Mining FDI in Argentina: perceptions and challenges to sustainable development

Diego Vazquez-Brust (1), Natalia Yakovleva (2), Diana Mutti (3)

(1) School of Management, Royal Holloway, University of London, email: D.A.Vazquez@rhul.ac.uk
(2) Winchester Business School, University of Winchester, email: natalia.yakovleva@winchester.ac.uk
(3) Department of Geology, University of Buenos Aires, email: Diana.mutti@yahoo.com.ar

Paper submitted to 8th International Conference in Critical Management Studies “Extending the limits of neo-liberal capitalism”, University of Manchester, 10-12 July 2013.

Abstract

This paper presents results of a study, carried out during 2008-2009, that aims to assess social and environmental challenges within the gold mining industry in Argentina. Argentina is an emerging economy with a significant mineral resource endowment. Large foreign direct investment (FDI) in the mining sector in Argentina had been encouraged since 2001 with the reform of the Mining Code. Gold has become one of the most important national export commodities. However, social resistance – sustained on environmental and social grounds - to mining activities has been growing steadily and spreading throughout the country to an extent that six provinces have been forced by public pressure to introduce a legal ban to open-pit mining within their territories.

The paper proposes that causes for such social resistance can be found in differences of perceptions between companies and communities regarding the ‘quality’ of FDI in the extractive sector in Argentina. The paper applies a model for evaluating perceptions of quality of FDI drawing on theories of Multinational Corporations (MNCs) and stakeholder theory. In this model the ‘quality’ of FDI is defined as the ability of FDI to increase the welfare of the country’s population in a sustainable way within four dimensions: social, environmental, economic and organisational (i.e. governance). The proposed model combines Dicken (2003) framework for the analysis of bargaining relationships between MNCs and the state, with stakeholder and business ethics theories. The latter substantiate a normative model, whereby weak role of government is addressed by firms through adoption and implementation of codes of ethics and involvement in corporate social responsibility (CSR) practices in order to maintain social contracts and develop their businesses.

References:

1. Introduction

This paper presents preliminary results of a research project, carried out during 2008-2009, that aims to assess social and environmental challenges in the gold mining industry in Argentina. Argentina is an emerging economy with a significant mineral resource endowment. Large foreign direct investment in the mining sector in Argentina had been encouraged since 2001 with the reform of the Mining Code. Currently, gold is the third most important export commodity of the country. However, social resistance to mining activities, sustained on environmental and social grounds, is growing and spreading throughout the country. Under public pressure, six provinces have introduced legal bans to open-pit mining within their provincial territories.

The paper discusses possible causes for social resistance linked to differences in perceptions between companies and communities regarding the ‘quality’ of foreign direct investment (FDI) in the extractive sector of Argentina. The paper proposes a model for evaluating perceptions of quality of FDI, drawing on theories of multinational corporations (MNCs) and stakeholder theory. In this model the ‘quality’ of FDI is defined as the ability of FDI to increase welfare of country’s population in a sustainable way within four dimensions: social, environmental, economic and organisational (i.e. governance). The proposed model combines Dicken (2003) framework for the analysis of bargaining relationships between MNCs and the state with stakeholder and business ethics theories. The addition of the latter suggest that weak role of government in welfare provision is addressed by firms through adoption and implementation of codes of ethics and involvement in corporate social responsibility (CSR) practices in order to maintain social contracts and develop their businesses.

We assert that lack of alignment between government and community evaluation of FDI quality causes rejection of mining industry in the communities. ‘Quality’ is a relative measure, since FDI’s contribution to improvement of welfare will depend on existing welfare baseline. The welfare of least developed communities can be significantly improved by investment, but this investment may generate only marginal increases in some communities (Mold, 2004). In turn, perceptions of increase in welfare will vary according to knowledge, cultural values and expectations (Horowitz, 2008).

Discussing the case of Esquel in Argentina, this paper attempts to demonstrate how perception gaps trigger social resistance to FDI in the mining industry. Esquel is a town in the Argentine Province of Chubut, where a Canadian MNC, Meridian Gold, acquired rights to exploit a gold deposit. Baseline and environmental impact reports for a prospective mine have been approved by the provincial government. The venture, with total investment of 200 million dollars, has been judged by the government as high quality FDI, beneficial in terms of economic development and relatively environmentally safe. However, community perceptions were totally different; they saw the project as low quality FDI, environmentally dangerous, economically weak and socially divisive. In 2002, social resistance forced local authorities to call a public referendum concerning mining activity, where 80% of the population voted ‘No the mine’. Amid increasing social unrest a judge paralysed all further work on the mine site and in 2003 the company stopped working on the project. Since then, social resistance to large-scale mining activities has spread around the country, causing concerns for foreign investors into the sector.

This paper argues that a deeper understanding of impacts of mining activities and societal concerns around mining enterprises is necessary, as well as examination of mining policy in
Argentina and re-evaluation of government approach to FDI assessment. We suggest that a broad framework that includes both positive and negative economic, environmental and social effects of mining should be examined.

Firstly, the paper reviews existing academic literature concerning impacts of mining activities and relevant conflict theories. Secondly, it presents the framework for evaluation FDI impacts and then demonstrates the framework with the use of case study of Esquel in Argentina. Finally, the paper presents implications of case study analysis and suggestions arising from framework application for re-evaluation of government assessment of mining FDIs.

2. Debate on the Impacts of Mining Activities

Impacts of mining activities on social welfare has been a subject of extensive public debate and academic research for the over fifty years. Following Mold (2004), we can divide the literature between those proposing a ‘Benign Mining Model’ and those endorsing a ‘Malign Mining Model’. Within economics and management literature, there has been a steady increase in number of articles supporting ‘Malign Mining’ Model during the 1990s-2000s. This literature sees social conflict as a desirable phenomenon, the manifestation of social resistance to intrinsically negative effects of mining which have been largely hidden by mainstream economic approaches. The Malign Model proposes that mining is intrinsically unsustainable form the environmental point of view, as well as social and developmental perspectives.

2.1. Malign Mining

‘Malign Mining’ is discussed with reference to negative environmental effects, exhaustion of global non-renewable resources, irreversible environmental damage, contamination, environmental incidents and CO2 gas emissions (Hilson, 2006). Whitmore (2006, p. 312) details: “Based on the figures from the late 90’s, the mining industry has consumed nearly 10% of the world’s energy; it is responsible for 13% of the sulphur dioxide emissions, and it is estimated that it threatens nearly 40% of the untreated forests”.

Both academics and industry recognise negative environmental impacts of mining. For instance, Aitken, vice-president of Inco in 1989, when discussing public perception of mine workers stated that (quoted in Moody, 2007, p. 154): “When thinking of them, people think of people that work in big soil pits [they think of]… dust, smoke emissions, uninhabited towns, and neglected landscapes; they think about everything that is negative in terms of environmental damage. We have to recognise the reality of the facts”.

A substantial body of literature discusses effects of mining on economic development and poverty alleviation, particularly on relationships between mining and growth in developing countries. In general, this literature argues that large-scale mineral extraction is does not positively contribute to economic development in host countries, a paradox known as ‘resource curse’. However, most researchers agree that appropriate governance arrangements can mitigate negative economic effects. The most frequently discussed causes of negative socio-economic impacts of mining activities such as sector dependence (Prebisch,
dependency of volatile markets, inability to create long-term economic value, inequality in income distribution and institutional deterioration are summarises below.

**Sector Dependence** (Prebisch, 1956; Stiglitz, 2000, 2007): Countries with economies dependent on natural resources have a disincentive to invest in development of other economics sectors (Moody, 2008, MMSD, 2007). The variant known as Dutch Disease theorises an effect of adjustment in structure of most economies in order to accommodate introduction of new mining activity. Mining sector typically offers better salaries to attract the workforce needed therefore draining skilled employees (or capital if the average salaries increase) from other sectors of the economy². At the same time, the increase in mineral exports increases the pressure to revalue local currency. If this happens, other economic sectors that need cheap labour and competitive rates of exchange in order to compete with global producers (agriculture and industry) will be affected, and the economy as a whole will be orientated more and more towards mining activity. This impedes economic diversification and increases the dependence on volatile mineral markets. When a mining boom is finished and other economic sectors have shrunk, the return to traditional export sources means enormous adjustment costs.

**Volatile markets** and long cycles of decline in the value of commodities in relation to manufactured products (Davis & Tilton, 2005). Commodity markets are historically highly unstable. This instability is generally based on changes in demand, which has made long-term economic planning difficult and has reduced government investments when they are more necessary to help the domestic economy through recession (Davis & Tilton, 2005).

**Limited capability to create long term ‘economic value added’**. Mining is an ‘enclave’ activity. The inputs are brought from another place, little further value added is produced locally in the community and the end product (often a concentrate of a mineral) is exported in order to be processed abroad. The exploitation is less intensive in terms of labour than other economic activities, and many of employed workers, in particular those who are more qualified, are foreigners. Consequently, though industrial and transport infrastructure is often developed around mining enterprises, the country gets little more from mining than the resulting benefits from investments, royalties and deductions. The problem here is that local communities tend to estimate local environmental and social costs highly, while the benefits from mining mostly flow towards central government (i.e. taxes and royalties) and to foreign investors (outside from the country) (Dicken, 2004). The effect is worsened by little corporate interest in management of spillovers (mostly negative spillovers such as social impacts) or in adaptation of technologies towards local needs (Whitmore, 2006; Dicken, 2003).

**Inequality in income distribution**. Historically, income generated from mining was accumulated by governments and preferentially invested in densely populated urban areas, housing for mining and supporting infrastructure workers, further accentuating differences between level of incomes and living standards in rural and urban areas. Additionally, those who benefited the least tended to be from poorer segments of population in rural areas, thus increasing the income gap between urban communities that benefit from mining activities and rural communities that do not benefit from mining. Though impacts experienced from mining

---

² A clear definition of ‘Dutch Disease’ for its use in developing countries is that full employment is assumed and a fixed internal stock of capital before mining exploitation. None of this is valid in developed countries where there generally is unemployment and capital is foreign (Ross, 1999).
activities affect both groups. All this contributes to instability and conflict (Auty, 2001; Ledermann et al, 2002; Ross 1999, 2001a).

**Institutional deterioration.** Abundance of natural resources leads to more authoritarian governance of economic policy (poor planning, tax system, public spending), fewer objectives set for wealth distribution (Ross, 2001). A type of governance that is more inclined to invest in prolonging the mining activity that generates rapid returns rather than investing in an integrated economic model. Misuse of state revenues and corruption around mineral resource sectors in some African countries point towards poor governance as the cause of poor economic growth in mineral-rich countries.

### 2.2. Benign Mining

Model of ‘Benign Mining’ (Lederman and Maloney, 2007) present a fairly positive view of mineral resource extraction and human development. It responds to neoclassical economic tradition and understands that natural reserves are part of a country natural capital, therefore in order to crystallise latent development natural resources must be exploited in the most efficient way possible and transformed into products that generate economic capital. The ‘Benign Mining’ model argues that views on shortage of resources do not take into account the substitution capacity between more abundant minerals and less abundant minerals. It highlights the importance of technological reorganisation such as use of more efficient technologies and recycling (Ali, 2005). Simon (1999) considers that even if the mineral resources we have at our disposal are finite, the full potential of reserves is still ignored, as well as the ways in which these reserves may be used. The dominant narrative is that ‘mineral deposits that sleep’ in the ground are unproductive and miss the opportunity to generate wealth (Kunte et al, 1998).

This model that was supported by the World Bank in the 1990s is obviously the most dominant in the industry. It answers to ‘resource course’ supporters that mining should not be seen as a guarantee of development but as an opportunity. If a country is not capable of making the most out of this opportunity it is not the fault of mining industry, but a fault of country institutions that decide how to use wealth generated from mining. According to this model, social conflict is a consequence of failure of state policies to trickle down benefits to the population. The model also proposes that mining companies are highly motivated to improve social welfare and reduce conflict or discontent concerning distribution of wealth. Mining activities are certainly affected by social unrest; therefore it is in the best interest of mining companies – for instance through CSR or other voluntary approaches - to improve inequalities in the distribution of wealth generated by inefficient or corrupt governments.

In accordance with the UNCTAD (2002), there are four challenging points in the debate on mining and development:

1. It is possible to extract natural resources in a way that generates wealth. But extraction for extraction’s sake does not guarantee growth and certain conditions limit the growth.
2. Historically, some countries have benefited greatly from the mining activities (Australia, Botswana, Canada, Chile, Malaysia, Norway and Peru).^3^

---

^3^ Moody (2008) observes that Michael Powell in his book ‘Digging for Development’ argues that mining activity had little or no incident in the economic development of Australia, the growth of which originated in other factors.
3. In other countries mining activities impeded economic growth and increased poverty (Central African Republic, Guinea, Liberia, Nigeria, Sierra Leone and Zaire).

4. Institutional governability is a necessary although an insufficient condition (it is an opportunity) for mining activity to avoid having negative impacts on economic growth.

The debate - highly pertinent for Argentina - is currently focused on future growth of developing countries, especially how economic growth will be affected if they continue to exploit mineral resources. Some forecast that countries obtaining a clear benefit in the long term will be few (Moody, 2008, Ross, 2001). Owing to poor governance in the majority of developing countries, mining activities will produce less additional economic growth, but contribute to greater poverty and inequality. Others analyse changes in the mining industry in the last decade and assert that there will be an increasing institutional and global pressures on the sector to promote generation of greater positive impacts from mining (Davis and Tilton, 2008; Lederman et al, 2002). Davis & Tilton (2005) conclude that the debate should not be centred, as occurs in numerous countries, on dichotomy between mining and development and the environment, but on how policy could minimise negative impacts and maximise benefits that a country receives from mining. In particular, further research is needed to evaluate what should multinationals and supranational institutions do when a country does not have a governance level required to offer an opportunity for growth?

Among suggested solutions to increase the benefits from mining, we can mention an analysis of resistance to mining projects in Latin America, carried out by Moody (2008). Moody links resistance to mining projects with an increase in political risk and institutional instability that Latin America offers to potential investors. It is fairly common in Latin American countries that social conflict is used as a strategy by local communities to maximise benefits from companies in the inaction with government. Rather than being discouraged, social conflict is tolerated or even encouraged by local authorities who see it as a way of leverage with foreign companies. Moody (2008) argues that social conflict should be avoided because this only increases country’s political risk (political risk is a risk that can diminish the value of a company’s capital and investments), therefore reducing the attractiveness to FDI and diminishing inflows of capital and knowledge. Moody (2008) considers that more research should focus on development of good practice from the analysis of tools used in countries that recovered from or avoided ‘Dutch Disease’ and have managed to develop other sectors effectively.

One of the problems is a lack of corporate interest in managing spillovers from mining activity or lack of technological adaptation to local needs (Whitmore, 2002). This is a challenge, but it implicates companies as well as state’s responsibility in dealing with mining sector. Governments should create development and investigate opportunities that articulate projects before, during and after mining, including the long-term provision of knowledge transfer, i.e. advanced technology, community projects, (for example considering evidence from the UK, Europe and Mexico).

3. Theoretical Framework

The effects of mining activities and the surge of social conflict are contingent on several conditions, including type of mineral extracted, technology used, degree of involvement of

---

4 For Elkington (YEAR), Latin America is characterised by political risk, Africa by risk of armed conflict and Asia by child labour.
MNCs, strategies of mining companies, level of economic development and culture of the host country and so on. Host country’s decision makers and international agencies must evaluate the desirability of extractive activity on a commodity-by-commodity and site-by-site basis. Similarly, researchers must select a theoretical framework that is capable of capturing main conditions that are to be assessed in order to answer a research question. Our research uses Dicken’s framework (2003) to evaluate the effects of FDI in host economies.

Dicken (2003) frames FDI as dynamic of conflict and collaboration between transnational corporations and national states. He assumes that states and MNCs need each other, but acknowledges that the fundamental goals of the states and MNCs differ on important terms. For starters, MNCs aim to maximise profits and shareholders’ value while the states aim to maximise growth of gross domestic product (GDP). Dicken’s (2003) framework contains both ‘Malign’ and ‘Benign’ models and acknowledges that MNCs can either expand or exploit national economies, foster or distort economic development, create jobs or destroy them, spread new technology or pre-empt its wider use (Dicken, 2003, p. 277).

Dicken (2003) proposes that the understanding of major conditions (variables) of potential impact of MNCs on host economies include: a) Nature of the foreign controlled unit, b) Nature of the host economy, c) Major areas of potential MNEs impact; and d) Possible effects of foreign control in the host economy. The following charts (Figure 1 and 2) illustrate his position.

Figure 1. Major areas of potential impact (based on Dicken, 2003)
Dicken’s (2003) framework is relevant to our case study of Esquel in two aspects. We propose that conflict relates to perceived increase (or decrease) in general welfare and possible effects of foreign control of local (provincial) economies. However, in order to understand the nature of conflict, our model considers stakeholder theory (Mitchel et al, YEAR), expanding the Dicken’s framework in three aspects. First, Dicken assumes that the states are always the containers (representative) of community’s views and relationships community - firms are always mediated by the state. This is not the case in most developing countries, where a more complex relationship envelopes between states, MNCs and communities (Killbourne, 2005). The literature on environmental justice highlights that in developing countries conflicts arise due to the role of communities in bargaining relationship with MNCs is ignored and direct dealings with the government generates ‘social and environmental injustice’ (Martinez Allier, 2002). Stakeholder theory suggests that firms are increasingly aware of communities’ power resources providing them with bargaining strengths such as ability to withhold local resources or abilities to affect company’s image through alliances with global non-governmental organisations (NGOs) (Mitchell et al, YEAR). Therefore, we put forward a re-assessment of FDI quality that has to incorporate government, scientific and community evaluations. The gap between these evaluations will indicate difficulties in conflict resolution.

Secondly, Dicken assume that firm’s goal is to ‘maximise profits and shareholders’ value’, then denying the possibility that some firms either on ethical or strategic grounds (i.e. maintaining ‘social license’) may embrace a more proactive approach aiming to ‘maximise stakeholders’ value’, balancing profits to shareholders with benefits to the community and environment and short-term benefits with long-term impacts. We hypothesise than a weak role of governments can be compensated by firms through adoption and implementation of Codes of Ethics and involvement in CSR practices in order to maintain social contracts and develop their businesses. Companies will seek to pre-empty resistance or legal liabilities and compensate perceived unfair advantages obtained from bargaining with week government by
increasing their CSR involvement (Elliot & Cummings, 2006). According to Aguilera et al (2007) CSR orientation has three main motives: relational (improve relationships with communities and employees), ethic (following beliefs on corporate responsibility and sustainability) and utilitarian (improving efficiency or brand image, pre-emptying regulatory action or legal liabilities). Therefore, firms with strong CSR and stakeholders engagement orientation will be perceived by communities and government as higher quality FDI that firms only guided by profit maximisation.

Finally, Dicken’s framework proposes two dependent variables: 1) decrease/increase in welfare; and 2) potential truncation effects. Truncation effects includes economic issues such the ‘Dutch Disease’, but also cultural issues (i.e. foreign values, ideologies and habit competing with traditional values) and institutional aspects (i.e. governments failing to defend local interests, erosion of local institutions and social capital. However, drawing on Stieglitz (2007) analysis of economic globalization we suggest that truncation effects can be reconceptualised as institutional effects of FDI which have a strong impact on country’s welfare. Thus, they could be better accounted for as additional dimensions of potential impacts. Potential truncation effects on a national economy are accounted as a dimension influencing welfare rather than a separate indicator. We propose two major areas of potential impact under the ‘truncation dimension’: social cohesion and governance. Following Mold (2004), we identify income and wealth distribution as a key area of potential impact of MNCs in social cohesion, since evidence shows a strong link between increase of inequality and MNCs activities. A high degree of inequality impedes development of market, slows innovation and impedes investment (Mold, 2004,) which is particularly relevant when mining investments in Argentina are promoted as a way to develop stagnating regional economies. Social cohesion is also affected by conflicts over the use of resources and distribution of risks and by decision-making rules denying participation and transparency (Stiglitz, 2007).

Governance comprises three subareas of impact: state, market and community governance (Asfah et al, 1996). State governance refers to the existence of sound regulation and suitable enforcement (Heyes, 2000). Market governance is linked to the effect of environmental and social damage on company’s reputation, the existence of a price structure and a consumer sector that rewards ‘clean’ firms, the strength of financial institutions, insurance companies or investors that penalize socially deviating firms and the implementation of industry-wide codes and standards (Siegel, 2009). Finally, community governance includes pressure on the part of media and communities (Hasnas, 1998); social norms and customs that dictate which behaviour is acceptable (Dryzek, 1997); and genuine voluntary or philanthropic action by the firm to improve its social performance (Scherer and Palazzo 2007; Aguilera et al, 2008).

In the proposed framework, the quality of FDI is assessed as the ability of FDI to increase the welfare of country’s population in a sustainable way against social, environmental, economic and governance criteria. In general terms, high quality FDI involves greenfield investment⁵, improves balance of payments (capital inflows are higher than capital outflows and exports bigger than imports), contributes to generation of significant revenue in terms of taxes, generates significant direct and indirect employment for both high skilled and low skilled workforce, its potential to harm the environment is low, introduces technologies adapted to local resources, uses local suppliers, generates demonstrative effects on local firms, does not ‘displace’ other economic activities, engages in high value-added activities, re-invests profits

---

⁵ A form of foreign direct investment, where a parent company starts a new venture in a foreign country by constructing new operational facilities from the ground up. In addition to building new facilities, most parent companies create new long-term jobs in the foreign country by hiring new employees.
in the country, ‘legacy’ effects are not significant (i.e. environmental passives), does not contribute to increase in inequality, it is sustainable in the long term and does not involve a high level of control on the host economy potentially leading to governance issues. Figure 3, describes the ideal ‘quality’ of foreign direct investment.

**Figure 3. Ideal ‘quality’ of foreign direct investment**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Ideal outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Characteristics</td>
<td>Good Returns. Long term investment (15-20 years) Local knowledge partnerships. Sustainability strategy and structure. <strong>Transparency in Reporting, stakeholders integration.</strong></td>
</tr>
<tr>
<td>Trade</td>
<td>Exports are bigger than imports. Inputs sourced locally</td>
</tr>
<tr>
<td>Nature of the product</td>
<td>Satisfy critical local needs Contributes to the solution of global challenges/needs</td>
</tr>
<tr>
<td>Capital and linkages</td>
<td>Creates significant revenues through taxes Transfer pricing is negligible. Significant part of profits is reinvested in the country Capital inflows are higher than capital outflows. Costs to host country are low. <strong>Subsidies minimal.</strong> Value added is created</td>
</tr>
<tr>
<td>Employment and Labour</td>
<td>Creates new employment opportunities both for low skilled and high skilled workers. Employment (direct or indirect) is sustainable in the long term.</td>
</tr>
<tr>
<td>Environment</td>
<td>No damage to human health or biodiversity. Low air, water, and soil pollution Limited use of non renewable resources. Limited impact on landscapes and cultural heritage. Legacy effects are insignificant.</td>
</tr>
<tr>
<td>Industry Structure</td>
<td>No displacement or truncation of other economic activities. Demonstration effects on local firms. Competition enhanced</td>
</tr>
<tr>
<td>Technology</td>
<td>There is technology transfer. The technology is adapted to availability of local resources. There is innovative use of technology to address local challenges</td>
</tr>
<tr>
<td>Social Cohesion</td>
<td>Does not contribute to increase in inequality. Contributes to the solution of local problems. It is not divisive. Promotes local networks, entrepreneurship and integration</td>
</tr>
<tr>
<td>Governance</td>
<td>It does not involve high levels of control in the local economy. Fosters local institutions</td>
</tr>
</tbody>
</table>

4. Mining in Argentina

Argentina possesses rich reserves of mineral resources such as gold, copper, lead, zinc, nickel, cobalt, silver, tin and other minerals (Mutti et al, 2012). Though large areas of the country are not well geologically explored, most established mineral deposits are located along the Andes range, which extends for over 4,500 km and borders with Chile and Bolivia. At present, the mining sector in Argentina is relatively small. Remote locations of mineral deposits are often difficult to exploit due to high costs of exploitation and transportation. In 1993-1995, Argentina reformed its mining legislation and adopted a new national Mining Code that was originally sanctioned in 1886. The new Code promotes mining as a sector, permitting high tonnage open pit mining, delimiting regulations and promoting high technological investment, essentially destined for basic metal commodities of copper and gold. The legislation reduced entry barriers by providing incentives such as: a) import duty benefit for importing mining equipment; b) 30 years tax stability warrant and income tax benefits for companies dedicated to the mining industry; the law limits royalties to 3% at the
start of a mine; and c) stable and transparent legal environment within the mining industry (Swedish Trade Council in Argentina, 2006).

Since 1995, Argentina has attracted major FDIs in mineral exploration and exploitation. In the period between 2000 and 2005, Argentina received over US$1.8bn of foreign investment into mineral production (Swedish Trade Council in Argentina, 2006). Minerals that are currently mined at an industrial scale are copper, silver and gold – these metals account for 60% of national mineral production, whilst construction materials account for 30% and non-ferrous minerals for 10%. The leading producing provinces are Catamarca (with production of copper, gold, and lithium), Santa Cruz (gold and silver) and Buenos Aires (clays, crushed stone, limestone, and sand) as these three provinces represent 65% of Argentina’s mineral production (Swedish Trade Council in Argentina, 2006). Many mining MNCs are present in Argentina with interests in exploiting minerals such as gold, copper. Whilst several projects are under exploration or being approved by the state, other projects are being stopped following public protesting and social resistance to large-scale mining projects, several provinces banned mining activities on their territories (Chubut in 2004, Rio Negro in 2005, La Pampa in 2007, Mendoza in 2007, Tucumán in 2007, Córdoba in 2008, San Luis in 2008) and some mining projects were put on hold (see Figure 4).

**Figure 4. Map of mining activities in Argentina (Source: Mutti et al, 2012)**

In 2008, Argentine mining sector contributed 3.8% (US$21.7bn) to GDP of Argentina of US$572bn (Secretariat of Mining, 2010). The overall national export of Argentina in 2009
was estimated at US$55.8bn, of which natural gas and petroleum accounted for 7%, aluminium and steel products for 6.9% and raw minerals for 1.6% (Instituto Nacional de Estadística y Censos, 2010). About 70% of Argentina’s mineral production is exported, mainly to Asia, Europe and Brazil. According to the Secretariat of Mining (YEAR), mining industry employs 30,730 people and generally provides employment opportunities to 120,000 people directly and indirectly.

### 5. Methodology

This paper is based on the qualitative analysis of semi-structured interviews conducted in Argentina during two field trips: 1) Buenos Aires in May 2008; 2) Buenos Aires, Provinces of Catamarca, Chubut and Rio Negro in October-November 2008. The interviews were conducted with key stakeholders of the Argentine mining sector: major mining MNCs operating in Argentina; local mining companies; government officials; local government authorities; members of local community groups and organisations and others (see Table 1). Initial interviewees were approached after identifying major stakeholders of the sector based on literature review and observations; subsequent interviewees were approached using a snow-balling technique.

#### Table 1. Interview with stakeholders in Argentine mining sector

<table>
<thead>
<tr>
<th>Sectors of the society</th>
<th>Stakeholder groups</th>
<th>Number of interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>National government</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Provincial government</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Local government</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
</tr>
<tr>
<td>Civil society</td>
<td>Academics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>NGOs</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Grassroots movement</td>
<td>3**</td>
</tr>
<tr>
<td></td>
<td>Church</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Trade union</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
</tr>
<tr>
<td>Mining industry</td>
<td>Multinational companies</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Domestic companies</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Mining professionals</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
</tr>
<tr>
<td>International financial organisations</td>
<td>International financial organisations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3</td>
</tr>
<tr>
<td>Headquarters of mining companies based in developed countries</td>
<td>HQ of mining companies based outside Argentina</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Barrick</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Glencore</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Xstrata</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Yamana</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

The data analysed for this paper includes transcripts and notes from 32 face-to-face interviews and one public meeting. All qualitative sources (transcripts and notes) after being translated from Spanish into English were coded using NVivo 8 software. Coding was conducted using a priori coding categories based on the dimensions of the framework, as well
as emerging categories, as a means to finding the relationships between concepts (both local and theoretical) and exploring the gaps in perceptions of different stakeholder groups.

The data was collected around two significant projects in the recent history of the Argentine mining sector - Bajo de la Alumbrera mine in Catamarca province and El Desquite mine in Chubut province. The former is the first project to reach operational stage and is located in the province with a tradition of metal mining. Bajo de la Alumbrera is the largest mine project in Argentina. El Desquite is located in an area with developed tourism and agriculture and no mining tradition. The project did not reach operational phase due to public protesting and a referendum that lead to prohibition of this business development. Located on opposing poles of the spectrum, these cases informed our study about polarised attitudes towards foreign direct investment in the large-scale mining sector.

Limitations in availability of quantitative data forced a qualitative approach based on interviews and analysis of existing policies and regulatory frameworks. Qualitative content analysis techniques were used to analyse 32 face-to-face semi-structured interviews carried on with managers and employees from major local and international enterprises, regulators, financial community, mass media, local authorities, trade unions, NGOs, and grass root groups that represent communities’ interests. To make the most of the qualitative material our data analysis used a grounded theory strategy that emphasises developing and building theory from data and observations (Glasser and Strauss, 1998). More concretely the research follows Strauss & Corbin (1998) approach to grounded theory where preliminary categories are generated on the bases of the literature review. These categories are then used to code – following content analysis procedures - the data collected in the interviews, the results are used to integrate and modify the original conceptual hypothesis leading to successive rounds of analysis. We use the dimensions of FDI ‘quality’ presented in the previous section as initial coding categories.

6. Analysis and Results

6.1. Nature of the host economy

Argentina’s economy is based of agriculture, manufacturing (cars are the country’s second export) and tourism. During the last decade the country has sustained constant economic growth and a moderate inflation rate. The country’s government was working towards establishing exchange rate stability and there were little barriers in terms of international trade and mobility of capital. The country has a strong regulatory framework protecting private property and foreign investment. The population is well educated (illiteracy rates are negligible) and there is availability of skilled labour force. Argentina has been a pioneer in Latin-American in terms of wealth distribution, poverty reduction and workers’ right. It also has good infrastructure in terms of transport, communications and services. Additionally the country has been politically stable and its democratic institutions are already consolidated after (REFERENCES). All, the above are important foreign investment attractors (Dicken, 2003).

At meso-level there are substantial differences across regions in the country with a clear north/south divide, where northern parts of the country are lagging in terms of economic growth, infrastructure, equality and human development in general. As a consequence FDI has been historically attracted to the South while disinvestment prevailed in the south. In turn
there are important socio-demographic and economic differences between communities in Esquel (South) and Catamarca (North). Esquel is located in a fertile valley on the Andes range. It is predominantly a well educated community with middle to high income inhabitants. Esquel’s economy’s is supported by companies operating in services and public sectors of health, public administration, banking and tourism. Tourism sector in the area is very strong and grounded on natural landscape including a national park and several areas of outstanding beauty and good transport infrastructure. The villages in Catamarca, on the other hand, are populated by more vulnerable communities with significantly lower average income per person than in Esquel. They are in need of improvements in sectors of education, public health, infrastructure and opportunities for social mobility. Local economy is based on farming and subsidies from the central government.

These two different communities also share some similarities: strong pro-environmental values and mobilisation capabilities. In Esquel both are related to the influence of ‘hippies’ settlements during the 60s, while in Catamarca these values stem from traditional lifestyles anchored in indigenous communities.

Institutional and industry stakeholders argue that both in Esquel and Catamarca communities tend to be misinformed about the environmental, social and economic impacts of mining activities in their territories and strive to understand differences in the effects of different types of technologies and distinct extractive activities such as prospection, exploration (including drilling), and exploitation. Social stakeholders on the other hand, point out that mining companies that want immediate returns on their investment underestimate local communities and their reactions to mining projects.

All communities living near the mines face also similar challenges, when it comes to mining projects. They are not used to having major mining projects in their territories and struggle to deal with that. In particular, Communities are concerned with the environmental legacy of mining projects. Many projects have not been properly rehabilitated after their closure and this must be reviewed for future ventures.

6.2. Major Areas of Potential Impact

We assume that the social conflict in the Argentine mining sector is rooted in perceived or expected decline in overall welfare in the country caused by presence of mining MNCs. The potential negative impact on the environment and its consequences for human health is a major concern for local communities. This conflict is further increased by communities’ perceptions of external control over local decisions in the conditions of soft government policy towards the mining sector.

Several aspects relevant to MNCs involvement are seen to be missing from the debate within the Argentine mining sector. Four out of six main dimensions in Dicken’s framework are seldom mentioned in Argentina: nature of the product, effects on trade, capital linkages and technology. Effects on social cohesion are also back grounded. As the interviews indicated, the current debate in Argentina is organised around five interrelated main themes: 1) employment; 2) industry structure (including localisation of value added activities); 3) royalties; 4) governance; and 5) environmental effects.

Levels of environmental degradation in Argentina –water and air contamination and industrial waste - are typical of developing countries with highly concentrated urban
populations (Dasgupta et al., 2001; Hochstetler, 2002). For all practical purposes formal regulation of industrial activities did not exist until the 1980s despite high levels of industrial pollution. Growing awareness slowly mobilised community and judicial stakeholders into actions and enactment of some basic environmental legislation took place (Hochstetler, 2003). It was nonetheless poorly enforced, with the typical firm relegating matters of the environment to its legal and/or marketing departments (Delmas and Toffel, 2008).

The environment remained a low priority until 2004 when the country started a new period of growth. Firms were subject to growing stakeholder pressures to be green while enforcement authorities were given additional powers and resources to control industrial pollution (Etcharran, 2005). The spread of environmental NGO activism helped stakeholder networks target multinational enterprises operating in polluting industries. They started using strategic tools - including withholding of resources, boycotts, coalition building and conflict escalation strategies (Aaltonen et al., 2008) - to increase their visibility with the media and the civil society, forcing companies to prioritise their demands. In a nutshell, environmental abuse and degradation by firms is a major problem in Argentina and the rest of Latin America, affecting the wellbeing of communities across the continent. Enforcement of existing regulations is hampered by the social vulnerability of its citizens and under resourced state apparatus. Consequently, CSR has been promoted by many Latin American experts as the most promising way forward in addressing environmental sustainability and related social problems (Guidi et al. 2008; Haslam, 2004; Peinado Vara, 2006; Pratt and Fintel, 2002; Vives 2006). Yet the sparse empirical evidence collected to date depicts a poor ‘return’ to Latin American CSR.

The analysis suggests that economic benefits of mining for both people and the country could be optimized. Government and business initiatives on diversification of local economies have not yet generated viable and sustainable alternative economies. The Mining Code was the best possible instrument for its time (1993) within the context. Back then, both academics and supranational institutions considered that FDI was beneficial under all conditions. That perspective has now been challenged. Now it is considered that FDI can be either positive or negative and that in order to maximize profits, more state intervention is required. The growth of conflict levels, ambiguity and institutional changes indicates that in Argentina, the continuity of mining activities, without changes in the institutional framework would not be beneficial for the long-term welfare. CSR policies have an unrealised potential to contribute to conflict resolution. However, application of normative stakeholders’ theory suggests that resolution of entrenched conflict requires CSR policies rooted in a ‘moral perspective’. These CSR policies should invest in communication, research and discussions forums aimed to change the institutional framework while proactively engaging stakeholders in the design and implementation of policies aimed to enhance mining benefits and reduce negative effects.

Companies so far have not always been proactive. They have responded to a widespread feeling that social conflicts could have been avoided with a strategy of inclusive and transparent communication. However, it is possible that some of the initiatives require more time for implementation to assess its effects. However, all respondents still point at communication issues as the major challenge relevant to the social conflict. The most important issues mentioned in interviews are: lack of information, type of information (completeness and relevance, accuracy and relevance, access to factual information, strategic of ideologically biased information), social polarisation and legitimacy of social actors (see Figure 5 for detail).
Our analysis suggests that resistance to mining was triggered by a conflict between local communities and mining MNCs entering the country to exploit gold mines in response to governmental policies aimed to attract FDI. No prior resistance was found to local firms exploiting gold in the country, neither FDI in other economic activities aroused such level of resistance. The resistance to gold mining MNCs also varies from region to region. Whilst one mining MNC was rejected in the South, another project was successfully implemented in the North with minimal community resistance at the start. Though this suggested that geographical patterns may have influenced the conflict, our framework aimed to have a more detailed understanding of all the major dimensions of potential impacts of mining MNCs.

Figure 5. Gaps in perception of mining FDI in Argentina

A first round of qualitative analysis of interviews showed that in general the gold mining industry in Argentina involves greenfield investment, has improved balance of payments (capital inflows are larger than capital outflows and exports bigger than imports), has recently started to generate revenues in terms of taxes, has not generated a significant direct employment. The evidence regarding indirect employment is inconclusive for both high skilled and low skilled workforce. The mining sector has not yet displaced other economic activities (although significantly in areas where such case was possible mining investment has been halted). Its potential to harm the natural environment is high as discussed in interviews, although there is no evidence that any significant incidents have occurred. There are limited effects in terms of technology transfer, whilst use of local suppliers is limited but increasing. There is no clear evidence of demonstration effects on local firms, neither high value-added activities are located in the country, nor significant profits reinvested. Mining may contribute to increase in inequality and in the case of the poorest provinces there is clear risk of excessive level of influence on local economies.
The analysis also shows differences between the government, who tend to consider that FDI is of high quality with particular emphasis on employment, royalties and increase of exports and the analysis of unions, communities, mass media and NGOs who tend to endorse a negative view with particular emphasis on environmental harm, profit repatriation and injustice in the distribution of benefits. The interview analysis identified following elements as being linked to development of social resistance:

1) Lack of access to data and limited transparency in disclosure of information about mining activities, of its economic and environmental impacts that feeds conflict by generating distrust towards government and mining companies.

2) Both communities and government judgement of quality of FDI were to some extent subjective and ideologically biased (the government’s assessment does not follow a consistent assessment framework and data availability is limited).

3) Perceptions of low quality of FDI lead to ideas of ‘environmental and distributive injustice’ which are behind social resistance.

4) Mining company that has managed to develop a successful mineral exploitation project in Catamarca has a much stronger CSR orientation than the company that was forced to withdraw its mining activities in Esquel. The latter using a pure ‘short profit maximisation’ discourse even in communication with local communities.

5) Government is perceived as ineffective in obtaining good ‘bargaining deal’ with MNCs in the extractive sector. In turn, this undermines the legitimacy and trustworthiness of both government and MNCs.

6) Although mining is considered to be unsustainable in the long term, projects involving a timeframe over 15 years are perceived as enabling local economies to build a mass of economic and social capital enough to sustain development after the mining project has closed.

1. Conclusions

This paper discussed effects of mining activities in developing countries, using social resistance to mining in Argentina, an emerging mining country, as a case study. The review of literature explored debates around negative effects of mining on economic development and the environment and proposed to introduce an extended framework for assessment of mining investments case by case. The framework proposed to analyse ‘quality’ of FDI by combining Dicken’s (2003) framework for the analysis of FDI impacts on host economies with stakeholder theory and corporate social responsibility.

We define ‘quality’ of FDI as the capacity of FDI to increase welfare of the country’s population in a sustainable manner, considering economic, social, environmental and governance dimensions. In assessing such dimensions we look for the potential of FDI to stimulate/hamper economic development, damage/improve the natural environment, increase/decrease inequality and create/or not foreign control over local economy. FDI quality will be a result of interaction between the nature of foreign investment unit and degree of CSR orientation of MNC; nature of the host economy and the way in which the investment relates to six potential areas of impact: environment, technology, industry structure, employment, trade linkages and capital.

We conclude that in the case study of Esquel mining project, it was ‘low quality’ FDI that resulted in conflict. The lack of alignment between government and communities’ evaluation
of FDI’s ‘quality’ triggered a conflict between mining industry and the communities, suggesting that the greater the differences in assessment of FDI’s ‘quality’ between government and communities, more lengthy will be the resolution of social conflict between mining MNCs and communities.

Although the evidence is not conclusive and further research is needed, the results also suggest that companies supporting stakeholder engagement and CSR strategies when defining its relations with communities will be more successful in avoiding social resistance and compensate perceptions of unfair advantages obtained from bargaining with weak government. The mining company that managed to develop a successful exploitation in Catamarca has much stronger CSR orientation than the company that was forced to withdraw investment from Esquel. The latter using a pure ‘short profit maximisation’ discourse when initiated the mining project was abruptly rejected by the local communities.
References


Banks, Y. 2005. The CSR debate in Canada: Extractive Companies in Developing Countries. 5th ISO Social Responsibility Plenary Meeting. Vienna School of International Studies, Austria.


