Syrians have been displaced, more than 3 million of the Syrian people have become refugees and even more people were left in poor conditions with the minimum supplies of food and drinking water.

#### *A-II. Economic sanctions imposed by EU, US and other countries.*

Many strict sanctions have already been enforced on Syria. The EU, which is Syria´s biggest trading partner, as can be observed in Table 1 on the next page, has imposed travel bans and asset freezes on more than 120 individuals and 40 companies, including President Assad, the Syrian Central Bank and seven ministers of Syrian government.

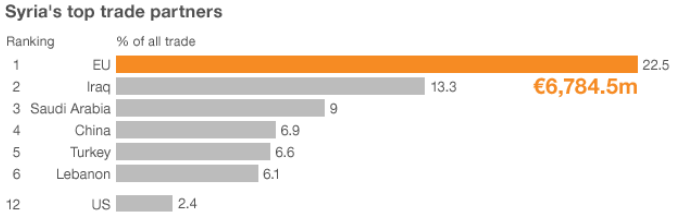


*Table 1*

In 2011, EU banned crude oil and fuel products' imports from Syria, which represent 88.6% of Syria's exports to EU (Table 2) and in February 2012 it blocked trade in gold, precious metals and diamonds with Syrian public bodies and the central bank.


*Table 2*

Furthermore, in August 2011 the President of the United States, Barack Obama, signed a new executive order, imposing sanctions on Syria's energy sector and freezing all Syrian government assets in the United States (US). Moreover in November 2011 Arab League members froze Syrian government's assets in Arab countries, stopped transactions with the Syrian central bank, suspended commercial flights to and from Syria, and also stopped all investments by Arab governments for projects in Syria. However, some Arab states said the sanctions would be difficult to apply.

On November 2011, the Turkish government also revealed its intent to freeze Syrian government's assets and all financial transactions with Turkey.

Other countries like Canada, Australia and Switzerland have also imposed sanctions against Syria [15].

### *A-III Global and local impact of economic sanctions*

The sanctions mentioned above have a significant impact on the global economy, and more specifically on the international movement of goods. Any deals with Syria will have to be carefully controlled in order to ensure that companies are fully in compliance. In order to prove compliance, companies need to show that they have trained staff, that policies are maintained and updated every time sanctions change and in general ensure that compliance procedures are constantly implemented and reviewed [16]. More specifically, potential purchasers of crude oil and petroleum products will need to check their origin in order to make sure that they do not violate the prohibition on purchasing such products exported from Syria. In addition, in question companies may face difficulties in proceeding payments to Syrian counterparties via European Union (EU) banks and with US dollars and they are obliged to use a non- EU based bank to proceed in further payments according to their contracts. Finally, many EU ship owners are unwilling to offer their ships for charter to transport oil and petroleum products with the fear of a non-adequate control [17].

However it is clear that the economic impact of the sanctions are by far the most on Syria. More than 50% of Syria´s workforce is unemployed with over 2.3 million jobs lost in the past few years. Agriculture is becoming an ever larger proportion of their GDP, already accounting for more than half of it and since 2011 the estimated loss of the economy is estimated at USD 103 billion according to the UN. [43].

## B. Russia

### *B-I Background*

Russia lost Ukraine as an important and strategic ally earlier this year. Ukraine´s pro-Russian President, Victor Yanukovych, denied to sign an agreement with the EU and the population of West Ukraine revolted against him and drove him out of the country in February. One month later pro-Russian Ukrainian militants took over the Crimean peninsula and since then Russia has helped them directly and indirectly to increase Russian influence of eastern Ukraine. This has upset the interim and the newly voted government of Ukraine as well as a large part of the developed countries in the world, prompting them to install increasing sanctions on Russia that has responded back with their own sanctions. From Russia´s point of view it was the will of the people in the Crimean peninsula which concurred as they wanted to belong to Russia instead of Ukraine.

### *B-II Economic sanctions imposed by Russia and counterparties*

Soon after Victor Yanukovych fled the country and a new interim prime minister was introduced, the Russian government increased the cost of gas to Ukraine by 81%, making it the highest price to any European client. Russia claimed the reason being pressure to push Ukraine to pay it´s already high gas debt. This move was the first sign of economic sanction towards Ukraine to punish the new government and to weaken the public opinion [28].

The government of Ukraine did not give in to the pressure from Russia and signed a trade agreement with EU this summer which will be implemented in 2015 [25].

Due to Russia´s involvement in Ukraine which included supplying weapons and direct army support to the pro-Russian militants and the accidental hit down of Malaysian aircraft over territory controlled by pro-Moscow rebels in eastern Ukraine, the EU announced their first economic sanction on the 30th of July, targeted directly at Russia´s state finances, energy and arm sectors. In addition to this, a handful of senior Russian officials were now subject to Western asset freezes and travel restraints. According to the European Council those targets were considered "materially or financially supporting actions undermining or threatening Ukraine's sovereignty, territorial integrity and independence". At the same time US imposed sanctions on Russian banks and a shipbuilding company, with state ownership of above 50% with the same arguments.

Russia reacted by enforcing a one year full embargo on a very wide range of food imported by Russia from EU, US, Norway, Canada and Australia [27].

Since Russia´s involvement has been increasing in east Ukraine with increased military support, the EU and the US put new sets of sanctions on the 12th of September. Those included the Russian oil companies Rosneft and Transneft and the petroleum unit of state gas monopoly Gazprom by restricting their access to financial markets. Visa bans and asset freeze on certain Russian officials and entities were also included as well as restraints on the army sector. Russia has announced that they will respond and possibly with restrictions on Russian airspace, embargo on Western cars or/and western clothes but have yet to implement further sanctions [26]. In addition to the EU and the US other countries have also imposed various degrees of economic sanctions on Russia like Canada, Japan, Australia, New Zealand, Norway, Albania, Iceland, Montenegro, Switzerland and Ukraine [23].

### *B-III. Global and local impact of economic sanctions*

It is evident that the impact of business restrictions between Russia and their sanction counterparties will bear effect,


*Table 3 [20]*

mainly on the euro zone, Ukraine and Russia but also in other countries. In Table 3 above, Russia´s import and export figures for 2012 are depicted, revealing Russia´s biggest trading partners as the EU, China and Ukraine. Trades between the EU and Russia accounted for $400 billion in 2013 with a large part of Russia´s export being oil and gas export [19]. With regards to Ukraine then they are very dependent upon Russia in terms of gas supply, they already have enough supplies until December but then they might face a shortage which means suffering in -20 temperature during the winter.

It varies how much effect the sanctions have on different countries within the EU. Germany is Russia´s largest trading partner within the EU. According to the Association of German Chamber of Commerce (GCC), Russia´s share of Germany´s total export is about 3% but in Germany roughly 300,000 jobs in 6.200 companies are partly dependent upon export to Russia as it is Germany´s tenth largest trading partner with annual exports of 36 billion euros [19]. Germany imports products worth of 40 billion euros from Russia with more than 30% of its oil and gas supplies coming from Russia. The German economy was suffering on the second quarter with GDP reducing by 0.2% compared to 0.7% growth in quarter one. The situation in Russia might explain some part of this slowdown in the German economy according to the GCC [32].

Even though Germany is Russia´s largest trading partner within the EU, the situation also affects other euro zone countries with Russia accounting for 4-5% of the bloc´s total exports. In the second quarter of the year, EU´s GDP grew by only 0.1% as compared to 0.4% in the first quarter excluding the effects of the Russian food embargo which was imposed in August after the end of second quarter. Economists are also worried that a prolonged difficult situation in Russia might have weakening impacts on the euro as well as having negative impact on overall business confidence and investments within Europe [31].

Last year Russia imported food worth of $1.3 billion from the US and 11.8 billion euros from the EU. The imported products included in the Russian embargo represents 5.1 billion euros annually. Food producers in Poland and Netherlands are already experiencing the impact of the embargo and the European commission is searching for ways to compensate the farmers and/or helping them to find new channels for their food products. This means increased competition on other markets and lower prices for the companies in the involved countries which will hurt their financial results [19 & 29].

Countries outside the EU, which have imposed sanctions, will not be affected on the same scale since their trading with Russia is not as great proportionally. Then there are other countries that will actually benefit from the situation as Russia will be directing their business towards them. Overall it is impossible to say exactly how much financial impact the sanctions will have on different countries, but it seems that it will not have detrimental effect on any country although Ukraine is quite heavily dependent upon gas and oil from Russia.

Russia is the country being targeted and where most of the impact will occur. As was shown in Table 3, EU is by far Russia´s largest trading partner so any business restriction between the EU and Russia will have negative impact on business in Russia. On top of that the whole world is watching, affecting the Russian ruble, as well as Russia´s Country Default Spread (CDS).Table 4 below, represents the 15% weakening of the Russian ruble in just over a year and


*Table 4 [21]*

Table 5 on next page, shows the rising CDS spread on Russia, up from 2.5% in January to 3.5-4% in September. The CDS plays a vital role in credit terms being offered to Russia and

Russian companies both in terms of refinancing needs as well as for funding for new investments [21 & 30].

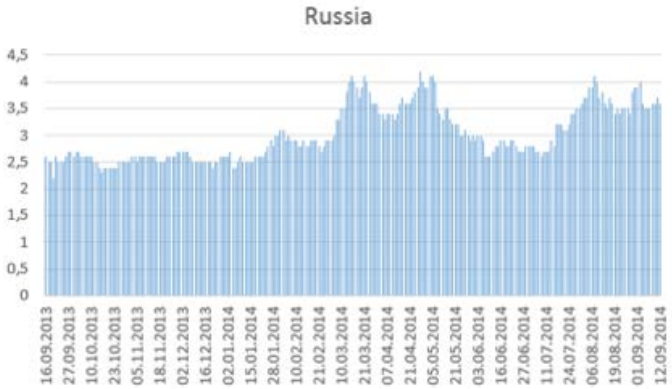


*Table 5 [30]*

This year alone capital worth of $75 billion has left Russia, foreign direct investment is diminishing and the economy is stagnating with first quarter figures for Russia showing stagnation of 0.5% and second quarter staying flat, avoiding Russia from technical recession [18]. Those are just the first signs of recession as the economic sanctions against Russia were only imposed in July.

However if we look at Russia´s point of view then they are enforcing local food production and directing their business towards the East. They have recently signed a 30 year long, $400 billion, deal with China to support them with gas in the future. The Chinese have already agreed to prepay a large part in order to finance the pipelines that need to be built so that Russia can deliver on approved quantity. Also worth mentioning, Russia is considering accepting the Chinese currency, Yuan, as a payment for the gas which shows that Russia might be moving away from doing all gas business in dollars as has been the case with almost all gas and oil business in the world. This is a trend that is going to be very interesting to follow in the near future and goes to show that Russia is focusing on diversifying their trading partners as well as enforcing their own production in order to be less dependent upon the West.

All in all, the global impact of the economic sanctions towards Russia can be found widely although not considerably. It affects countries differently in terms of scale but it will certainly impact the perception of doing business with Russian counterparts. The country that will be hit the most will always be Russia. It will affect citizens of Russia greatly in terms of merchandise offering, price inflation coupled with weaker ruble and more isolation from the West. How this economic war will end remains to be seen. Only time will tell whether the West and Russia will come to an agreement or if it will depend on new presidents to be elected or perhaps something else?

## C. North Korea

### *C-I. A unique economic situation*

For almost 70 years, North Korea has been one of the few examples of closed off countries in the world. Thus, its economy is also very particular: by being ranked 198th country in the world in terms of GDP per capita in 2011, North Korea can be considered as one of the poorest country in the world [33]. Added to that, most of the trade and capital flows are limited to their bordered countries such as South Korea, Russia and for a very big part China. In fact in 2011, 67.2% of North Korea´s export were going to China and 61.6% of imports coming from China. Those business trades are made through specific economic zones such as Kaesŏng and Kŭmgang-san which are located near the North Korea's frontiers to allow free trade [34]. As a result, there is a high dependency between North Korea and China.

North Korea cannot really be defined as part of the globalized business world. For instance in 1984, they defaulted on North Korean bonds which had been sold on the worldwide market in the late 70s [35]. If the country could be at first glance considered as regionalized, everything changes when their huge black market is taken into consideration. In fact one of the most globalized aspect of North Korea is their controlled substances and counterfeit money industries. For example, the Crystal Methamphetamine business not only led to a major national health issue [36] but the narcotic is also exported all around the world by global mafias supported by the North Korean government and its official representatives [37].

### *C-II. The sanctions*

Despite the December 31th 1991 agreement between North and South Korea on a nuclear ban, North Korea has spent the last 20 years working on weapons of mass destruction including nuclear missiles. The nuclear tests of 2006, 2009 and 2013 had a huge diplomatic impact [38]. To end the North Korean nuclear program and military threats, economic sanctions have been imposed by the UN at first.

The first axis of sanctions concerned the imports and exports of arms and nuclear weapon-related technology, which have been banned, as well as luxury goods. China joined lately the UN to sanction North Korea which put a political pressure on North Korea as they are the only country to have real economic impact given how large of a trading partner they are with North Korea.

The second one was targeting banks dealing with North Korea. This particular decision had a global effect on the country. As an example of that was when the Non-Governmental Organization (NGO) was trying to help the North Korean citizens, then they were unable to continue their project due to their inability to transfer money to the country [39]. That led to a terrible situation for the population facing famines and epidemics.

The last kind of economic sanctions were taken against leaders of the North Korean regime and the head of the global mafia in North Korea [40]. For instance, the EU took measures against few North Koreans such as Yo'n Cho'ng Nam, who is Chief Representative for the Korea Mining Development Trading Corporation, such as freezing funds and economic resources [41]. In the past few years this kind of sanctions have often been chosen.

### *C-III. The limit of sanctions*

The common point with all of those sanctions is that none of them had a big effect on the government's policies. Also, there were almost no global economic impacts. Due to trade with China and the size of North Korea´s black market, North Korea does not rely heavily on other countries in terms of business trading partners which therefore gives other countries little economic leverage towards North Korea. North Korea's government has also shown lack of reaction even though its population is highly affected by sanctions imposed upon the country.

For this specific case, targeted sanctions on the government and the black market leaders seem to be the most logical decisions to take, even though they have not have been very effective so far. In fact, to maximize the effective impact of economic sanctions, the targeted country needs to rely on other countries up to a certain degree and should respect the same international rules.

## V. Conclusion

We have demonstrated that global impact of economic sanctions can be considerable, both for the country being sanctioned as well as its trading partners. It is apparent that the more globalized, the sanctioned country is, the more impact the sanctions will have both on the targeted country as well as worldwide. In the different case studies we have shown that imposed sanctions can impact citizen´s everyday life greatly as well as economically. The goal of economic sanctions is to change countries' behavior in a certain way and the odds of achievement increase with globalized trades between relevant parties.

There are also examples of sanctions being imposed on countries where no intra-trading exist which can be interpreted as a sign of countries political views which they want to demonstrate publicly.

In a nutshell; imposing economic sanctions is the modernized and sophisticated way for countries to demonstrate their disagreement with another nation's behavior. We used to have traditional wars now we have economic wars. The results and impacts will vary just like before, but at least the results will not be measured in terms of lost lives.

## Appendix

Appendix 1 (See page 8)

## Acknowledgment

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Appendix 1

| Date | Sanctioning Organization | Trageted country | Reason for sanction | Kind of sanction | Nature of sanction | Impact of the country | Global Impact Result |
|---|---|---|---|---|---|---|---|
| 1980 | US | Soviet Union | Protest against Soviet invasion in Afghanistan | Boycott | Boycott the Moscow Olympics; 65 nations refused to participate in the games | Very low (Less participants to Olympics games), Soviet-Afghan war continued until 1989 | Manifestation of difficult relations between the United States and the Soviet Union in the early 1980s |
| 1962 | US | Cuba | Nationalization of US corporations' property during the revolution (1959) | Embargo | Prohibiting foreign-based subsidiaries of U.S. companies from trading with Cuba, travel to Cuba by U.S. citizens, and family remittances to Cuba | Limitating country economical development | Less world wide wide opportunities |
| 1960 | US (US General Assembly) | South Africa | Apartheid policy separating the races | Boycott | Desinvestment from South Africa: US companies divested themselves of South African (significant impact only in 1980) | Outflow of capital; decline in international echange rate of South Africa currency | Decrease of global investment in South Africa |
| 1951 | United States under GATT/WTO agreements (Most-favored-nation) | All communist countries (except Yugoslavia) | Countries denies its citizens the right of freedom of emigration | Jackson-Vanik amendment (SuspendMFN status as long as the country denies freedom) | Generally, higher rates; so, imports from non- normal trade relations country are higher and creates a significant price disadvantage | Suspended MFN status as long as the country denies freedom/Jackson-Vanik amendment | More freedom of emigration and promotion of democracy. New WTO members Promote fair trade relations |
| 2011 | US | Syria | Violent crackdown in Syria,cross-border incursions into neighbouring countries and support for terrorist organizations | Executive Order 13582- Embargo | Freezing all assets of the Syrian government, prohibiting US persons of doing business with the regime, ban on imports of Syrian petroleum products | Hyperinflation- fall of Syria pound to 1/6 its prewar value and foreign currency reserves estimated to be between $2 and $5 billion, down from $18 billion | Decrease of global investment in Syria |
| 2011 | EU | Syria | Violent crackdown in Syria,cross-border incursions into neighbouring countries and support for terrorist organizations | Import bans | Bans on crude oil and fuel products imports, which represent 88,6% of Syria's exports to EU | Weakness of Syrian economy, GDP fall between 50 and 80 % in 2012 | Difficulties with dealing and trading with Syria, strict compliance policy |

# Globalization

## How healthcare systems are challenged by hyperglobalization

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## Table of contents



## Introduction

There are nearly 200 countries worldwide which all have different healthcare systems, however only about 40 of these have developed health systems. Most of the others have not developed a homogenous health care system for the whole country due to difficulties in organization and lack of financial aid. One does not need to examine each of them to get an overall picture of health systems and to be able to analyze the impact of globalization on health care.
In general we differentiate between four systems, however the Beveridge and Bismarck system give the historic foundation for the others.

The Beveridge model is the socialized medicine model designed by William Beveridge for Britain. The government through tax payments finances health care. Countries using this model include Spain, New Zealand, Scandinavia and Cuba and so on.

The Bismarck model by German Chancellor Otto Bismarck is a security model in which every person has coverage. This insurance system uses so called sickness-funds that are funded jointly by the employers and the employees. One can find this system being used in France, Belgium, Netherlands, Japan, Switzerland and Latin America.

The National Health Insurance model is founded in Canada, but also implemented by countries like Taiwan and South Korea. This model is a mix of the previous two models. The providers are private sectors but payments are from government-funded insurance programs in which all citizen pay.

Another version is the Out-of-pocket model that can be seen in the United States. The main feature is offering the health care service to society as a product by commercial insurance companies. How much one should pay when using the service depends on the purchased insurance level. The Government is only responsible for the basic medical insurance of minorities. This system is flexible and provides a variety of services, but it also has drawbacks as not being fair and due to high expenses.[1]

The question we dealt with during the preparation of our report is how hyperglobalization impacts on health care systems and what challenges are involved?

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## Health insurance problems

Over the years we saw that each health insurance system has faced problems of different nature. Even if both models are anchored in each country's culture they are increasingly criticized by public opinion in their own countries and are confronted with realities that they need to take into account.

The Bismarck model faces three major problems that challenge its sustainability. Everywhere in the world technical improvement has changed how people are treated in health care and how they take care of themselves. It also raised the price of medical services as well as medicines. Besides, the average age of workers financially contributing to the sustainability of that system is decreasing while retired ones are increasing. Lastly it seems that doctors entitle their patients to more medicine than in the past although health expenditure regulation is seen as more and more important. All those reasons tend to climb up shortfall regarding health care system in these countries.

The opposite so-called Beveridge models face different sustainable problems. Even if their culture's country is not to turn it into a Bismarck model the growing gap between the richest and poorest has led to a fairer system that takes into account the health need of the more precarious. The example of the USA highlights the appearance of a new model based on universal health coverage.[2]

Unlike developed countries most of developing countries can afford to improve their health care system situation. Whatever their level of advancement in building it the poor state of their health care system is still described as an inequitable arrangement for social protection by the World Health Organization.[3]

## Medical tourism

Per Definition medical tourists use medical services by travelling to a given international destination outside their home country[4].
The challenge for the local medical sector today is a highly competitive market when it comes to medical treatments. Top destinations for medical tourism include Costa Rica, India, Israel, Malaysia, Mexico, Singapore, South Korea, Taiwan, Thailand, Turkey, and United States.[5]

If one takes the U.S. market for example, rising numbers of medical tourists are recorded due to increasing healthcare prizes in America. In 2012, 1.6 million US citizens have travelled abroad for medical care.[6] Favored countries for U.S. citizen medical tourism are Asia and Latin America.[7] The same situation is seen in other developed countries, where increasing costs for medical expenses, low priced air travels and the high standard for cross border medical training encourage rising medical tourist rates. According to Deloitte the US demand for cosmetic

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[2] WHO, 2014, Health systems topics, accessed on 20th Sept 2014 <http://who.int/healthsystems/topics/en>

[3] OECD, 2011, Bismarck vs Beveridge : is there an increasing divergence between health financing system ? Accessed on 20th Sept2014 <http://oecd.org/dataoecd/19/4/49095378.PDF>

[4] NaRanong, A & V, 2009, The effects of medical tourism: Thailand's experience, accessed 20 September 2014 <http://www.who.int/bulletin/volumes/89/5/09-072249/en/ > World Health Organization Web services 2011

[5] Patients Beyond Borders, Medical Tourism Statistics & Facts, accessed 20 September 2014 <http://www.patientsbeyondborders.com/medical-tourism-statistics-facts>

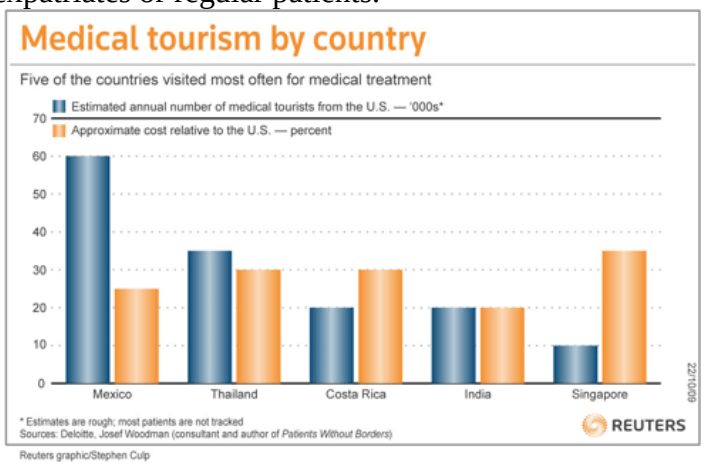
[6] Keckley, P, Underwood, H, 2014, Medical tourism:updates and implications, Deloitte Center for Health Solutions accessed 21 September 2011<http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20assets/documents/us_chs_medicaltourism_111209_web.pdf>

[7] Reuters staff, 2009, Graphic : Medical tourism by country,< http://blogs.reuters.com/from-reuterscom/2009/10/28/graphic-medical-tourism-by-country/>

surgery is stable and an increased globalized workforce tends to visit their home countries and taking procedures there.

Medical tourism is a challenge for every country to improve their health-care infrastructure but also an advantage since medical tourists are identified to aim at more costly health treatments than other patients such as expatriates or regular patients.

As a result this leads to increasing profits for the country that offers these services. However there is a trend for rising medical charges due to medical tourism and therefore rising expenses for locals and decreasing accessibility to high quality hospitals. In order to prepare for rising medical tourism, countries like Thailand want to introduce a tax on medical tourism. The revenue will be used for improving the training of medical staff.




The estimation of growth of the medical tourism market goes up to 25%. The highest rates are estimated in Asia. There is a growing need for international accreditation of hospitals.

## Black market

The black market for organ trafficking is seen as the consequence to a rising demand in developed countries.
The number of patients waiting for an organ outnumbers the number of organ donators in the domestic markets in Europe and U.S.
The inequality of wealth distribution also adds to the black market trade for organs and medical services. For example India is known for its black market for kidney transplants. Patients are willing to pay about 25000US $, whereas the donor will only receive up to 2000$. Most of the payment will be divided among the kidney broker, the surgeon and the hospital.[8]
In China a general practice is to use organs from executed prisoners.[9]

## Increasing mobility of health professionals across borders

The phenomenon of professionals moving cross borders is obvious along with the liberty working regulations of a more open world. The reliance on foreign workforce between one country and anther can display the significant but diverse magnitude of this mobility. In United Kingdom, there are 36.8% foreign trained doctors in total and they are still recruiting doctors from other nations. In Ireland, almost half of the medical doctors are foreign trained, and in Italy, the percentage is exceeding 10%. Other countries, foreign workforce in health-care system is uneven which is around 5% or less than 1%.

[8] Shafer, M, 2011, Medical Exploitation and Black Market Organs: Profiteering and Disparities in Global Medicine, accessed 21 Sept 2014 <https://cbhd.org/content/medical-exploitation-and-black-market-organs-profiteering-and-disparities-global-medicine> The center for bioethics and human dignity web services

[9] Hudson, K, 2008, Globalization and the Black Market Organ Trade: When Even a Kidney Can't Pay the Bills, accessed 21 Sept 2014 <http://dsq-sds.org/article/view/143/143> Disability studies quarterly web services

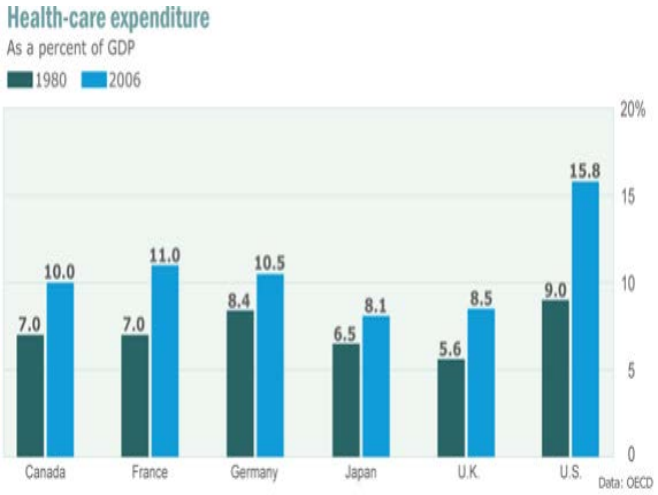
In European Union in 2004 and 2007, 12 new countries have been added providing more flexibility to move between borders. This flexibility and the intention to leave made a joint active to the enlargement of the flow between EU states.

Every coin has two sides, the "shortage of relative workforce" crisis along with this mobility phenomenon. In the other way around, this mobility impacts on the health-care performance as well. For sure, the exchange between workforce in terms of knowledge, research experience and technology can bring improvements in the whole field, but this enlargement hasn't been located equally, which could lead to an out-of-balance. The more competent professionals join those societies with better healthcare conditions that will leave the disadvantaged nations in a more difficult situation. For example Africa who carries 25% of the world's burden of disease and whose population only accounts for 10% of the world.

From the factual figures from who we can tell it's reasonable to worry about the crisis of human resource" in health industry, in 2011, 50% of the world's population lived in a country where there was less than one psychiatrist to serve 200 000 people. Globally, there were 5.8 nurses working in mental health per 100 000 population.[10]

Several reasons are behind the global movements of health professionals. The policy changes and international framework should be the fundamental reason, which bring the possibility of every other subsequent movement.

Policy changes and reforms were differently implemented in different countries, such as 20th century's reform in United States, and also happened between nations, such as OECD's reforms in order to amplify healthcare performance. Living standard raise the world's attention as economics grow due to globalization, health-care serving as one indicator that account for 10% of the GDP of one nation. Undoubtedly, money is one catalyst of professional's willingness to leave from one country to another if they can be paid two or three times more than in their own nation.[11]




What we know for sure is that the global mobility of health care has been increased and the extent of globalization is going deeper and deeper, but how this mobility would evolve is still in question. Here we take 4 considerations.

First and foremost is the workforce shortage situation we mentioned above.
Second, Europeanization. Although the world is moving forward as a whole, but there are still geographical and cultural reasons that unconsciously lead the European countries to develop and meet more requirements of healthcare. The remote areas are still lacking behind.

[10] Christoph Aluttis, Tewabech Bishaw, and Martina W. Frank (2014), The workforce for health in a globalized context – global shortages and international migration, accessed 15th Sept 2014 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3926986/>
[11] Howard Oxley and Maitland MacFarlan, Health Professional Mobility and Health Systems-Evidence from 17 European countries, accessed 24th Sept 2014 <http://www.oecd.org/tax/public-finance/33717721.pdf>

Third, growing reliance on foreign workforce due to technology and resource insufficiency. Under-capability issues might be one reason leaving one country with no choice to depend on another.

Ethical consideration may prevent intelligence flowing abroad when doctors struggling between chasing more interest or stay domestic contributing.

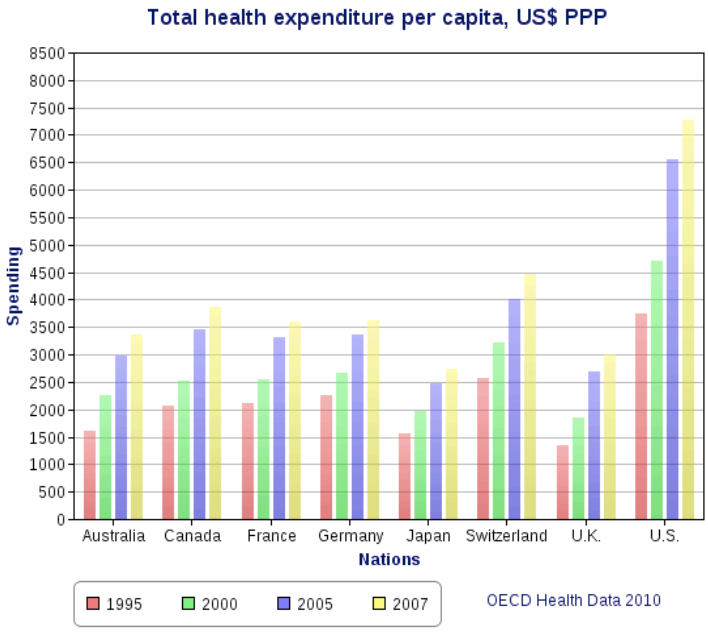
## Political Reforms

If globalization offered to developed countries to improve life standards, some negative side effect emerged also. Healthcare system expenditures are increasing in each of them due to the general life expectancy augmentation, which involve not only a growing population but also an aging society. States face to significant raise of total health expenditure per capita since 1995 (figure 1). Since twenty years now they tried to answer this state of affairs using different type of political reforms as they have different healthcare systems.

Recently one of the most debated reforms was the one initiated in USA in 2010, the Patient Protection and Affordable Care Act, also known as Obama Care. As the most important reform in 40 years[12], the goal here was to insure a minimum level of medical support to every citizen.

Of course it should benefit first to the poorest part of the population, 46.3M out of 300M[13]. However this reform will have a negative effect on public spending and should count for 12% of the GDP in 2050 against 4% in 2007[14].

In Germany, France and Western Europe in general but UK, the purpose is different. Indeed people in this area are widely covered by universal healthcare. Moreover added to the increasing life expectancy, free population flows within EU also contribute to growing expenditures and deepening deficit. So every taken reform tend to constraint them using different methods; lower public financial support, higher taxes, incent people to subscribe to private health insurance, limit wages increasing in the public sector[15] [16], etcetera.




[12] BBC News (2010), Q&A: US healthcare reform, accessed 15th Sept 2014 <http://news.bbc.co.uk/2/hi/americas/8160058.stm>
[13] Jessica Smith and Carla Medalia (2014), Health Insurance Coverage in the USA : 2013, accessed 16th Sept 2014 <http://www.census.gov/hhes/www/hlthins/hlthins.html>
[14] BBC News (2010), Q&A: US healthcare reform, accessed 15th Sept 2014 <http://news.bbc.co.uk/2/hi/americas/8160058.stm>
[15] Olga Kazan (2014), What American Healthcare Can Learn From Germany, accessed 17 Sept 2014 <http://www.theatlantic.com/health/archive/2014/04/what-american-healthcare-can-learn-from-germany/360133/>
[16] Gérard Horny (2014), Réforme système de santé, accessed 17th Sept 2014 <http://www.slate.fr/story/85935/reforme-systeme-sante>

Finally in the UK, over the past fifteen years most of the reform focused on prevention and medical rendez-vous delay reduction. But in 2012 a major reform the Health and Social Care Act 2012 was voted. Here again the main goal is to regulate healthcare expenditures by lower the cost of practices thanks to anti-competitive practices guard[17] and adjusting public budget to medical centers.

## Financial sustainability in health systems

Due to globalization, it is much more challenging to keep health care system financially sustainable. Nowadays, advances in technology, aging population, increasing mobility and medical waste are the main challenges of financial sustainability in health care systems due to globalization.

On the one hand, the phenomenon, which, a large amount of young people work abroad and rich people settle in foreign countries cause a reduction in tax to reduce the country's fiscal revenue. On the other hand, the rising cost of health care system due to advances in technology, the relevant technology updated to use in health care system nowadays and population aging causes a big pressure for the countries. Aging people who stay in their own countries need more and better health care with the reduction in the fiscal revenue. It is difficult to balance the rising health care cost against the tight government's finance especially under the global crisis environment.

Furthermore, as we all know, a good technology innovation may reduce costs by improving civics' health, but for the previous preparation, it may be a big deal to do R&D. For a government, it must take a sustainable decision to balance this situation and have a good strategy to develop the countries' health care system. How much the government should pay for the health care system depends on the benefits the country gains from health spending among others' sector costs and the amount the civil could undertake and are willing to pay.[18]

Another thing need to be considered is that, due to globalization, how government deal with the foreigners who work or study in their country and immigrants. The question arises which role the country should play concerning this topic.[19]

Finally, we can see from a lot of data that there is a big waste of human sources and medical supplies. For instance, we can see the increasing waste in US health care system in 2011. Total health care spending estimated at 2.687 trillion dollars while the waste was up to **1.263**.[20] Developing a strategy to improve the performance with the existing budget constrains would be a big global issue to improve the living standard all over the world.

## Aging societies

The world's population trend towards an elderly population should be viewed as a driver for pension reform[21]. Rising health-care costs are more difficult to deal with, largely because of

[17] Anita Charlesworth, Dr Judith Smith and Ruth Thorlby (2013) The coalition Government's health and social care reforms, accessed 18 Sept 2014, <http://www.nuffieldtrust.org.uk/our-work/projects/coalition-governments-health-and-social-care-reforms>

[18] Thomson, Sarah, Foubister, Thomas, Kutzin, Joseph, Permanand, Govin and Bryndová, Lucie (2009) Addressing financial sustainability in health systems. Policy brief, 1. World Health Organization on behalf of the European Observatory on Health Systems and Policies. <http://www.president.bg/docs/1352304349.pdf>

[19] Tesink, G, European Legislation Covering Healthcare Waste Management, accessed 20 Sept 2014, <http://www.ta-hcw.rs/resurs/traingandreports/eng/04JGT11021llegislation.pdf>

[20] Donald M Berwick, MD, MPP; Andrew D. Hackbarth, MPhil JAMA. Eliminating Waste in US Health Care, 2012;307(14):1513-1513. Doi:10.1001/jama.2012.362 <http://jama.jamanetwork.com/article.aspx?articleid=1148376>

[21] Estelle James (Consultant, World Bank),Alejandra Cox Edwards (California State University, Long Beach) and Rebeca Wong (University of Maryland),The Gender Impact of Pension Reform, accessed 20 Sept 2014, <http://www-

rising demand for services and an ageing population.

Aging population and globalization lead the developed countries toward lowering the standard of national health care. First, the world's population of people aged over 60 will double from 11% in 2006 to 22% by 2050[22]. Second, the patients can longer because of the medical progress. Last but not least, such an exploding population of elder people is looming budget crisis.

With globalization and scientific advance, the expensive new medical products and medical services are increasing by the year. Rapid expansion of health care market is changing the cost-benefit model of R&D in medical technology[23], the big companies that usually invest billions have to take a huge risk in order to boost the invention and innovation, through Intellectual Property Law to guarantee producers getting the monopoly price to cover the R&D cost. However, the price of new medical products will continue to be high. Developed countries always insist to the medical policy that elder people also access to the latest treatment technology. It drives the costs of ageing populations strain a country's economy.

If it's not fewer workers who pay for the tax at the same time[24], Europe, Japan and America can handle the crisis in the medical field. There might be a political crisis in almost all developed countries because the medical expense rockets upward. One thing might be sure: "The risk of social and political upheaval could grow throughout the developing world even as the developed world's capacity to deal with such threats declines."[25] How to figure out the medical insurance policy of aging population will be more and more urgent and how to find a way to help elder population to keep standard of living maybe by using robot nurses and new technologies.

## Conclusion

Every country faces some internal problems no matter which model they follow, nowadays it is changing the way they provide public health insurance.
Among others we are facing an increasing life expectancy and aging population in the next years almost worldwide, due to the technological improvements mostly caused by globalization amongst others and accessibility of medical care in all developed countries.
The black economy also is part of that issue with more and more medical tourism in countries with better cost-benefit ratio, challenging home countries with the urge to provide better health care at lower rates.

Moreover the rising mobility of cross border professionals is not a solution, because it leaves some countries with a lack of domestic health workforce due to their political and financial situation.

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wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/06/05/000425970_20120605125536/Rendered/PDF/693210ESW0P0900der0Differentiated0I.pdf>

[22] Jane Parry,Jan 2010,network of cities tackles age-old problems, accessed 20 Sept 2014, http://www.who.int/bulletin/volumes/88/6/10-020610/en/,world health organization

[23] Gabriel I. Barbash, M.D., M.P.H., and Sherry A. Glied, Ph.D., 19 Aug 2010,New Technology and Health Care Costs, accessed 20 Sept 2014, <http://www.nejm.org/doi/full/10.1056/NEJMp1006602#t=article>,the new england journal of medicine

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[25] Neil Howe and Richard Jackson,10 Jan 2011, global aging and the crisis of the 2020s, accessed 21 Sept 2014, http://www.mauldineconomics.com/outsidethebox/global-aging-and-the-crisis-of-the-2020s

Each of these problems call to an answer and that is why governments are facing new challenges to adapt their systems to implement a public opinion need as seen in the US. For some systems reforms are needed to financially save the system that won't work anymore in the future in the same way like France or Germany. These challenges make it clear that governments need to adapt new health care plans in order to stay competitive.

All these problems previously mentioned lead to one major issue: The financial sustainability of the health care system and because there is no perfect pilot yet, we suggest to improve the old system and incorporate more effective and technologically advanced methods and to learn from other health systems by using their best aspects.

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21. Estelle James (Consultant, World Bank),Alejandra Cox Edwards (California State University, Long Beach) and Rebeca Wong (University of Maryland),The Gender Impact of Pension Reform, accessed 20 Sept 2014, <http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/06/05/000425970_20120605125536/Rendered/PDF/693210ESW0P0900der0Differentiated0I.pdf>

22. Jane Parry,Jan 2010,network of cities tackles age-old problems, accessed 20 Sept 2014, <http://www.who.int/bulletin/volumes/88/6/10-020610/en/,world health organization>

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24. Andrew Walker,14 Sept 2014, Ageing populations and fewer workers strain pensions,accessed 21 Sept 2014, <http://www.bbc.co.uk/news/business-11281670> , BBC

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# Preparation of Team Reports for Globalization SKEMA, September 2014

## Research topic: Analysis of Monsanto's global strategy

P. Belhocine, C. Chen, Y. Chen, V. Condo, E. Deborguere, and A. Duong Thi Quynh

***Abstract*— This report intends to analyze the global strategy of the US company Monsanto, the leader of the genetically modified seeds' market. Throughout this report, you will see that Monsanto's global strategy is based on international expansion. However, following such a global strategy involves global challenges, such as health, social, environmental, legal and economical issues. To overcome these challenges, the multinational company defends itself and supports its global strategy with the idea of "sustainable agriculture", based on producing in a more conservative and profitable way.**

## I. Introduction

Today, as soon as we talk about food, the most important issues deal with green and healthy. Monsanto, a famous global company, sparks debate because it intends to solve the food problem related to the increasing world's population, while injuring health and environment.

Monsanto is a multinational agricultural biotechnology company based on St. Louis, Missouri, USA. It is currently the leading producer of genetically modified seeds; it controls 70 to 100% of the market share. By expanding worldwide – i.e. in North & Latin America, Asia, Africa, and Europe – and coming with constant biotechnological innovations, Monsanto has acquired a real monopoly. Actually, only two competitors could threaten Monsanto: DuPont and Syngenta AG. Both produce genetically modified seeds but control only 47% of the market share; Monsanto stays the largest producer [1]. Indeed, in 2008, "Business Week" named Monsanto as one of the top ten influential business companies. Two years later, Natural Society named Monsanto the worst company. Is it a paradox or a consequence of Monsanto's worldwide impact? It is important to understand that Monsanto's global strategy is based on internationalizing its activities while developing a certain "sustainable agriculture". Actually, Monsanto claims it is an agricultural company that provides food, nutrients, new technologies, and application methods to farmers in order to help them increase their yields' productivity and personal incomes. However, both scientific and social studies prove Monsanto's negative impact on farmers' psychological and physiological health. According to these studies, Monsanto also negatively influences the environment, which as encouraged victims to sue and protest against Monsanto.

To analyze Monsanto's global strategy of international expansion, we will, firstly, study the basis of this global strategy; then, we will deal with the challenges faced by the US company; finally, we will focus on the idea of "sustainable agriculture".

## II. Monsanto's global strategy: International expansion

### *1. Partnerships and licensing agreements*

Monsanto intends to provide seeds, new technologies, and knowledge to farmers in order to improve their lives and

productivity, while using fewer natural resources. To do so, Monsanto concretizes partnerships and collaborate with local companies through licensing agreements. The global company collaborates with numerous organizations, such as Intergrain and Valent, in order to create innovative products and processes that would be impossible to develop without any partnership. Partnerships are based on the five following "technology focused areas": "biotechnology, breeding, biologicals, agronomics, and chemistry" [2]. Moreover, Monsanto can share its patented seeds with farmers through licensing agreements. Monsanto favors licensing with local seeds' companies and producers because it provide them branded seeds of quality. Licensees can use Monsanto's seeds and keep their own companies' names. According to Monsanto, licensing agreements "provide opportunity without obligation, are shaped around needs, can include stacking rights, and care about business partners" [3]. Consequently, farmers can benefit from biotechnological seeds, technological tools, and knowledge, which are aimed at improving their productivity and labor conditions.

2. *Intellectual property rights and royalties' collection*

Among worldwide farming companies, Monsanto holds the most patents, aimed at protecting its discoveries. The company is protected by "weak antitrust laws and Supreme Court decisions that allowed GM crops and other plant materials to be patented, while prohibiting seed saving by farmers" [31]. Moreover, Monsanto is also reputed for enforcing "intellectual property rights" by suing disrespectful farmers. Through these rights, Monsanto collects royalties from farmers who use patented seeds in their production.

3. *Monopoly*

One of Monsanto's goals has been to get a global market share in the seeds' market. Progressively, Monsanto settled in five continents thanks to its innovative products and acquired a monopoly. Actually, competition is rare and controlled. For instance, "more than 80% of US corn and more than 90% of soybeans planted each year are attributable to Monsanto" [31]. This monopoly has led to a dependence of farmers on Monsanto, because seeds generate more productivity.

4. *Centralized decision making and Research & Development centers*

The most important decisions are made in headquarter, located in Scott, Missouri, USA. Then, three learning centers are focused on Research and Development. One is in Mississipi, USA; the others are outsourced in the UK (Monmouth) and Sweden (Gothenburg). These centers benefit from efficient pipelines and concentrate "more than 20,000 employees focused on delivering innovative and sustainable products to farmers around the world." [4]

5. *Focus on emerging countries' resources*

Monsanto's global strategy focuses on expanding to emerging countries. Actually, the US company is mainly settled in India, Mexico, Brazil, Argentina, South Africa, Zimbabwe, China, and Vietnam. Because Monsanto's concentrates its research on soy, corn, cotton and rape, it settled in emerging countries where those resources are abundant. Monsanto also focuses on emerging countries' farmers because they need more nutritious and less water consuming seeds in order to improve their productivity. By producing more, farmers are able to feed themselves but also the rest of the world, which could solve the food problems related to the increasing world's population. As a result, licensing, selling or creating partnerships with emerging countries' farmers is a way to get access to a massive number of consumers, since the goal is to feed the population as a whole.

Monsanto's global strategy, based on international expansion, has led to health, social, environmental, and legal issues in the USA and in countries where it settled. Another challenge takes place in Europe, and especially in France, where Monsanto progressively intends to settle.

## III. Challenges faced by Monsanto

### 1. *Health issues: impacts on humans and animals*

In order to improve humans' lives, Monsanto has made several scientific innovations. However, the results of these techniques prove that Monsanto does not seriously care of humans and animals because many diseases have been recorded.

Firstly, due to Monsanto's genetically modified products, several human lives have negatively been affected. In the 1960s, Monsanto created a dangerous herbicide called "Agent Orange". During Vietnam War, "Agent Orange" has been dumped over forests by US planes, which has led to cancers and birth diseases in both Vietnam and the USA [5]. Then, in the 1990s, Monsanto elaborated its first biotechnological product called "Posilac". This "bovine growth hormone [is a] genetically modified hormone designed to increase cow milk by nearly 20%" [5]. However, once in cows' organisms, "Posilac" leads to diseases, "which forced farmers to treat their cows with antibiotics [that can be] traced in milk" [5]. Today, the hormone is only legal in the USA. Moreover, in 2001, Anniston City's residents sued Monsanto for 40 years of "PCB contamination" and health issues. In 2002, Monsanto lost the lawsuit and paid "$700 million in damages and cleanup of the city" [5]. Finally, Monsanto's products have also impacted several animals, and especially insects' health. For instance, a recent issue deals with "epidemic death rates among honeybees [due to] genetically modified seeds produced by Monsanto" [6].

### 2. *Social issues: the example of suicides among Indian farmers*

The most controversial social issue faced by Monsanto happens in India, where farmers seem dependent on the company and depressed.

The multinational company entered the Indian market thanks to a Seed Policy imposed by the World Bank in 1988. The goal of this Seed Policy was to regulate the relationships between farmers and seeds' companies by creating joint-ventures, licensing agreements, and contracts. Consequently, the seed market started to be concentrated and big companies, like Monsanto, got an increasing power. Indeed, Monsanto patented its seeds and sold them to farmers under "intellectual and property rights". Farmers, who produced cotton through their own and cheap seeds, progressively became dependent on Monsanto's more productive and expansive seeds. As a result, by paying royalties to Monsanto, farmers started to indebt themselves. Furthermore, several cotton farmers got indebted because they were not able to repay the loans they made to realize licensing agreements with Monsanto. Because of increasing debt and economic stress, thousands of Indian farmers felt desperate; that is why, they decided to solve their financial problems by committing suicides. If the multinational company and the pro-Monsanto Indian government speak about "social and personal causes" to explain these massive suicides, on the contrary, Dr. Vandana Shiva believes that Monsanto puts pressure on weak people to earn huge amount of money [7].

### 3. *Environmental issues: pollution and contamination*

By expanding globally, Monsanto have sold its products all around the world, which has led to negative repercussions on the environment, such as pollution and contamination.

Firstly, PCB is a type of chemical product that Monsanto have sold to

countries around the world for 50 years, which has led to huge amounts of chemical waste, harmful for the environment [8]. Secondly, Monsanto claimed that "Roundup" herbicide was biodegradable, beneficial, and harmless for the environment, whereas it was a toxic product. Indeed, Monsanto has been punished twice for fraudulent advertising, which forced the US company to modify the packaging [9].

### 4. *Protests and lawsuits against Monsanto*

Monsanto's global strategy of international expansion has led to health, social, environmental, and legal challenges in many countries. Consequently, several inhabitants and organizations decided to sue and protest against Monsanto.

Since 2008, five millions of farmers from Brazil have filed actions against Monsanto. They blamed the multinational corporation for squeezing farmers through exorbitant and illegal royalties collections. In 2012, Brazilian farmers won the lawsuit against Monsanto: they no longer need to pay the royalties and Monsanto has to return the royalties collected in the past ($500 million) [32]. On May 25th, 2013, a huge anti-GMO protest occurred, involving 436 cities and 52 countries. The protesters criticized Monsanto because its actions do not respect society standards and environmental requirements [8]. Furthermore, since the Mexican Court decision, on April 21st, 2014, Monsanto can no longer plant and sell GM maize in Mexico, even for "planting experiment" [10]. Moreover, many emerging countries have resisted or are resisting glyphosate. Finally, the Natural Society named Monsanto "the worst company in 2011". This action was aimed at letting people know the threat Monsanto brings to people's health and living environment [11].

### 5. *Controversial settlement in the European market*

In order to penetrate the European market, Monsanto joined lobbying groups, influenced research and education, created linked with local governments, and realized green campaigns arouse public interest [12]. Moreover, the European market is very protective and its consumers are aware of the negative impacts of GMs [30]. For instance, according to the "Attitudes of Europeans towards building the single market for green products" survey, more than half of the respondents buy often (26%) or sometimes (54%) eco-friendly products. This survey shows that Europeans think about the impacts of buying particular products on the environment [13]. Monsanto tried to change their mind regarding GM products, but it mainly failed. Actually, only one biotechnological product has been authorized, "Mon810", because it is resistant to a destructive European pest [14]. However, in France, the government banned the sale, the use and the cultivation of "Mon810" because it shows environmental and health risks [15]. This "European Monsanto skepticism" is also due to the French documentary "Le Monde Selon Monsanto" (The World According to Monsanto), realized by Marie-Monique Robin on 2008. Actually, in this reportage, several specialists prove that Monsanto lied to customers through misleading advertizing, in order to sell its products. For example, "Roundup" is more toxic than biodegradable [9].

To overcome these challenges and defend its global strategy, the multinational company focuses on the idea of "sustainable agriculture".

## IV. MONSANTO'S CONCERN ABOUT "SUSTAINABLE AGRICULTURE": A WAY TO SUPPORT AND DEFEND ITS GLOBAL STRATEGY

### 1. *"Producing More"*

In order to feed the growing worldwide population, Monsanto suggests producing more by increasing and enhancing crops.

The multinational company intends to improve agricultural yield gains thanks to "advanced plant breeding, biotechnology, and improved farm-management practices" [16]. Moreover, Monsanto's goal is to double crops by 2030. In order to succeed, the company uses agricultural innovations to improve crops' quality with a limited amount of disposable land. The first agricultural innovation, called the breeding process, represents 46% of Monsanto's Research & Development investments. This modern technique "accelerates the age-old process by selecting the most desirable traits of plant population" [17], thus, making stronger plants. For instance, broccolis sold under the brand "Seminis Beneforté" contain more "antioxidant enzyme levels" than natural broccolis, which improves humans' immune systems [17]. The second innovative process elaborated by Monsanto is biotechnology. This technique adds a specific gene into the DNA of the plant. Usually, a pest-resistant gene is introduced into the corn's DNA in order to kill warms and request less water. Finally, the majority of farmers use "Roundup" on their crops because this pesticide helps avoiding insects' attacks. Finally, in order to be more productive, farmers need to learn how to deal with "insects, weather conditions and soil variability" [18]. As a result, Monsanto created "Integrated Farming Systems" aimed at providing satellite imagery aid to farmers. Actually, farmers know what amount of resources is needed, when, and where [17].

As a matter of fact, Monsanto's solutions, aimed at increasing farmers' productivity and revenues, result in a win-win situation for both of them. On one hand, farmers are able to increase their crops yield gains and their income, and, on the other hand, Monsanto increases its own revenues and remains the leading company in the agricultural sector.

### 2. *"Conserving More"*

Today, Monsanto intends to both produce and conserve more. Indeed, the US company is committed into sustainable business practices for preserving the environment and, in the meantime, increasing the agricultural productivity.

The first important issue is based on increasing water-use efficiency, essential for crops' growth. To reach this goal, Monsanto has developed different irrigation systems, such as the drip irrigation system – enabling to boost "water-use efficiency of up to 95 percent" – and the conservation tillage, helping farmers to "reduce soil erosion and improve water retention" [29]. For instance, a successful example of water-use efficiency improvement deals with harvests of tomatoes and melons in Peru. Monsanto succeeded to save 16.6 million gallons of water in Peru, which is positive response to the global lack of water in several emerging countries' regions [20]. Monsanto developed another system with "science-based information on seeds selection", which has enabled farmers to know exactly what nutrients their harvests needed to be the most productive [19].

As a result, Monsanto's sustainable practices and partnerships with Conservatism International, for instance, are strategic positions for Monsanto. Indeed, they help the company to enhance its positive brand image, remain powerful in the worldwide agricultural development, and to increase its profits while contributing to worldwide sustainable development. This global strategy seems to be positive for both emerging countries and Monsanto.

### 3. *"Improving lives"*

According to Monsanto, the third key component of "sustainable agriculture" is based on "improving lives" of farmers in emerging countries and of the world's population. Since 2008, to improve lives, the multinational company has intended to "include an additional 5 million people in resource-poor farm families by 2020" [21]. Though innovation, biotechnology, and partnerships, the project is aimed at decreasing hunger, enhancing nutrition,

and bringing prosperity to farmers, their families, and the whole population [21].

Firstly, to diminish hunger, Monsanto plans to make rice and wheat yields more productive and sustainable by investing $13 million in Research and Development. Improving these yields is necessary because rice and wheat feed billions of individuals [21]. Consequently, Monsanto could reduce hunger, which currently impacts 850 million people and 425 million farmers [22]. Secondly, the US firm focuses not only on "food security", but also on nutrition enhancement. Actually, Monsanto's goal is to produce nutritious foodstuff in a sustainable way, respectful of the environment. For instance, Monsanto improved the quality of the broccolis sold under the brand "Seminis Beneforté". Finally, the last objective of Monsanto is to generate prosperity for farmers and, by extension, for the global population. In emerging countries, small farmers produce the majority of the foodstuff distributed to the country's inhabitants. However, these farmers are poorer and fewer fed than the others. According to Monsanto, the solution to this serious problem is biotechnology [23]. Actually, biotechnological crops lead to important income improvements because farmers have access to more resources. In 2008, 700,000 emerging countries' farmers used biotechnology in their production, which added $4.5 billion to their net income [21][23]. Moreover, in order to "produce more, conserve more, and improve lives" [21], the multinational company has involved in partnerships with "farmers, local governments, Non-Governmental Organizations, universities, and stakeholders" [24] aimed at elaborating sustainable projects. For instance, "Project SHARE" is occurring in India between Monsanto and the Indian Society of Agribusinesses and Professionals. Farmers will get access to knowledge and technological tools in order to be able to increase their cotton productivity. After 4 years, 10,000 farmers across 1,050 villages would have increased their personal incomes by 20 or 30% [25]. Furthermore, a key pillar of Monsanto's globalization is based on taking care of its partners. In 2006, all the partners signed the "Monsanto Human Right Policy" to insure the respect of human rights. Similarly, a "Code of Business Conduct" based on integrity and ethics must be taking into account when performing business globally [26][27]. Then, according to Monsanto, farmers' wellbeing must be enhanced in order to boost their productivity. If they produce and conserve more, farmers would improve their lives and those of the world's population because they would provide food to themselves and to billions of individuals [22]. Finally, Monsanto can be beneficial to emerging countries by providing "increased crop yields, reduced costs for pesticides, less fungal contamination, and reduced labor" [28].

## V. Conclusion

To conclude, Monsanto's global strategy is based on expanding worldwide – and especially in emerging countries where seeds can be easily commercialized – in order to develop its monopoly. However, this monopoly can be frightened by competitors who intend to settle where Monsanto is already settled, while behaving more ethically [1]. Actually, Monsanto's global strategy has led to health, social, environmental and legal challenges that are difficult to solve. Globalization drives Monsanto's strategy and has helped the company to become increasingly bigger through opened barriers in emerging countries; consequently, this phenomenon is partly responsible of the challenges faced by Monsanto. Emerging countries are in a vicious circle because need of Monsanto to get food, but are weakened by the multinational company, at the same time. Only developed regions or developing countries can control Monsanto's power thanks to good governance, such as Europe and Brazil. Due to the negative reputation that Monsanto acquired through time, the

US company came up with the idea of "sustainable agriculture", based on producing more, while respecting natural resources and improving farmers' lives. Today, this concern helps the company to defend its current and future global strategy.

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# Blood Coltan: is Globalization going too far?

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***Abstract*—this report discusses the influences on the poor countries caused by globalization through the example of coltan miner's life in Congo. Congolese suffer from diseases, starvation and warfare, while multinational companies and the local government make a lot of profit in the coltan trade. Globalization brings us new technologies, but it also brings disasters to many people in the undeveloped areas, especially in Africa. The world society should pay more attention to these people and try to change the current situation.**

***Index Terms*—armed conflict, civil war, coltan, Congo, corruption, environment, expansion, extraction, globalization, Kivu region, natural resources, new technologies, multinational companies, raw materials, trade.**

## I. INTRODUCTION

Since the 1980s, globalization is a new phenomenon and the world has become more apparent. The cross-border movement of goods and capital is the initial form of globalization. In this process, there is a corresponding regional and international economic management organization and cross-border exchange of culture, lifestyle, values, ideologies, and other spiritual forces, collision, conflict, and integration. Overall, globalization's core is economic globalization. It represents various regions and ethnic nations that are multi-level and multi-field interrelated on political, cultural, technological, military, security, ideology, lifestyle, and sense of values. The more important one is technical globalization. Globalization is a long period of new technologies. Technological changes or revolution are becoming the highlight point of globalization. They occupy an irreplaceable position in the global process of economic development. This technologies development decides how the economic trend is going. Moreover, science and technology, through the creation of a new artificial world, improve people's control, and the depth of capital. Technological globalization is promoting economic development and also improving the level of human life. However, there are still the pros and the cons about globalization. This topic highlights a hidden consequence of globalization because few people know what is really happening. Nowadays, new technologies are playing a key role in the world and the race to the coltan in Congo is becoming more and more worrying. We are going to show how this raw material is important for the expansion of globalization and technologies, how it is managed and who earns money from trade and management. In other words, we are going to analysis if

globalization is going too far.

## II. CONGO: CURRENT SITUATION

### *A. Presentation of the country*

The Democratic Republic of Congo or Congo (DRC) or (RDC) in French is a country of Central Africa. It is also the second largest country in Africa after Algeria. Its capital Kinshasa represents 2,345,409 km² in area, has 11 provinces including the province of South Kivu, 55,522,000 inhabitants, more than 400 tribes, and 10 frontiers with various African countries. This subcontinent, located in the heart of Africa, is endowed with enormous natural resources such as diamonds, copper, tin, and coltan. The country is very wealthy in terms of soil, subsoil and labor force but is paradoxically counted among the poorest and most indebted countries in the world according to some development indicators.

The repeated armed conflicts and the presence of foreign troops on Congolese territory are the determinants of poverty in the country. The economic environment, in the South Kivu region in particular, has been significantly damaged during this conflict due to the race of natural resources. In a report, the Panel of the United Nations has described and concluded about this illegal exploitation that the natural resources in the DRC have played an important role in prolonging the most devastating conflict the world has ever seen. According to them, the conflict in the Democratic Republic of Congo is fueled mainly about access, control and trade in five key mineral resources: coltan, diamonds, copper, cobalt, and gold. The country's wealth is attractive and it is hard to resist in this context of non-compliance with laws and weakness of the central authority.

Foreign armed groups, rebels and local targeted particularly these resources to raise funds (see annex 1). They are easily exploited by artisanal methods. They have high coefficients of weight in relation to value that can be easily concealed and smuggled and that are quickly absorbed by international markets supported by a strong demand from Europe, the United States and the Southeast of Asia. The lack of effective border control and enforcement mechanisms at the international level for the aforementioned resources and the need of a tracking system make them easy prey. It is the main issue concerning the coltan. This raw material is playing a key role in the economic revenue of the country and is closely linked to the globalization.

### *B. Focus on the coltan and life conditions*

However, what is coltan? Coltan is a metallic ore that is mainly located in the Kivu region in the Democratic Republic of Congo (see annex 2). The country owes around 80% of the world known reserves. This concentration makes Congo very wealthy in terms of natural resources. The coltan extraction is one of the main economic revenue of the country. It is used in the elaboration of a refined powder, the metallic tantalum, which is heat and water-resistant. This powder is essential for the high-tech manufacturing industries. There is no alternative. That is why coltan and especially tantalum are precious for these companies. They need it to produce electronic components that are

necessary to manufacture computers, video game consoles, mobile phones, and even rockets and planes. Thus, this raw material is everywhere! You might probably use a device that contains tantalum, right now, to read this report. In a same way, you are probably excited about the launch of the new Iphone 6 without knowing its manufacturing secrets.

In theory, knowing that Congo owes a huge amount of natural resources, including coltan, the country should be well-developed economically. And it is not really the case (see annex 3). The life conditions of the population and workers are still complicated. Due to the globalization and the expansion of the new technologies, the demand for coltan has been more and more increasing. Miners, that are children or young people sometimes, have to take risks in order to extract more raw materials in record time (see annex 4). They work all day long for up to 16 hours per day to satisfy the rebels who control the mines. As Congo is a developing country, the working methods are not regulated. Many people die due to the working conditions and the defective equipment. Moreover, health problems and diseases are also significant. Among others, mining causes breathing problems. For this reason, the precious metallic ore is called “blood coltan” because, most of the time, Congolese miners have to die or risk their lives to extract the raw material.

Now that we understand better the situation of the country and coltan miners, this leads us to one question. Why Congo is still poor knowing that coltan is one of the main economic resources of the country?

## III. THE IMPACT OF GLOBALIZATION IN THE MANAGEMENT OF COLTAN RESOURCES

### *A. Who buys coltan and why?*

As we said before, coltan is widely used in the production of capacitors for phones, laptops or other electronic devices. In the past decade, with a surge in demand and output of electronic technology products, coltan’s demand and prices have been soared. Since China has become the largest manufacturer in world, the country represents the loyalty buyer of coltan. The reference [12] shows that, according to the 2007 U.N. Comtrade data supported industry, China is now the first importer of the DRC coltan. Import data from the same year suggest that the majority of China’s ore imports were destined for the NNMS. Moreover, China’s consumption of coltan is part of its “go global” strategy of importing raw materials overseas, particularly from Africa (see annex 5). The lack of transparency in China’s resource contracts with the DRC government mirrors its purchases of strategic minerals mined outside government regulated sources. Therefore, China has invested 9 billion dollars called the “deal of the century” and it is, according to the reference [10], a natural extension of their ongoing resources for infrastructure policy. It is a long-term investment project, and it committed to protect and develop the natural sources of DRC in a balanced way. On the other hand, the project helps China to become the biggest beneficiary in this long-term business.

Meanwhile, not only China, but the most of technological manufacturing companies in the United States and Europe also buy coltan from the DRC. For example, the American company named *Kemet* is the world's largest manufacturer of tantalum components and has used the coltan mined in Congo many times. The reference [12] shows that, as same as the other capacitor and electronic devices makers, the strategy of the companies is to usually buy through several intermediaries in the country in order to consolidate the ores and negotiate the sales. On the other hand, the United Nations investigation report found that many companies purchase coltan from areas controlled by armed groups and exploit the distinction between themselves and the negotiators to claim ignorance of the ores' origin. Therefore, in order to reduce the import pricing of the coltan and make more profits, many companies tend to encourage the illegal mining and violent clashes.

### *B. Who benefits from trade?*

Sadly, instead of becoming an important pillar industry to improve economic development, the wealthy recourses in Congo became fruits seized by the greedy and it is the direct cause of the uninterrupted civil war. According to the Curse of Gold, a research report published by Human Rights Watch in 1998, shows that the struggle of recourse leads to the war and slaughter in North Congo. The annual value of production of some mine fields, which are controlled by the rebel army, can reach up to 218 million dollars. These profits sustain anti-government and illegal activities. People will have much more high-quality life if the money were used for national facilities, such as schools, hospitals, roads, houses and so on.

Another important reason of the poverty of the country is corruption (see annex 6). The government of Congo is sort of stable and continual management system, which is the main feature of Congo since the colonialism period. Almost each session of government leaders is greedy and corrupt. The power-holders grab the national assets and put money into their own pockets, leaving the population to die. United Nations officials say that, although the international community gives 8 million dollars to the Congolese government army each month, 3.2 million dollars of the aids are grafted. The soldiers, which ought to be nation security safety, rob the common people because of the arrears of wages and the low morale. There is also a lack of transparency in the national financial positioning. The population does not know where the money is going and they cannot supervise the flow of funds.

In other words, if the gains from the trade of natural resources were contributing to education, medical treatments, transportation, and houses, Congo would be much richer and more developed, and the people there could really enjoy the benefits binged by globalization.

## IV. CONCLUSION

To conclude, it is important to keep in mind that globalization is not the principal cause of the under development of Congo. Corruption and bad

governance are the main reasons. That is why, the population does not really see the real effects of globalization.

As we can see in a general way, the Congolese government failed to play its role as primary guarantor of the management of public affairs in order to ensure a fair and balanced redistribution of wealth to the people.

Because of this situation, many companies decided to stop using "blood coltan" mined in the RDC. According to the reference [8], due to numerous demonstrations that occurred in Paris, the Apple company has announced this year its decision to stop purchasing coltan from the DRC for its future products. The multinational companies are now starting to think of a different way to manage trade and technologies expansion, which is a huge step.

As a recommendation, the government of the Congo, should try to guide and control the operations and see beyond the private interests of the parties involved, taking into account the general interest of the population as well as those of the future generations. Globalization is finally not to be blamed.

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## ANNEXES

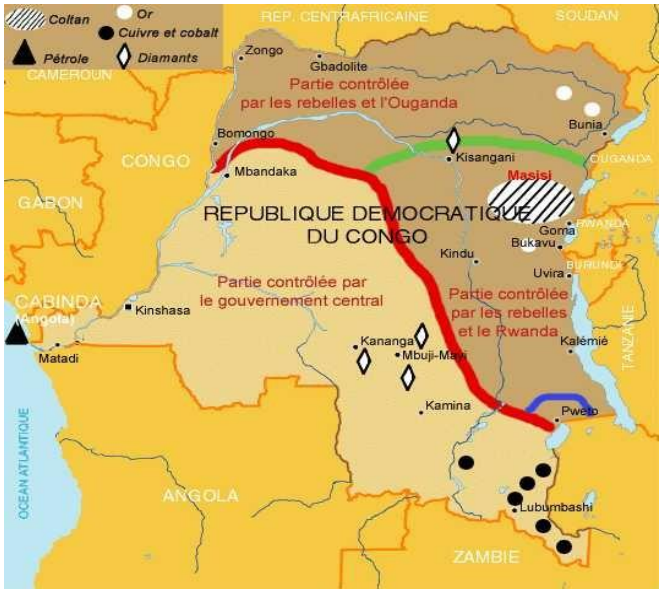
**1**

Congolese civil war

**Source:** http://www.cookiesound.com/

**2**

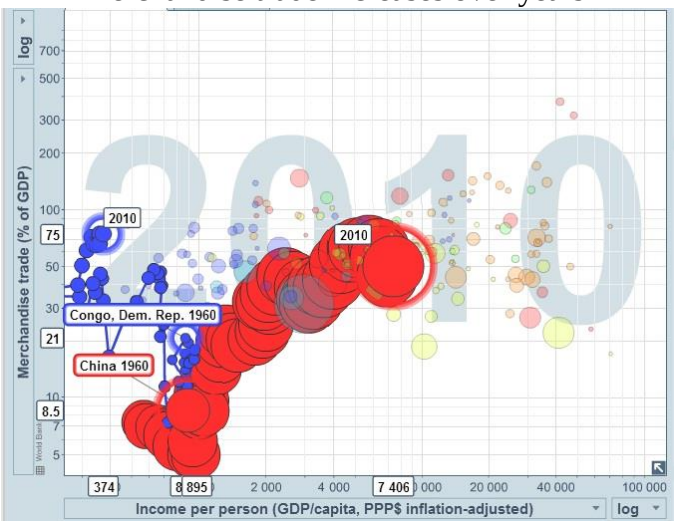
Coltan mines and rebels' control areas




Source: http://www.congoforum.be/

**3**

Congo: Income per person decreases VS Merchandise trade increases over years




Source: http://www.gapminder.org/

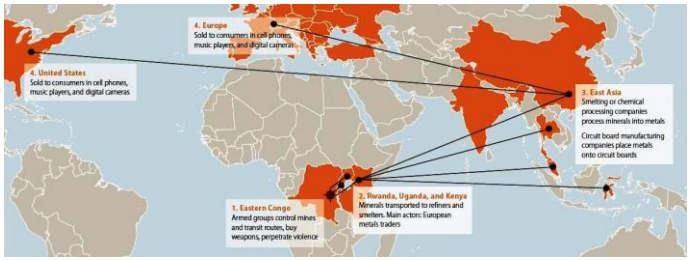
**4**

Children miners

Source: http://www.biyokulule.com/

**5**

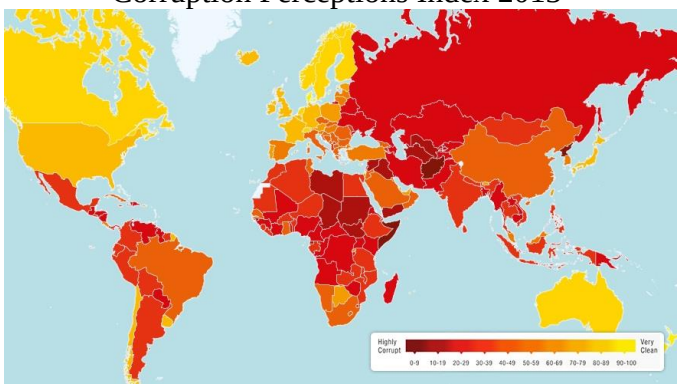
The route of coltan




Source: http://www.congoforum.be/

**6**

Rank 155 in terms of corruption, according to the Corruption Perceptions Index 2013




Source: http://cpi.transparency.org/

**SKEMA BUSINESS SCHOOL – SOPHIA ANTIPOLIS**

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# *GLOBALIZING BEAUTY: HOW BEAUTY STANDARDS ARE AFFECTED BY GLOBALIZATION*

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# Globalizing Beauty: How Beauty Standards Are Affected By Globalization

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***Abstract*—**This paper discusses the impact of globalization on beauty standards in countries around the world; it's evolution over the past decades; and the impact it has had on women's perception of beauty as influenced by (social) media and role models. It will also tackle the stereotypical views of beauty and the difference between the western and the eastern beauty preferences, especially concerning the use of cosmetics. It is undeniable that companies have been adapting their products to distinctive cultural and societal values, developing new norms through advertisements and corporate branding, though consequently encountering ethical issues when doing so.

***Index Terms*—globalization, beauty, cosmetics, whitening products, ethics.**

## I. Introduction

FOR decades, women all over the world have been taught that they are "worth it" – namely, to be beautiful. They are worth it to be as beautiful as the perfectly coiffed model speaking the words to them in the ad. She is most likely a celebrity and has been selected to reflect a certain ideal formed by the media, may it be movies or magazines. It is evident that this ideal can be very different from one country (or culture) to another: there is no such thing as a universal idea of Beauty. Therefore, global brands such as L'Oreal or Estée Lauder are forced to adapt their advertisements and even their products to different markets.

In this paper, we will assess the question of how beauty standards around the world are affected by globalization. In other words: how (in our case Western) cosmetic companies tackle the variety of beauty standards they face in every country they're operating in.

First, we will give a little background on the subject. We will see that the concept of beauty has been changing historically and that the use of cosmetics has been with us for centuries.

Second, we will ask ourselves the question: is there such thing as a 'global beauty standard'? We will show several examples that show both pros and cons to the theory of a homogenizing beauty ideal, putting the emphasis of the everlasting influence the West has on the East.

Third, we will take on a small case study to illustrate the cultural gaps in the way we perceive beauty. We will examine the interesting discrepancy between the Western love for tanned skin and the Eastern wish to be "whiter". Therefore we will assess the ethical questions a Western cosmetic

brand might encounter when going east, taking into consideration some important cultural differences.

In our conclusion we will briefly return to our main question. We will take into account the different aspects of what we have seen during our research and come to a comprehensive – though not at all exhaustive – answer.

## II. History of beauty: evolution within the globalization wave

The beauty industry is rarely mentioned in the management and globalization literature, because it is seldom considered as a production that has an impact on our everyday life, let alone the global economy. Tungate (2012) shows however that the beauty industry is undeniably booming and might be fueling globalization. The global value of the industry reaches 350 billion dollars yearly, knowing that the largest part of is due to earnings generated by skin care products. How did we get to this point? Why we are always preoccupied about our appearance spending that much money?

For thousands of years, every known human civilization has used beauty aids of one kind or another, lending support to the view that the use of cosmetic artifices rested ultimately on biological imperatives to attract and to reproduce (mainly Jones, 2011; but also Gunn, 1973; Le Guérer, 2005; Morris, 1984; Subbarayappa, 1999). In ancient Egypt, religious rituals gave birth to beauty customs such as personal hygiene and cosmetics made from malachite and other copper-based minerals. Consequently, the use of similar products reflected a certain social status. During the renaissance and due to print media, written manuscripts by women throughout this period became the first beauty guides. Clear, white skin was particularly held in high esteem because it indicated a woman with high breed; herbal remedies and gemstones were used to make potions for promoting fair skin and removing pimples.

The growth of the beauty market is linked directly to the globalization wave, which set off in the nineteenth century. By the turn of the century, the industrialization had made it possible to mass produce cosmetics, making it possible to lower the prices and enlarge the market, therefore democratizing its use.

Polish-born Helena Rubinstein founded her eponymous cosmetics brand in Australia around 1905. She introduced the concept of ‘problem skin types’ and marketed her beauty products with the help of pseudoscience, “donning a lab coat in many advertisements” [4]. Her business model proved immensely successful: her products were sold worldwide, from Australia to America and even Russia, making it one of the first global cosmetic brands.

After War World II, the distribution channels had changed: it had become easier to buy the same product on different markets and consumers started to buy internationally rather than locally. Prestige perfume brands, such as Chanel or Guerlain, were widely sold in developed countries and available to the elites of non-Western developing countries. Unilever and Colgate Palmolive sold their goods

(soap, toothpaste, and shampoo) on five continents. Beauty and even hygiene was associated with Western white ethnicity, and with certain locales, notably Paris and New York [9].

Over the past few decades, the growth in sales of beauty products in emerging and transition markets has been phenomenal. In the 1980s, the beauty market in China was nearly non-existent, as the regime suppressed cosmetics production, while consumers in the Soviet Union could only access the products made by the central planning regime. Today the well-known competitors and experts concentrate more and more on the BRICS countries, as they collectively account for almost one-fifth of the global market in beauty products (See Figure 1). The economies of Brazil, China and Russia are all in the top ten of the world's largest beauty markets, ranking at respectively third, fourth and eighth place.

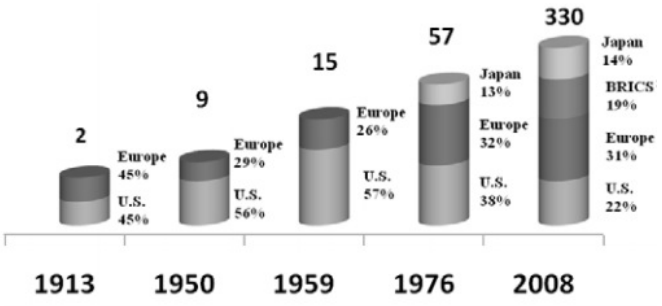


Figure 1: Estimated Growth of the Global Beauty Market 1913-2008 (in 2008 U.S. dollars). Source: Jones (2010: 366-367)

## III. A GLOBAL BEAUTY STANDARD?

In early 2014, American blogger Esther Honig decided to use the image-editing tool Photoshop for a social experiment, namely to explore how beauty standards varied around the world. With that in mind, she contacted forty people from twenty-five countries, sent them her photograph (a simple head shot without make-up) and asked them one thing: make me beautiful. The resulting images, altered by both professionals and amateurs, show that esthetic preferences vary largely from one country to another. "People were pulling from not only their cultural constructs of beauty but also their personal aesthetic choices," comments Honig on her blog [7]. Within a few weeks, her experiment went viral and quality news magazines like TIME took interest in her, indicating our enduring interest in the way we perceive ourselves.

In a world with so many different cultures and backgrounds, it is no surprise that we all have a different idea of beauty. However, one might raise the question whether globalization may be affecting this standard. Nowadays, the Internet grants us access to all the four corners of the world and we can pick our own role models from magazines, television series and blogs. Might it be true that, the world being exposed to the same images of beauty everywhere, the idea of beauty is converging as well?

To see how the idea of beauty has been evolving, photographer Zed Nelson traveled through eighteen different countries to photograph men and women of all stature and to record their story. He collected the images in his 2009 book "Love Me", which shows how our world is becoming more and more "Westernized". In a lot of non-Western countries there is indeed a tendency towards "the modern Caucasian beauty ideal": "'Westernising' [sic] the human body has become a new form of

globalisation [sic], with 'Beauty' becoming a homogenous brand" [12].

Indeed, 'beauty' might not be so culturally diverse anymore as we think. Acclaimed British journalist Yasmin Alibhai-Brown gave an extensive view on the matter in a 2010 article for *The Independent*. Illustrating her piece with numerous examples of Asian girls literally desperate to look like their Western counterparts – and especially the celebrities – she shows us how the West has transported its "neuroses [on] physical perfection" [1] to the rest of the world. Cultures where ten, fifteen years ago, the ideal body for women was voluptuous and full, nowadays face the same obsession with thin and lean as in the West.

Meanwhile, Pires and Stanton (2002) point out that the concept of globalization may imply "sameness across cultures", but "in reality [one can] observe "a strengthening of the cultural differentiation […] through ethnicity" [14: 112]. This poses an interesting paradox: on the one hand, there is a strong emphasis on ethnicity when it comes to defining one's cultural identity; on the other hand, we cannot ignore the prevalence of the idea that a "foreign" beauty ideal is the standard. The ethical issues of this discussion will be more amply examined in the next chapter. But it is evident that, as in many other fields, the choice between global and local is very pertinent. Talking about 'global beauty' does not only imply an economic factor, but in fact a questioning of one's own values – thus it has an even larger impact on people's lives.

To counterbalance the negativity around the cosmetics and beauty sector, several brands have taken their responsibility. In 2004, Unilever-owned Dove has launched its highly successful "Campaign for Real Beauty". In a series of short online films, Dove highlights the diversity of women and claims to be on the quest for natural (opposed to photoshopped) beauty. In 2007, the brand even launched its "Movement for Self-Esteem", an educational program to "encourage, inspire and motivate girls around the world" [17]. Critics may perceive this as a mere marketing stunt, trying to boost the brand image and sell more. But brands like Dove have undeniably set an evolution in motion that tries to regain field in a market which is becoming more and more competitive – and also, more and more unrealistic.

## IV. Adapting to the Market: A Case Study on Asian Whitening Creams

The idealization of the Caucasian beauty standard does not only cover body form (length and weight), but also – and most importantly – skin color. A light skin has been the prerequisite for beauty in many parts of the world for a long time: "the attraction for fair skin goes back for millennia. It is associated with the upper strata of society, languishing in their shady palaces while the peasants toiled in the fields" [Author's translation; 16: 205-206]. Indeed, early advertisements for cosmetic brands show that white skin equals beauty; an idea further institutionalized by colonization and imperialism [9].

Today, this image is still very much alive, mainly in Asia. The media give the idea that natives with a lighter complexion have more success, both professionally and emotionally. In India, a TV spot for Fair & Lovely, a whitening cream, shows a young woman unhappy, unemployed and rejected by her family. One day, she tries a lightening cream and suddenly all beautiful and radiant, she finds a job and earns the pride of her father [3]. The caste system in this country makes the situation even more complex. People with dark skin are considered to be in the lowest caste, the so-called "untouchables". Not wanting to be associated with these "pariahs", Indian middle class women have been using whitening creams since the 1970s, when Hindustan Lever (now Hindustan Unilever Ltd) launched Fair & Lovely. It is still one of the most trusted brands for young women in Asia today, with a clear dominance in India's $200 million beauty industry [9].

In India as well as in many other Asian countries, the cult of whiteness is widespread. In southern parts of the continent, where skin color tends to be darker, magazines promotes the fairness of complexion of Korean or Japanese pop stars; hardly a convincible roll model for a Thai or a Malaysian [2]. The idea, however, is as deeply imbedded in their culture as it is in China or Korea. For example in Thailand, calling a woman *dam-tap-ped* (literally, "dark as the liver of a duck") is an insult; the ideal is to be *khwaaw suay* ("pretty white") [3].

It is clear that the production of whitening creams is a must for Western cosmetic brands for entering the market in Asia. While the ruling beauty standard of tanned skin in the West results in a large array of products helping women to look bronzed (such as foundation), Western brands cannot sell these in the Far East. Consequently, virtually all the major cosmetic brands now have a whitening product in their range, such as L'Oreal (*White Perfect*) or Clarins (*White Plus*). Reversely, Asian brands like the Japanese Shiseido have to adapt their products to the Western market, since their principal product line consists of only whitening cosmetics.

Evidently, the question may arise whether the brands selling whitening creams do not prevent the emergence of a broader vision of beauty. Should non-Asian (i.e. Western) companies willingly contribute to this image, which feels more than a little uneasy, if not unethical?

Pires and Stanton (2002) stress the fact that a company's will to do "good" or to be "acceptable" (the essence of being "ethical"), is challenged when faced a different culture where a different set of ethics may prevail. One could argue that a company has no choice but to adapt to market if it wishes to enter it; especially for cosmetics companies, ethnic marketing is key [14]. Meanwhile, the issue raised by us is one of cultural perception. In the eyes of many, the idea of white skin tone to be better is "abhorrent" [1]; a perception that has its roots in a long history of Western countries involved in racism and discrimination: slavery, segregation and apartheid. Tungate (2012) would even go as far as naming the advertisements bluntly showing a woman "zipping up" her speckled, colored face to

reveal a clear, fair skin to be "merchant racism" [16: 205-206]. (See also Appendix.)

We get varied messages from the Asian point of view on this. There are those who point out that it is not a matter of preference of one race over another. "Our goal is to have a white skin, not to be Western. Just like Europeans want to be tanned without actually wanting to be black", says a Malaysian girl [Author's translation; 3]. In fact, in some cases, like in India, the higher castes have always been associated with fairer skin, even before the European colonization [2]. On the other hand, though, we hear about Koreans who are happy to pay $800 to "de-orientalize" their eyes [1]. More importantly, the Fair & Lovely advertisement we discussed above has certainly raised eyebrows: Brinda Karat, general secretary of the All India Democratic Women's Congress, called the ad "highly racist" and "discriminatory on the basis of the color of skin" [10: 1354].

Besides these claims of racism, there is also the aspect of social discrimination. Most of the creams on the market are to be considered a luxury. For example, Lancôme's "Blanc expert" costs 830 Yuan (around 105 Euro [19]), which is roughly two-thirds (or even more, depending on the region) of the average minimum wage in China [18]. This clearly creates a social schism between those who can afford these products and those who cannot; a vicious circle wherein the poor are not granted "access" to the higher strata because of their complexion. And even though there are cheaper products on the market (the most popular among which is the aforementioned Fair & Lovely) the efficacy of such low-end creams is under scrutiny. Being mostly "ill informed, not well educated, and perhaps even illiterate" [10], the poor find themselves in a very disadvantaged position, with the chance of them buying a whitening cream that does not even work – or worse, does actual damage to the skin [3] – is considerable.

## V. Conclusion

Paradoxically, the globalization of beauty has its boundaries. There are certainly signs that the widespread use and influence of cosmetics have had a homogenizing effect. It is nevertheless important to keep in mind the underlying cultural values of each market, which makes differentiation inevitable. And where cultural values collide, so do ethical beliefs. The example of whitening creams in Asia is a mere illustration of the (ethical) difficulties one might face on a market where the beauty ideal is so radically different from one's own (for a more ample discussion on the subject, see [10]).

But globalization is no longer a "one-way street" [9], where the West dominates the rest. Local markets are finding their own way, competing with the big Western ("old-world") companies. Perhaps, in due course, with the strengthening position of the emerging markets in the East, the global beauty standards will shift. The largest ethnic group in the world being the Han Chinese (18 % [20]), it is only a matter of time before we'll find Fair & Lovely in our local supermarket. It would only be a natural effect of globalization.

## APPENDIX


Appendix: Advertisement for Vichy's 'Bi-White' cream.
Source: Vichy Laboratoires

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SKEMA Business School
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# Team 98 Report:
# Globalization & Sustainable tourism

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**For almost two centuries, globalization has transformed our way of living and thinking. It impacted the different economic sectors, from which the tourism industry. With the diffusion of the sustainable development's idea, a new concept was introduced into the tourism sector: Sustainable tourism. In this six-page report, we expose the results of our researches and contacts with professionals, to explain this concept of burning importance.**

**Globalization, Sustainable development, Tourism, Mass tourism, Sustainable tourism, Instruments**

## I. INTRODUCTION

The World Tourism Organization (UNWTO) celebrates, every year on the 27th of September, the World Tourism Day. This event's objective is to raise international awareness on the importance of tourism and its different aspects: social, cultural, political and economic. This year, the theme is 'Tourism and Community development'. The empowerment of the host communities is an objective of sustainable development, defined as "the kind of development that allows populations to satisfy their present needs while ensuring that future generations can satisfy theirs in the same way or better" [1]. Globalization has highly influenced tourism and created a new way of consumption: mass tourism.

We can wonder how mass tourism has created the need of sustainability? First, we will describe the influence of globalization on tourism; then, we will develop the impacts of tourism on the destination and we will finish by explaining the instruments of sustainability.

## II. THE INFLUENCE OF GLOBALIZATION ON TOURISM

The notion of tourism is a quite recent concept, and mass tourism is an even a more recent trend. In this part we will explain the evolution of tourism, and what it generates for inbound destinations. Tourism being global nowadays, we will also wonder if there is a global governance.

### *A. From the apparition of the idea of vacations to mass tourism*

First of all, we should point out the difference between travel and tourism. UNWTO defines travel as the activity of a traveler, "someone who moves between different geographic locations for any purpose and any duration". Tourism refers to the activity of a visitor, "traveler taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited" [2].

In this way, if travel is a phenomenon that has thousands of years - the earliest forms of travel were conquests, pilgrimage, trade, education, etc. - tourism appeared in the mid 19$^{th}$ century. With the industrial revolution, road networks were improved; and new forms of transport were created, such as the railway and steamboat. The first package tour, composed of a journey by train, from Leicester to Loughborough with an afternoon tea, was organized in 1841 by Thomas Cook. Since then, tourism has always been growing (See Appendix 1)[2].

After World War Two (WWII), in the 1950's, there was a the new globalization's wave and a new middle class appeared. The household revenues increased, workers had more annual holiday time, and with Marylin Monroe going to the beach for her holidays, leisure tourism – in opposition to business tourism – became fashionable. That was the beginning of a new trend: mass tourism. Thus, some destinations, such as beach resorts, faced massive influx of tourists during a short period of time in the year, usually summer.

Moreover we can notice that people from developed countries, with an increased income, were offered "cheap" destinations (compared to the price of the developed countries' destinations) in developing countries. Therefore we noticed a flow of tourists from "rich" countries to "poor" countries. [3]. We went from domestic tourism, people traveling in their home country, to international tourism. But how people get to a destination and how a destination can welcome that amount of people?

### *B. Infrastructures and technologies*

The evolution of customs and the new willingness to travel has generated the need for inbound destinations to increase their host facilities. One of the infrastructures that had been the most developed is the transport infrastructures. Roads were improved or created, railways were developed and airports were created. National airlines companies expand, some of them offering international flights, and travel agencies were founded. For example, in 1933, four French airline companies merged and found the famous Air France airline company. In 1938, 104 424 passengers traveled with Air France for both domestic and international flights. However, as for globalization in general, the war stopped the expansion of Air France. In 1946, after WWII, the company initiated its first flight Paris-New-York. During the 1960's, lengths of flights decrease and the number of passengers increased sharply [4].

Moreover, the accommodation capacity of these inbound destinations had also to be increased. Large resorts and hotels were built by local people or by leading hotel companies who wanted to become international. For instance, the current hotel industry's leader, InterContinental Hotel Group, was founded in 1777 in the UK and stayed in its national market until 1988 when it bought Holiday Inn International. Then it acquired many hotels all over the world and decided to divide its offer, from luxurious to economic hotels, to meet the demand of its different costumers' segments [5]. Amenities, such as restaurants, shops, parks, etc, and cultural places, such as museums, concert hall, theaters, etc, also flourished in those cities.

All those infrastructures, accommodations, amenities and cultural places required at least electricity and water. Thus energy supply networks also had to be developed to be able to welcome tourist with the level of comfort they demand.

Furthermore, it is interesting to note that the New Technologies of Information and Communication (NTIC) have strongly helped tourism's development. Indeed, at first expensive new technologies allowed professionals, such as travel agencies, to gather all the travel booking's offers. Now, after the democratization of the NTICs, information is available to anyone who has access to Internet. This access to the information has had two main effects: firstly is has made it much easiest to book a flight, hotel, restaurant or whatever the costumer wants; secondly it has decreased the transaction costs for the consumer.

### *C. A global governance?*

Composed by 26 Europeans countries, the Schengen Area's objective is to facilitate the movements of goods, capitals and people within its borders; there is no visa needed, passport's controls have been abolished since 1995[6].One of the consequences of this union has been to encourage tourism by facilitating tourist's travel. This is a real opportunity for the 400 million people concerned by this agreement who can cross these internal borders whenever they want [7].

Other countries like Brazil, Australia and Canada for example, have other policies and prefer limiting tourists' flows by imposing visas. The working holidays visas allow people from 18 to 30 years old to stay in a country all year long and is delivered only once in your life. In 2014, a survey showed that 70 000 French were living in Australia. This number shows that despite of these limited visas, Canada and Australia became the most popular destinations for foreigners who want to live away from their home countries [8].

With the apparition of mass tourism, an institution was created to promote and develop tourism all around the world. The UNWTO main objective is to make sure that tourism is affordable for everyone and sustainable. Related to the United Nations, this organization gathers 156 countries, and creates rules and codes that have to be respected to make tourism a truly global industry. It has currently 13 programs dealing with, for example, the market trend, governing bodies or sustainable development of tourism. Every year, the organization rewards people working on a sustainable tourism in order to encourage them to deliver the good attitude to others [9].

Global governance refers to the way in which global affairs are managed, involving the application of laws and regulations. However, we notice that in tourism such thing does not exist. Indeed, even the most important tourism's organizations, such as the UNWTO or the World Travel & Tourism Council (WTTC), do not release laws. They provide guidelines, norms and regulation that affect regional and national policies. There is no global governance but institutions with a lead role [10].

## III. THE IMPACT OF MASS TOURISM ON THE DESTINATION

The sharp increase of tourism in the recent years has affected the inbound destinations. In this part we will develop its positive and negative impacts.

### *A. The economic impact*

For all countries, the economic impact is always positive: Tourism leads to the growth of Gross Domestic Product (GDP). According to World Travel & Tourism Council (WTTC), tourism accounts for 9.5% of the world GDP in 2014 [11]. Tourism economic growth is resistant: even during the 2008 financial crisis, it continued to grow.

Whether in advanced areas or emerging regions, the economic performance of the tourism sector is outstanding. According to the UNWTO's statistics, 1087 million people visited a foreign country in 2013, spending US$ 1159 billion [12].

In macroeconomic terms, tourists' spendings generate an increase in foreign exchange, which stimulates the local economy through the multiplier effect. This effect, which can be direct, indirect, or induced, has a positive impact on the destination and helps at its economic stability.

Moreover, the tourism sector has a positive impact on the employment rate of the country. Indeed, tourism being a multi-disciplined field, it creates direct and indirect jobs. Direct employment can be measured and, worldwide, represents 4.7 million workers: 1 job out of 11 [12]. Indirect employment is more difficult to measure but it can be people working in the manufacture of the souvenir for example.

Nevertheless the job's quality still needs to be improved. Seasonal employment, low positions, and lack of professional qualifications are the characteristics of the jobs offered in the tourism sector to local people. For instance, in Tibet the high season is from July to September. During these 3 months, tour guides are called in. But according to a study, only 41.66% of the tour guides have a high school diploma [13].

Furthermore, the demand's increase in those inbound destination leads to price inflation. Consequently, for local people living close to the tourist sites, the cost of life has risen. Sometimes, for ephemeral events, prices increase on a short period of time. That was the case during the Spring Festival in 2012, when Hong Kong received 96600 visitors. According to Hotel LKF by Rhombus (Lan Kwai Fong) web page, the price for the lowest room category was hk $18000, but when the festival ended, prices dropped to hk $1998 [14].

This phenomenon leads to the emergence of a seller's market. The local inhabitants have to pay a higher price for goods and services that is not worth their real value.

Added to those effects on the economy, tourism strongly impacts the environment of the destination.

### B. *The environmental impact*

In a positive way, tourist destinations can use a part of the tourism income to finance programs of protection [15]. Governments or organizations can take measures regarding the management of the environment in order to protect the tourist sites. To optimize the environment and improve tourist satisfaction, on September 10, 2014, Hangzhou government (China) launched a series of measures including greening project, sewage treatment, white-pollution control, etc [16].

Moreover, after experiencing a destination, tourist may become environmental-friendly. They want to preserve it, and will pay attention to behave respectfully while on the destination.

Unfortunately, as mentioned in the first part, infrastructures, facilities and energy supply networks were built rapidly in the 60’s, 70’s and 80’s to respond to a booming demand. None of the environmental or sanitary factors were taken into account. Buildings with asbestos, a carcinogenic material, were constructed.

Another problem is that, often, the tourist demand for natural resources is higher than the natural environment's ability to cope with these needs. Negative impacts occur and we note pollution and an overuse of natural resources. The case of the city of Las Vegas is an edifying example of this overuse of natural resources. Las Vegas is the most popular tourist destination in the USA with almost 40.000 visitors in 2012. It also ranks top in the world for accommodation capacity, with over 150.000 beds [17]. The average water consumption in the United States is 666 liters per person per day [18], but in Las Vegas, it goes up to 830 Liters per capita per day [19]. In the last past years, California has faced droughts that put Lake Mead to his lowest point since it was built in the1930's. The lake supplies 90% of Las Vegas water [20]. If the city does not react and adopt adjustment measures, Las Vegas will run out of water and casinos and hotels will have to close their doors: the city will create its own downfall.

As far pollution is concerned, one of its major sources is transportation: to get to their destination, tourists use transportation by air, road, rail and sea, which creates CO2. It participates in global warming, one of the century’s most important environmental threat.

Pollution also takes the form of litters: on the 270 boats sailing on the Nile, 50% do not process a waste treatment before they reject them in the river [21]. Hotels also reject sewage water in the sea, threatening the local species.

Tourism also puts a high pressure on local resources such as energy or food. The island of Kho Samui, Thailand, suffered blackout due to slowest development of energy infrastructures compared to the tourism development [22].

Finally, mass tourism sometimes leads to aesthetical pollution: hotels are built without regulation and do not integrate in the local environment, the most striking example is the Spanish city of Benidorm (See Appendix 2).

### C. *The socio-cultural impact*

Besides those effects on the environment, tourism also has an impact on the local population. The socio-cultural impacts of tourism are the consequences of the interactions between the host population and the tourists. They are more difficult to measure because they may not rely on numbers and facts, and because they are more a matter of value and judgment [23].

On one hand, there are the positive impacts. Tourism allows two communities, the tourists and the hosts, to meet and discover each other, hence a better knowing, learning from each other and understanding between cultures.

On the other hand, we can identify negative socio-cultural impacts, and the first one is the depletion of the host population's culture and identity. This depletion takes several forms: commodification and standardization of the culture which leads to a loss of authenticity. This is well illustrated in the Mexican culture: the local ethnic groups welcome the guests at the entrance of the main cultural sites like Chichen Itza or Tulum. They get paid for being dress up in traditional clothes and perform ancestral dances. They sell “traditional artcraft”, which has been made in a Chinese factory. This is only a show; as soon as they go home they are back to their Occidentalized way of life.

Moreover, mass tourism raises ethical issues: tourists do not always respect the local customs. In the worst case, tourism can lead to the exploitation of the host community: sex tourism like in Asia or child labor.

Thus tourism has many positive and negative impacts on the inbound destinations. Nevertheless with the growing trend of sustainable development and the awareness of the multiple negative consequences of mass tourism, people have been questioning this type of tourism. They have been trying to find a new tourism, respectful of the environment and of the host communities.

## IV. Sustainable development and its instruments

Due to the awareness of the mass tourism’s negative impacts and of sustainable development’s trend, a new way of thinking tourism has come up.

### A. *The appearance of the notion of sustainable tourism*

The awareness of sustainability issues emerged over the last 30 years, when tourism became global and started being an important economic sector. According to the UNWTO, sustainable tourism can be defined as “Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.” Thus, sustainable tourism is not a form of tourism; it is a way of acting in tourism. Nevertheless, firms have used this concept and specialized in forms of tourism that is sustainable, so called: ecotourism, pro-poor tourism, community-based tourism, fair-trade tourism, cultural tourism and rural tourism

[2]. Therefore, policies and actions must strengthen the positives impacts of tourism that we have discuss before while reducing the negative ones.

Many organizations and associations are working in this direction. In 1972, the Club of Rome, a policy institute that dealt with political issues, introduced the idea of achieving a healthy society in order to have a reorganization of social structures all over the world [24]. Moreover, the Bruntland Report in 1987 and the Rio de Janeiro Conference in 1992 elaborated basic concepts of sustainability, to lead to a political accordance. So, politics became aware of the importance of making economic processes more sustainable. Since then reports have been updated, with always new objectives. For example in 2009, the Club of Rome's report was completed and focused on five new specific issues: Environment and Resources, Globalization, International Development, Social Transformation, and Peace and Security [25].

Inter-governmental organizations, Non Governmental Organizations (NGOs), environmental associations or action groups are the main actors of the widespread of sustainable development and sustainable tourism [26]. For instance, 2002 was declared Year of Ecotourism by the United Nations. The two main outcomes of this year focused on sustainable tourism were the publication of a series of good practice compilations "Sustainable Development of Ecotourism - A Compilation of Good Practices in Small and Medium Enterprises (SMEs)" and the UNWTO report on activities. They have been followed by governments and international organizations to strengthen sustainable development [27].

### *B. The instruments of sustainability*

There are many instruments that help tourism to be more sustainable. They can be divided in command and control instruments, economic instruments and voluntary instruments.

*Command and control instruments*: Legislation, regulation and licensing are inter-related tools used to strengthen sustainability. Their settings are compulsory and enforceable, and can lead to sanctions and penalties if not respected. Governments can influence the participation of local stakeholders in sustainable development by strengthening the land rights of individuals or communities.

In Namibia, the Nature Conservation Amendment Act (1996) gave lands to members of the rural communities in order to establish conservancies. This gave them recognized rights and responsibilities over the management of wildlife and natural resources in agreed areas of land. It has enabled the communities to establish their own ecotourism enterprises [28].

*Economic instruments*: Financial assistance and financial incentives are tools to influence behavior and support change. It can be directed to both existing tourism enterprises and new projects. The type and amount of assistance should encourage self-sufficient enterprises and avoid dependency.

There are three ways for a firm to receive this financial help:

-Firstly, the business meets certain requirements of sustainability.

-Secondly, the core business of the firm is a form of tourism that is sustainable. For instance eco-tourism can be supported.

-Thirdly, direct investments are made to be more sustainable. For example, in Italy, Rimini, the government gives financial incentives to bathing stations for installation of photovoltaic panels [29].

*Voluntary instruments*: Guidelines and codes can draw the attention to international understanding, protection of vulnerable groups, cultural and environmental preservation, etc. For instance; in 1999, the UNWTO adopted the "Global Code of Ethics for Tourism". It is a guide addressed to tourism's stakeholders in order to apprehend the development of a responsible and sustainable tourism [32].

Certifications are also applicable to the tourist industry, and allow the different actors to prove the quality of their service. A large range of certifications can be delivered, from which the ISO14000. It gives tools to improve the environment management system. The certifications are universally applicable and suitable for all tourism suppliers [30].

Another famous example of voluntary certification is the Blue Flag Programme It is an approval of the criteria of good water quality, environmental education and information of the users, land use and development plan for the coastal zone, etc. Currently, more than 4000 beaches and marinas in 48 countries across Europe, South Africa, Morocco, Tunisia, New Zealand, Brazil, Canada and the Caribbean have been awarded with the blue flag. [31].

## V. Conclusion

As a conclusion, we have seen that tourism is a growing sector of the economy. The numerous inflows of tourists affect the destination and in order to limit the negative impacts, sustainable tourism has been developed over the years. Governments and NGOs have established guidelines, norms and certifications to motivate and organize sustainable tourism's widespread. Making tourism sustainable is now a key challenge to ensure that the tourism sector continues growing and will generate development.

We can notice that with the rise of environmental-friendly behavior, sustainable tourism is becoming more and more fashionable. It is also used as a marketing element. Nevertheless, if millions of tourists go to the same eco-lodge or visit the same wild beaches, can this places still protected? Is it the beginning of a paradoxical "sustainable mass-tourism?"

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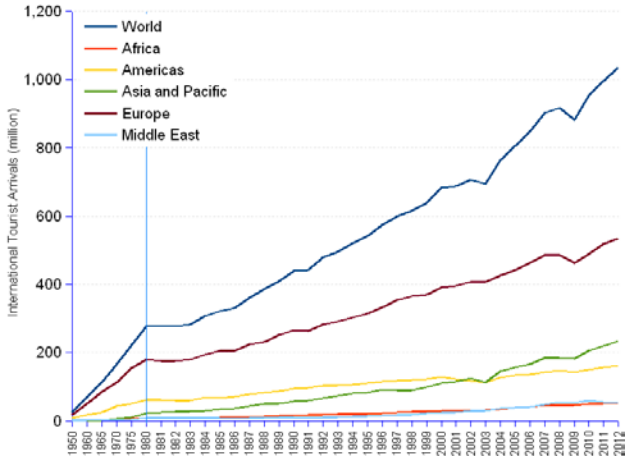
APPENDIX

*Appendix 1*




For the first time in 2012, ITA (International Tourist Arrivals) exceeded the number of 1 billion, reaching 1,035 million, 39 million more than in 2011, pursuing a continuous global growth since 1950, at an annual average rate of 6.2% (doubling time 11.6 years). During this extended period, Asia and the Pacific saw the strongest growth (12.06%), and Americas the lowest (5.08%).

Demand suffered hugely from the financial and economic difficulties experienced in many parts of the world since 2008. Roughly, the growth rates were chopped by half, the world ITA having progressed of 3.07% since 2008, against the 6.17% for the full period since 1950. Demand in Europe and in the Americas grew modestly, and it suffered a negative inflection in the Middle East. Only Asia and the Pacific showed a good average growth of 6.05%. Given the dark prospects of the world economy, it is not likely that tourism demand will soon return to its historical growth rates.

Sources: UNWTO *: World Tourism Barometer, Tourism Highlights*.

*Appendix 2*

City of Benidorm

*Appendix 3*

In order to understand the process of how local organizations adapt european, national or regional laws, one of our group members wrote an e-mail to italian tourism stakeholders. The aim was to get more information about the sustainability instruments. In our report the example of Rimini, a city on the Adriatic coast, showed us how economic instruments like financial incentives could influence the performance of a touristic area: the government gave financial incentives for bathing stations for the installation of photovoltaic cells. As there was only a short explanation on the report "Making Tourism More Sustainable (2005)A Guide for Policy Makers", our group, working on the issue of sustainable tourism, decided to contact the destination to get more information about the implementation of the law and other ongoing projects on this behalf.

We contacted the three most important players in tourism:

-"Comune di Rimini", the municipality, which guarantees the service of the Rimini Tourist Board

-"Unione di prodotti", which is an aggregation of public institutions (such as local authorities and Chambers of Commerce) and private entities (in particular business

combination) interested in the development and supply of the main attractions of the Region

-Tourism Promotion Agency Services (APT Servizi), which creates the Promotional Plan and carries out projects and the strategies for the region.

Subject: progetto Rimini sostenibilitá
ERSCHBAMER, Greta
Di 23.09.2014 16:17

Gentili signore e signori,

mi chiamo Greta Erschbamer e sono una studentessa di Bolzano.

Quest'anno sto facendo il mio Master in Francia, a SKEMA Business School in Sophia Antipolis, vicino a Nizza.

Al momento sto elaborando un progetto che riguarda la sostenibilitá di una destinazione, e, leggendo il Report "Making tourism more sustainable - a guideline for policy makers" scritto da United Nations Environment Programme and World tourism organization in 2005,

(see attached file, page 107)

ho notato che Rimini é stata menzionata come destinazione esemplare.

Rimini é stata scelta per descrivere un modo speciale per essere sostenibile: la provincia ha sovvenzionato l'istallazione di celle di energia fotovoltaica in stabilimenti balneari.

Vorrei cogliere l'occassione e chiedere se fosse possibile ricevere delle informazioni su come si é sviluppato questo intervento della provincia?

Esistono dei dati sul numero di stabilimenti balneari che hanno approfittato di queste sovvenzioni? Come si é sviluppata la cittá dopo aver ricevuto queste sovvenzioni? Sono state seguite da ulteriori sovvenzioni per rendere la destinazione piú sostenibile?

Vi ringrazio in anticipo per il Vostro aiuto.

Cordiali saluti

Greta Erschbamer
Student of SKEMA Business School
Strategic Event and Tourism Management

# Cloud Computing: despite the risks, a growing dependence

J. Toutoux, C. Rodriguez, A. Tronchon, C. Teissier, T. Tchoumakov, K. Vandenkerckhove

**Abstract – Cloud Computing is one of the hot topics in the news related to companies and to people. For several kinds of reasons, it boosts the market introduction, the flexibility and the performance of companies around the world, and improves sharing data and information between people. Nonetheless, Cloud Computing has been disputed regarding recent incidents and cloud providers are facing new challenges to answer. It appears that Cloud Computing is everybody's issue, and that solutions lie in smart behaviors, care and technology improvements.**

**Index terms – Cloud Computing, Cloud Providers, Data, Dependency, Smart devices**

## I. Introduction

LAST year, during the Microsoft Techdays, Bernard Ourghanlian, Technical Security Manager of Microsoft France, spoke for the first time of the new 'Internet of Everything" era. To support his idea, the IDATE forecasting highlighted the large growth of connected objects – more than 80 billion by 2020 [1] – and revealed the emergence of new technologies and smart devices' addiction linked to them. This proliferation of connected objects, enhanced by Cloud Computing and data storage, results from several fundamentals trends, namely big data, mobiles and sensors.

Key to boost new technologies for both public and professional needs, Cloud Computing became a couple of years ago a self-evident fact for corporation from the entire world. Allowing huge benefits for companies, such as better accessibility to data, better mobility, environmental-friendly effects and decrease of costs and infrastructures' spending, Cloud Computing is definitely the new technology to get, even for private people. The statistics corroborate this trend. Indeed, the investments in Cloud Computing are rising every year. In two years, between 2010 and 2012, the investments have doubled to reach $4.2 billion in 2012. What's more, by 2020, U.S Federal Cloud Computing market will exceed $10 billion.

As a fact, the risks related to Cloud Computing are not declining even if billion of dollars are invested to improve the technology. The hidden face of the Cloud made of hackers, cybercriminals, and insecurity of private data and new arriving challenges might frighten off. Therefore these threats cause a problem to the globalized markets and companies.

On the premise that the Cloud is the engine of innovation for connected devices and information technologies that make the world more mobile, which reasons push businesses from the whole world to invest a lot into Cloud Computing in spite of the threats that this technology lead to?

## II. Definition and major players

### A. *Definition of Cloud Computing*

NIST, the National Institute of Standards and Technology, defines Cloud Computing as "a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction" [2]. Five essential characteristics, three service

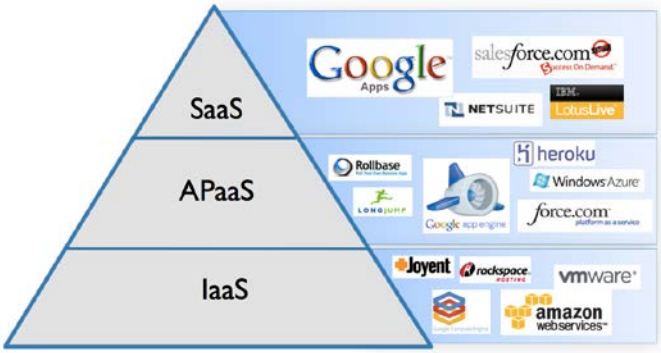
models, and four deployment models compose Cloud Computing.

Cloud Computing allows access to the on-demand network with shared resources. The customer can adapt the tool according to their needs and have an important flexibility with minimal management effort.

Three service models characterize the Cloud model:

- *Software as a Service (SaaS)* represents almost all the applications used on the Internet.
- *Platform as a Service (PaaS)* is all services used by developers to create personalized applications.
- *Infrastructure as a Service (IaaS)* allows enterprises to access to physical or virtual server with a charge use.

This picture illustrates the main actors of each service model:




The Cloud model is also composed of four deployment models:

- *Private Cloud:* this infrastructure is created for a single organization.
- *Public Cloud:* this infrastructure is created for the general public.
- *Community Cloud:* this infrastructure is created for a limited number of individuals or organizations, a targeted group.
- *Hybrid Cloud:* this infrastructure can be composed by two or more distinct infrastructures: private, public and community cloud.

## B. *The origins*

The definition and representation of Cloud Computing that we know today have nothing in common with its first apparition. Let's travel back to the 50s to understand the origins and the history of Cloud Computing.

Everything began with important mainframes that were set up in giant infrastructures (schools, government organizations, and large corporations…) because they needed a lot of place to host them. This imposing gathering of computers allowed multiple users to consult the same resources.

This "information sharing system" became virtual when IBM implemented an operating system named VM in the 70s. Every machine would possess its memory and processor but it would be possible for each user to share different resources.

At the same moment the Internet took its first steps with the apparition of ARPANET (Advanced Research Projects Agency Network). In 1971, the first email was sent and the concept of connected people all over the world started to be real. The Internet and the computers were developed and then, in the 90s, there was enough bandwidth and affordable computers available on the market to allow the middle class to accede to the Internet.

Then, the end of 90s was the perfect moment to create an online company with the apparition of a high-speed Internet and software interoperability. Salesforce.com, created in 1999, is the first standard website offering companies the possibility to download enterprise-class applications: the Cloud Computing as we know today was born [3].

Afterward, the first Internet bubble burst in 2000 restrained the spread of commercial networking; online companies were now forced to redesign their business strategy. Many of them choose to supply usable solutions and resources on the Internet rather than using it to order request or communicate with clients.

After that, this kind of computing service has been developed in the 2000s. Let's see now which major actors permit the evolution and revolution of Cloud Computing these last years.

## C. *Major players*

From the early 2000s until now, we have seen the emergence of important actors which defined and developed Cloud Computing such as Amazon,

Akamai, IBM, Enki Consulting, Rackspace, Verizon, Google, Linode, Microsoft, Salesforce… Let's focus on the major players which have revolutionized the use of Cloud computing.

The most important Cloud player is Amazon. Amazon has launched its Amazon Web services in 2006, which offer a large choice of services such as the most known, Amazon Elastic Compute Cloud (EC2), providing scalable computing capacity. Amazon invented the IaaS market and its main customers are developers. More than 330 000 developers have subscribed to the Amazon Web services and NASA, CIA and Netflix are among the largest customers.

The important Cloud enterprise of Microsoft is called Azure. This PaaS Cloud is used by millions of developers. It allows Microsoft to compete in price wars with Amazon. The users of this Cloud can access to appealing uses such as Media Services for streaming videos. Rumor says that Azure would soon host Linux. By doing that, Azure could become the main competitor of Amazon. One other business strategy of Microsoft is to offer its enterprise applications over the cloud (SQL Server database, Microsoft Office 365…).

Saleforces.com was launched in 1999. It is the first website to offer enterprise applications from a single standard website. Force.com, PaaS service, is proposed in 2007. The launching of Database.com in 2009 marked the development of cloud services for use on any device, executable on any platform and written in any programming language.

These last years, Google has tried to compete with all the Cloud markets. It already runs a popular PaaS Cloud called Google App Engine and last year Google launched its own IaaS cloud: the Compute Engine. Plus Google offers really simple and useful Cloud applications such as Google Drive and Chrome OS. Consumers appreciate these kinds of applications, which are currently becoming a real reflex of Cloud using. These strategies allow Google to stay one of the biggest Cloud players [4].

Since 1950 the Cloud computing evolution has been really impressive. According to forecasts, the value of Cloud Computing market would exceed $241 billion by 2020. For the consumers and the companies, Cloud Computing is about to become a day-to-day life tool, and will change forever our today's computing landscape. Let's think now how to live with the Cloud computing of tomorrow. Indeed, if it represents a lot of benefits for IT users, is Cloud Computing really safe?

## III. Threats and the way to deal with it

### A. *Data breaches and data loss*

What could be worse for a company that losing their sensitive data and falling into their competitors' hands? Cloud Computing introduces this type of threat. In their 2011 report, Privacy Rights Clearinghouse said "So far in 2011, we've tracked 535 breaches involving 30.4 million sensitive records. This brings the total reported records breached in the U.S. since 2005 to the alarming number of 543 millions [5]." This shows us that the security data are an important threat for companies, and especially when they are using Cloud Computing technology. A Ponemon Institute survey on the "cloud multiplier effect," commissioned by Netskope, showed that respondents estimate that every 1% increase in the use of Cloud services will result in a 3% higher probability of a data breach"[6].

Companies are aware of the risk of data losses and the impact on their wealth. It could also happen because of a human error. In 2011, at Amazon, the owner of encrypted data lost the key that unlocked it and small amounts of data were lost. This often happens when there is no backup of the data created. Also it could happen because of a technical problem; this is why companies spend millions to maintain their hardware. Nonetheless the risk is still there.

### B. *Malicious insiders and account or service traffic hijacking*

Since the IT technology is growing up, bad behaviors on the Internet have become a threat. Especially when banks and e-commerce websites are using it, it becomes very profitable for hackers to introduce themselves in a service in order to hijack their traffic and extract personal data. Dell Secureworks estimates that the sums extorted from September to December by Cryptolocker, a ransomware Trojan, were between $380,000 and $980,000 [7].

Traffic hijacking is also an important issue for companies. Phishing and fraud are really efficient. And because passwords are often reused, the attacks are not so complicated for high-skilled hackers.
The Pakistan hijacked YouTube, the 24 February 2008, therefore YouTube remained inaccessible for the planet during two hours. It was not a failure, but the result of deliberate actions from Pakistan government. [8]

### C. *Insecure APIs (application programming interface)*

Cloud Computing users are facing hidden threats for the basic user as insecure APIs. The Cloud Security Alliance (CSA) ranked the insecure APIs as one of the top threats in 2013. An Application Programming Interface can be described as the language and the message format used by an application to dialog with a database (or an operating system). Cloud Computing involves secured keys to enter to the Cloud and in fact to the data. The main issue comes from the use of these keys as a proof of secure identification and it is not. In a globalized context, this issue will have a worse impact because of the long-term use of these API keys by the major part of Cloud Computing actors all around the world.

To face this matter, developers and Cloud Computing players should be aware of the API Keys limits. The whole industry only has to adapt the tools with the importance of the data to protect. Other authentication methods may be deployed. For example, more secured protocols of communication as SSL (Secure Sockets Layers) should be mandatory [9].

### D. *Shared technology*

Cloud Computing involves collaboration between different actors, vendors and users. Within the globalization, the exchange of information has skyrocketed and many original infrastructures are now old fashioned. These components, protocols and softwares were not developed for shared and globalized infrastructures. In fact, the level of security decreases with the number of stakeholders.

To reduce this huge risk and find their vulnerability, organizations, integrated to the world of Cloud, should control, monitor and isolate their own data within the Cloud Computing thanks to different methods as operation systems audits, new way of authentication [10] and data encryption.

## IV. Benefits and the reason of a growing dependence

### A. *Cloud Computing benefits*

One of the major benefits of Cloud Computing is its flexibility. Indeed, as it is based on the Internet, you can reach any applications or data from anywhere. Furthermore, workers can easily access data from servers out of the office. It is a way to improve a more mobile and flexible work lifestyle. Today, according to an Adobe study [11], "73% of knowledge workers collaborate with people in different time zones and regions at least monthly". The Cloud allows workers to work on documents or shared apps simultaneously. They also can chat and discuss online when making changes on the document so it definitely strengthen collaboration and improves efficiency within a company.

Without the Cloud, workers have to send documents back and forth by emails and only one person can work on a document at a time. The cloud also allows companies to implement changes and try new technologies without high risk and cost. If the trial is not a success, they can easily go back to their old structure.

Businesses appear to be more efficient with the Cloud. More than just improving workers situation, the streamline processes are enhanced by getting more work done in less time and with less people. It improves efficiency at all levels. Speed, flexibility and quality of responses are some of them. Old platforms were unresponsive and difficult to manage when changes in business needs occurred.

The capacity of storage is no longer an issue for business whereas the Cloud offers an infinite amount of storage. With old computing platforms, when the internal storage was full, it meant additional costs and time. More savings in IT services means more investment in other fields.

Moreover, Cloud providers are much more reliable than an in-house provider. Indeed, providers such as Google, Amazon or Yahoo have to maintain a high level of responsiveness and reliability in order to allow companies to run their businesses no matter the

situation. They cannot offer mediocre solutions because they have a reputation at stake.

Another benefit from the Cloud is that companies can use Cloud services without a high cost thanks the pay-per-use model offered by cloud providers [12]. Historically, companies that wanted to invest in IT services, had to manage their in-house providers and computer rooms. They used to invest in storage devices and softwares. It required a big initial investment, and a high cost of maintaining those infrastructures.

Now, rather than purchasing, Cloud users simply rent them. Thus, the Cloud requires a low first initial investment that all kind of companies can afford.

Cloud providers offer an infinite amount of resources and storage. Small companies can even reduce their costs by sharing a cloud provider with other companies that doesn't need a huge amount of space.

All companies have cost savings: larger business can adapt their IT services according to demand and smaller business can develop their IT infrastructure without a big capital expenditure [13].

Whereas lots of skeptics fear about loss and leaks of data from the Cloud, it appears that the more we use cloud solutions the better the security is [14]. Indeed, Cloud providers need to adhere strict ISO security standards, so companies are more likely to lose data when losing laptops with confidential information: according to Bloomberg Business week [15], more than 800 000 laptops are lost or stolen every year in airports. The Cloud avoids these situations by keeping all your data in a centralized virtual space. The Cloud also allows backing up and restoring data when you experience a disaster or a power failure because it is stored in a safe location. Thus, you can keep on working without wasting time and money because you don't need to figure out how to recover all your data.

When they are working with the Cloud, businesses are environmentally friendly because they only use server space they need so it decreased their carbon footprint [16]. Companies use 30% less energy consumption with Cloud Computing.

Cloud Computing is an improving business which tends to grow by getting more and more options for companies using it.

Thus, companies are more and more dependent on Cloud services with lots of undeniable advantages that improves competitiveness at all stages.

### *B. The reasons of a growing dependence*

Proven as a positive and promising tendency, and this despite some disadvantages, the Cloud Computing is becoming more and more the new essential IT service for companies that wish to get the best performance abroad. With all benefits seen previously, the word-of-mouth on the market and then the glory articles, the Cloud has been a driven engine to the series of success stories: on one hand for firms using cloud services, which decided to take the plunge, and on the other hand for major Cloud providers (Amazon, Salesforce, IBM…) which benefited from this boon and are still benefiting from this growing demand on the global market. Over time, this growing demand has appeared to be a dependency in our everyday life.

Regarding companies whose performance and capitals increases result from the use of Cloud Computing services, the dependence is now pretty obvious. How get rid of a technology which brings you so many benefits? For a lot of companies, they cannot imagine the future without the cloud. And for good reasons. Indeed their success is based on a cloud business performance system. As Instagram, MediaMath and Netflix, Cloud Computing services allow companies to reach higher goals and become new leaders on the market [17].

The Cloud is considered as a good way for countries to fill the gap regarding leaders in technology and ITs and to stand out from the crowd. This is the case of some emerging countries, specifically in the healthcare market, which are actually more than catching up. 59% of the clients are using mobile health applications whereas in developed countries there are only 35% [18]; it can be explained by the need from the emerging markets, such Mexico, to change their weaknesses and their lack of basic healthcare. They can become the pioneers in healthcare mobility and not the challengers. In the globalized market, this progress could help not only the developing countries but also the developed ones: a win-win situation thanks to innovations related to the Cloud. What's more, the Europe has to catch up the USA regarding ITs and

the Cloud represents an interesting opportunity [19]. Indeed, far behind the leader in Cloud Computing, the Europe must develop skills in order to create its own Cloud for security, privacy reasons and perhaps, takes the number one place [20]. Because of this, there is a growing dependence to the cloud for countries and companies which tend to reach the top and erase the inequalities on several markets (technology, ITs, telecommunication, medias…).

From a buzzword to a legitimate service, the Cloud is also misunderstood by a majority. Indeed, according to a Business Insider survey in the USA [21], 95% of Americans thinking that they are not using the Cloud, are actually using it every day. It is easy to highlight this fact. Indeed, checking emails, a bank account, a social network, an application, watching a video on demand, storing pictures… all of these actions belong to the Cloud. People are surrounded by the cloud since decades. For instance, the generation Y used it to chat on MSN. They were already in the Cloud without being conscious of its existence. Cloud Computing is absolutely everywhere! All generations are affected with or without their consent: the future ones, which will grow up with smart devices connected to the Cloud to extract healthy data (heartbeat, breathing, red blood cell rate…); the elder ones, which acknowledge the Cloud and its services, will want to stay connected, to chat with their children and to share information thanks to it and so on.

All these reasons can explain the growing dependency that is occurring. The non-awareness of people on their Cloud usage reinforces it much more: how stop consuming something that you have no idea you are making use of? Perhaps, people have to deal with this dependency with caution and not consider the Cloud as friendly as Cloud providers want us to believe for private needs.

## V. Conclusion

Cloud Computing has been an amazing opportunity for both private and public organizations from all over the world to share data faster and easier, to succeed and to reach goals they could not afford decades ago. However the recent failures of the Cloud such as data breaches and data leak remind us how careful we have to behave with Cloud Computing and its framework. Nowadays, the huge amount of private data, coming from billions of existing devices, offers an opportunity for a new black market to exist, in which malicious organizations and people steal data, sell them and use them for bad intents. Therefore the security and the protection of all these data will be the key issue of Cloud providers and companies to solve for the next five years.

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SKEMA SOPHIA ANTIPOLIS

# Globalization

## The Threat of Deflation in the Euro-Zone

28.09.2014
Group 119

By Alison Campbell, Lea Roth, Joona Torniainen, Dominika Trzeciakiewicz, Juho Tuukkanen, and Marcus Wienhold

TEAM REPORT

# The Threat of Deflation in the Euro-Zone (September 2014)

Alison Campbell, Lea Roth, Joona Torniainen, Dominika Trzeciakiewicz,
Juho Tuukkanen, and Marcus Wienhold

***Abstract*—The aim of this paper is to give an overview about the threat of deflation in the Euro-Zone. It should serve as information to affected citizens who are not familiar with this rather uncommon economic phaenomenon. Deflation is shown by a negative rate of inflation and results when there is either a fall in the aggregate level of demand or a rise in the aggregate level of supply. Changes in these levels can have several causes, ranging from strict domestic fiscal austerity policies to the printing of foreign currencies by their respective governments. These reasons are complex to decipher and have several interdependencies. It is the task of the central monetary institution in the Euro-Zone, the European Central Bank, to even out any imbalances and threats that arise around the Euro currency. To work against deflation, the European Central Bank reduced re-financing interest and deposit rates and introduced an "Asset-backed-securities" program. The main aim of these measures is to increase the willingness of banks to lend more money to small- and medium-sized business and therefore increase the amount of money available in the market. The main challenge for the future is to find a balance between pumping money into the market to avoid deflation and at the same time limit the amount of money in the market to avoid inflation.**

***Index Terms* — Deflation, Economic Crisis, Euro-Zone, European Central Bank.**

## I. Introduction and Definition

The global economic crisis of 2007 provided a worldwide shock to markets, states, and citizens. Now, seven years later, several countries are still recovering from the consequences. The shock was caused by monetary excesses which lead to a boom and bust in several sectors, for example in the construction industry [1].

The logical, intrinsic response to balance out monetary excesses in the past has been to reduce investments and increase savings in the future. This change in strategy caused European countries such as Portugal and Spain to successfully reduce their debts and financially recover from the crisis.

However, what at first glance seems like a successful turnaround in Europe now raises a new threat that has last been seen in the mid- and late- 90s in Japan - deflation [3]. In Western economies, the threat of Inflation, which is defined as the "general increase in prices and fall in the purchasing value of money" [4], is much more common than deflation. Inflation occurs mainly in boom-times due to increased amounts of borrowing which then creates an excess supply of money in the market.

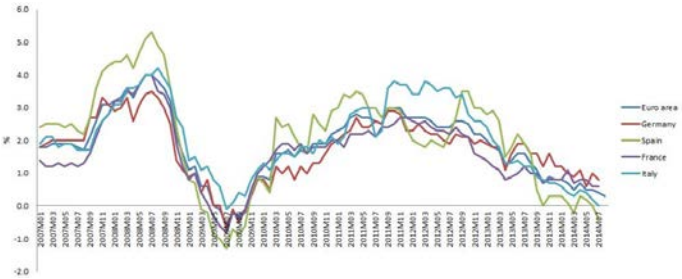


Figure 1 – Inflation Rates in Selected Countries and the Euro-Zone [20]

Deflation, on the other hand, is defined as the "decrease in the general price level of goods and services" [5] and is shown by a negative rate of inflation. According a recent report by Eurostat, the Statistical Office of the European Union, inflation in the Eurozone fell in August to its lowest level in five years.

Figure 1 shows the negative development of inflation in selected countries within the Euro-Zone in recent years. In terms of year-to-year development, inflation only amounted to 0.4 % in August 2014 [6]; this value proves how close the Euro-Zone is to a deflation of its currency and makes it crucial that the inhabitants of the Euro-Zone understand the causes of – and solutions for – this rather unknown threat. For this reason, the paper will provide an overview of the causes, consequences, and solutions of deflation, as well as an outlook into the near future.

## II. Causes for Deflation in the Euro Zone

In order to understand the consequences of deflation for a firm, individual, and state within the Euro-Zone, it is first necessary to highlight the main causes of the phenomenon.

In a normal situation, deflation is caused by two main factors:

a.) A fall in the aggregate level of demand (AD to AD1)
b.) An increase in aggregate level of supply (AS to AS1)

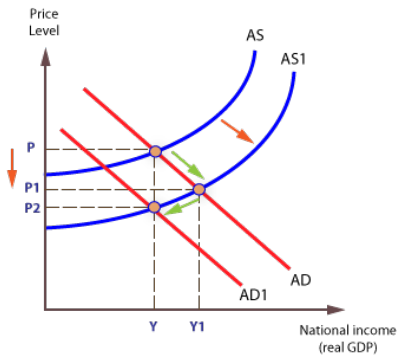


Figure 2 – Supply and Demand Curves in Deflation [7]

As shown in Figure 2, the AD curve slopes downward and describes the amount of goods the whole economy is willing to purchase at various price levels. The AS curve, on the other hand, slopes upwards and describes the level of total supply within an economy at various price levels.

In the first cause of deflation, the AD curve shifts left to position AD1, which means that consumers are not willing or able to spend the same amount of money on goods compared to the initial situation. This forces prices to go down and, consequentially, GDP to decrease. A fall in the AD curve can be caused, for example, by high interest rates and a decrease in the money supply [8].

Another main cause for deflation is the shift of the AS curve to the right (position AS1 in Figure 2). This might happen when improved technology lowers the costs of manufacturing, or the supply of money decreases; both situations lead to a reduction in prices. Deflation caused by improved technology is usually seen as "good deflation" and appears generally in the sector of electronic commodities such as mobile phones and computers [9].

Based on this general approach, there are also five main factors particularly relevant to the Euro-Zone that can be identified as causes for inflation:

Firstly, the strict fiscal austerity policy in the Eurozone is cutting consumption and increasing taxes. As a result, the already weak demand (due to general consumer pessimism) is growing even weaker [10] – the demand curve shifts to the left.

Secondly, the labor market inherits significant levels of unemployment in several European countries (Spain – 25.1%, Portugal – 14.3%, Italy – 12.6%) [11] which leads to sinking wages (bigger available labor force, i.e. more supply, means lower price), and subsequently leads to a reduction in purchasing power and therefore reduced level of demand. Again, the demand curve shifts to the left [10].

Thirdly, and probably the most systemic problem due to a shared currency, is internal devaluation. The competitiveness that Euro-Zone-countries lost during the economic crisis cannot be balanced out by currency devaluation – the strong countries in the Euro-Zone do not see the necessity and therefore intervene against a devaluation of the Euro. As a result, some countries are forced to increase their competitiveness by internally devaluing their domestic markets. This is achieved mainly through wage cuts, for which the consequences have already been described in the point above [10].

Fourthly, the interest rate cut by the European Central Bank (ECB) by 25 basis points was still not as high as the decrease in inflation – which leads to rising real interest rates. In addition, banks are still very cautious with their credit policies and offer much higher rates than the re-financing rates given from the ECB. This makes debt more expensive and keeps companies from making investments – which shifts the demand curve, on a business to business (B2B) level, to the left [ibid].

Lastly, the contrasting actions concerning the value of other major currencies, such as the US-Dollar, the British Pound, and the Japanese Yen, led to a strengthening of the Euro. While the ECB was focusing on avoiding inflation, the policymakers for named currencies increased their currency supply. This subsequently led to a higher value of the Euro in comparison and therefore made Euro-Zone products more expensive [ibid]. Combined with low domestic demand, this can also cause a severe leftward shift of the demand.

## III. Consequences for the Firm, Individual, and State

As already mentioned in the previous chapter, deflation, or the fear of it alone, has severe effects on supply and demand within an economy. In the following chapter, the paper will highlight the main effects on the firm, the individual, and the state:

### A. *Consequences for the Firm*

As mentioned above, rising real interest rates and the unwillingness of banks to lend money make it hard for companies to find financing sources for investment opportunities. This reduces their ability to grow and to compete in a global environment. In addition, deflation negatively affects the level of sales prices [12] which leads to reduced turnover and profits, and forces a firm to reduce wages or personnel in the mid-term. In other words, firms run the risk of shrinking during a deflationary period.

### B. *Consequences for the Individual*

Building on the effect on firms, individuals feel deflation through reduced purchasing power; the wage levels sink due to shrinking firms, lower wages, and excess unemployment levels. Uncertainty about future developments encourage saving rather than spending, which also leads to a reduction in the value of assets (if the demand for houses goes down, the value of houses decreases). In addition, the increase in the real value of interest provides a threat to their existence because their real debt burden increases while the value of their collateral decreases; this exposes them (and their creditors) to unexpected amount of risk and probability of default [14].

### C. *Consequences for the State*

As a result of decreased company profits and decreased income levels of the citizens, the domestic economic growth first comes to a stop and sooner or later even starts to shrink.

This directly leads to reduced tax income for the state, which firstly, reduces the ability to enforce counter-measures against deflation, and secondly, might lead to the inability to meet financial obligations and therefore to state bankruptcy.

### *D. The Euro-Zone in a Self-Reinforcing Spiral*

The analysis of the effects on the firm, the individual, and the state quickly show the significant interdependencies between the three parties. The rise in real interest rates, which should be prevented by the financial policy maker, moves the focus of individuals from spending to saving due to the possible effects mentioned above – they expect a period of deflation. This change in behavior translates into increased price pressure for firms, which then have to reduce their prices and, as described above, reduce the wage and employment levels. The individual then feels that the negative deflation expectations were justified and focuses even stronger on saving – the spiral continues [13].

## IV. The Role of the European Central Bank

The paragraph above argues that deflation stems from expectations that a period of deflation will take place. This expectation is triggered by indicators such as a rise in the real interest rate. Therefore, the central question that needs to be answered is: How does the financial policy maker intervene and set positive signals to diffuse the deflation expectations?

To answer this question, it first needs to be clarified who the responsible financial policy maker is. The European Central Bank (ECB) is the institution that is responsible for the European Currency, the Euro. Its task is to "maintain the Euro's purchasing power and thus price stability in the Euro area" [15]. This mission statement clearly shows that the ECB is the organization responsible for preventing deflation, which proves to be a severe threat to both purchasing power and price stability.

So, returning to the key question: How does the ECB intervene to avoid deflation in the Euro-Zone? The apparent central aim should be to increase the amount of money in the market. One step the ECB took was to reduce borrowing rate in June 2014 to 0.15%, an all-time low up to then [16]. Through this reduction, banks can refinance given loans at almost no cost, which should increase the flow of money into the market. However, banks are still in a period of cautiousness due to the traumatizing events after 2007, so the reductions on credit rates did not directly lead to increased credit availability. Small- and medium-sized businesses in crisis-countries particularly, such as Spain and Greece, still fall into a risk profile that keeps banks from giving them access to credit [17] – even though growth in this "Euro-Area-Periphery" (ibid) would be crucial to reduce unemployment levels and increase purchasing power.

Also in June 2014, a step to reinforce credit availability from banks to the market, that got significantly more public awareness, was to move the deposit rate to -0.1%; a historic step, as no central bank in the world had ever introduced a negative deposit rate [16]. Such a deposit rate is basically a punishment for banks who rather deposit their capital with the ECB than lending it to individuals or firms. However, this also turned out to be little more than a signal that investing is encouraged to boost economic growth [18]. After all, it was just a 0.1% decrease from the 0% it was before – and is unlikely to significantly change the risk perspectives of a bank towards customers. As long as banks perceive the cost associated with customer defaults to be higher than the 0.1% fee of the ECB, the effects of the new rate will be negligible.

Just recently, at the beginning of September 2014, the ECB reacted to the limited success of their measures. ECB-head Mario Draghi announced further cuts to both the lending rate, now at 0.05%, and the deposit rate, now at -0.2% [19]. As one could argue that these measures would culminate as quickly as the last changes to the rates, the ECB also introduced an "Asset-backed-securities" (ABS) program (ibid) which aims at buying debt portfolios from banks. The aim is to shift the credit risk from banks to the ECB and therefore reduce the banks reluctance to lend to the more risky small- and medium-sized businesses.

Draghi also announced that a "Quantitative Easing" (QE) program has been discussed [20]. In a QE scheme, large amounts of assets are purchased by the central bank; the purchase is financed by the generation of new money. The above described ABS is QE on a small scale and could be seen as a trial run for a more extensive QE, in case the new initiatives will not be able to boost economy.

All in all, it can be said that the ECB introduced sets of measures to avoid the scenario of deflation in the Euro-Zone. However, so far these measures did not have the desired impacts. Neither did they encourage banks to lend money to small- or medium-sized businesses, nor did they change the after-crisis mentality of saving of the common individual. It remains to be seen if the new ABS scheme is able to finally bring the Euro-Zone back on track towards the aim of just below 2% yearly inflation [20].

## V. Summary And Future Outlook

The prolonged low inflation is causing policy makers to become apprehensive of a surge in inflation. Charles Evans, president of the Federal Reserve Bank of Chicago, expressed his concern that policy makers will have a difficult time to take on the challenges they are faced with. Mario Draghi, head of the ECB, shares the concern for the excessively low inflation. ECB's target inflation of just below 2% was not achieved in the previous month, slowing down to only 0.4% [21].

As mentioned before, the effects of Draghi´s new measure of introducing a trial-QE-scheme have to show effects in the very near future. Economic confidence is continuing to fall, largely in the region's biggest economy, Germany. Confidence in Germany has dropped for the fourth consecutive month. Draghi promised that all available instruments will be used to ensure price stability, and will make the appropriate adjustments to the policy stance [ibid].

The biggest worry is that lowered expectations for inflation will lead to a deflationary spiral that could be extremely difficult to reverse. Investors and consumers will pullback

spending if expectations for inflation continue to drop, causing the prices to weaken. Europe's aging demographic population paired with a declining birth rate is restricting economic growth. The slow inflation adds problems such as rising debt levels and delayed spending and investment decisions [14].

Another important point that will most likely have an influence on the economic future of the Euro-Zone is how well the ECB will deal with the effects that globalization has on a globally traded currency such as the Euro. It is no longer enough to sort out domestic markets, it is crucial to see the whole picture with all its interdependencies. As argued above, internal devaluation is a main reason for deflation – it exists because companies struggle to stay competitive within a foreign environment, a highly complex issue for the ECB or the respective governments to deal with. The same holds true for a strengthening of the Euro because other countries devalue their currencies. It can only be speculated how much influence the ECB might have in hindering other countries to print their own currency, but the negative effects on the Euro-Zone of having both domestic and foreign demand declining could be devastating. The ECB therefore faces the challenge of introducing internal measures that target domestic problems, and foresee and counteract externally caused problems. This might explain why such a powerful institution yet has to deliver on its mission to "maintain the Euro's purchasing power and thus price stability in the Euro area" [15].

As a final statement, it also needs to be said that deflation can finally only be solved by the individual itself. As described in detail, the self-reinforcing spiral of deflation starts and ends with rising and falling expectations that there will be a deflation in the future. Much of the cautiousness that keeps individuals from spending money was built up in the financial crisis of 2007, which only few understand in detail but almost everyone was affected by. It is only understandable that there is distrust towards the messages and encouragements of big financial institutions such as the ECB. As soon as individuals in the Euro-Zone will start trusting their economies and the economic system in general again, the threat of deflation will most likely belong to the past – but it might take more than the changes of interest rates, and for sure it cannot only be done at the top of the socio-economic pyramid.

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