10. TRQ and Rio Tinto: the Oyu Tolgoi copper mine and the obsolescing bargain in Mongolia

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Oyu Tolgoi is one of the largest known copper and gold deposits in the world. Based in the Mongolian section of the Gobi Desert, the mine is being developed by Oyu Tolgoi LLC (OT LLC) and is jointly owned by the government of Mongolia (GOM) and the Canadian company, Turquoise Hill Resources (TRQ), in which Rio Tinto has a 50.8 per cent ownership stake. Copper demand and prices are rising and reached an all-time high in May 2013. However, despite the strong incentives to finish the project, there have been numerous disruptions and hold ups, with issues including poor project management, technical challenges, disagreements between the government and investors and attempts by the GOM to renegotiate the terms of the original investment agreement. The key questions to consider in this case study include:

- Is it possible to re-write a new investment contract in these circumstances to solve the current disagreements?
- Why have the agreements negotiated to date failed to overcome the problem of the obsolescing bargain and what lessons can be learned for future contracts?
- What actions must be taken by both sides to ensure renegotiations are not necessary in the future? Is this outcome even possible? Or would TRQ/Rio Tinto's optimal strategy be to sell the mine to a competitor and exit the project?

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Guidance on how to write a case analysis can be found in Chapter 1, 'Business cases: what are they, why do we use them and how should you go about doing a case analysis?'.

A teaching note for this case is available to bona fide educators. To request a copy please email c.cote@lse.ac.uk.

Oyu Tolgoi was one of the largest known copper and gold deposits in the world.[2] Based in the Mongolian section of the Gobi Desert, 50 miles north of the Chinese border, the Oyu Tolgoi mine has held the potential to be the fourth largest copper mine in the world and contribute a third to Mongolia's GDP.[3] The mine has been developed by Oyu Tolgoi LLC (OT LLC) and has been jointly owned by the GOM and the Canadian company, Turquoise Hill Resources (TRQ). As seen in Figure 10.1, TRQ has held a 66 per cent stake in OT LLC and the GOM has owned the remaining 34 per cent. Although Rio Tinto does not have a direct stake in OT LLC, they have managed the project and have had a 50.8 per cent (majority) stake in TRQ.[4] The GOM have been funding their share of the costs through loans from TRQ, which must be paid back prior to the government receiving any royalties from the project.

Copper demand and prices have been rising and reached an all-time high in May 2021.[5] Therefore, production from OT LLC has the potential to greatly benefit its shareholders. However, despite the strong incentives to finish the project, there have been numerous disruptions and hold ups. Indeed, the mine has been besieged with problems since the signing of the 2009 Oyu Tolgoi Investment Agreement (OTIA) between the GOM, Ivanhoe Mines (later renamed TRQ) and Rio Tinto. Despite cost overruns occurring regularly in the mining business, there was a lack of clarity around the impact of cost overruns when the agreement was created. Over time, this and the general tendency known as the 'obsolescing bargain' has motivated the GOM to seek to renegotiate the OTIA with TRQ and Rio Tinto.

The mine construction project consisted of Phase 1, an open-pit mine, and Phase 2, an underground mine. Both phases were subject to signed investment contracts, but disputes still arose throughout construction. Phase 1 was completed in 2013. However, Phase 2 has remained incomplete despite an initial forecasted completion date of 2016.[6] The delays reflected a number of issues, such as poor project management of the mining operations by Rio Tinto and technical challenges which have led to a host of disagreements between the government and investors, linked to the GOM's desire to realise their expected return on the project as outlined in the original investment agreement signed in 2009.

In 2021, the GOM, TRQ, and Rio Tinto agreed to renegotiate the Underground Development Plan (UDP) after allegations from the GOM that the

agreement lacked legitimacy as it was not approved by the Mongolian parliament in 2015.[7] The GOM have been seeking to exchange their stake in the project for more stable, regular cash flows. This was the second time the GOM has successfully pushed TRQ and Rio Tinto to renegotiate the terms of its previous agreements, as seen in Figure 10.2. Furthermore, this and previous conflicts have had an impact on the TRQ share price, which has underperformed comparable benchmark firms in the sector. The key dilemma facing TRQ and Rio Tinto senior management was how to proceed in the face of these challenges. Was it possible to re-write a new investment contract to solve the current disagreements between TRQ/Rio Tinto and the GOM? Why have the agreements negotiated to date failed to overcome the problem of the obsolescing bargain and what lessons can be learned for future contracts? What actions must be taken by both sides to ensure renegotiations are not necessary in the future? Was this outcome even possible? Or would TRQ/Rio Tinto's optimal strategy be to sell the mine to a competitor and exit the project?

The global copper industry

The demand for copper has risen over 250 per cent since the 1960s,[8] as developing countries undergo urbanisation by building modern infrastructure, including supplying citizens with electricity and water. This has been particularly driven by China, who has been the world's biggest importer of copper, consuming around half of the world's supply.[9] China has also been a global leader in the development of and transition to renewable energy, and has become the world's largest producer of solar panels, wind turbines, batteries and electric vehicles (EVs). All of this has contributed towards China's strong demand for copper.[10]

Copper has been the most used metal in renewable energy technologies as it has been a relatively cheap, malleable and efficient conductor of electricity and heat.[11] Battery storage and charging technologies use copper,[12] which is why EVs require approximately four times more copper than the average car. Copper demand from EVs is expected to reach 1.2 million tonnes by 2025. This places upwards pressure on copper prices, which have been expected to rise 60 per cent by 2025.[13]

Moreover, the supply of copper has been depleting, which will also push copper prices higher. An upwards trend in copper prices has already been observed, with a 21 per cent price increase since January 2021.[14] The global copper market was predicted to have a 521,000-tonne shortfall in 2021.[15] Unless explorations discover more sites with a high-quality copper ore grade, this trend is set to continue. Some of the shortfall could be reduced by recycling copper – more than 50 per cent of the European Union's (EU) copper has been sourced from recycling.[16] But while recycled copper can mitigate the shortfall, mining operations would still be necessary to meet future demand and prevent soaring prices.

Copper has been supplied from a few regions, which has made the supply chain susceptible to disruptions, underlying copper's price volatility, exacerbated by the Covid-19 pandemic. Chile and Peru have produced 40 per cent of global copper supplies.[17] However, falling ore grades have been threatening future production in these countries and have forced mining giants to search for copper resources further afield. The average copper grade declined approximately 25 per cent between 2006 and 2016.[18] Oyu Tolgoi has a copper grade of 1.52 per cent, which is more than double the 2020 average global copper ore grade for copper mines.[19] At maximum capacity, Oyu Tolgoi would be expected to produce 480,000 tonnes of copper between 2028 and 2036.[20]

The top five largest copper mines in 2028 are predicted to be:

1. Escondida (Chile)
2. Grasberg (Indonesia)
3. Collahuasi (Chile)
4. Oyu Tolgoi (Mongolia)
5. Kamoa-Kakula (Democratic Republic of Congo)

The underground development of Oyu Tolgoi will ramp up copper production, transforming Oyu Tolgoi from the 26th largest copper mine in 2021, to the 4th largest copper mine by 2028, once Oyu Tolgoi reaches its full production.[21]

Mongolia's history and extractive sector

Mongolia is a landlocked country located in the East Asia and Pacific region, sitting between Russia and China, with a cold dry climate. The Gobi Desert covers the south of the country. It is one of the least densely populated countries in the world,[22] with a population of 3.2 million people and a GDP per capita of US$4007.30, above India, Indonesia, the Philippines and just below South Africa, Peru and Brazil.[23] Mongolia's borders contain some of the largest mineral reserves in the world,[24] estimated to be valued between US$1 trillion and $3 trillion.[25]

The Mongolian people were mostly subsistence herders in the early 20th century, looking after animals belonging to nobility, government officials or Buddhist monastery estates.[26] After the Soviet-supported revolution in 1921, which fought for independence from China, the Mongolian People's Party (MPP) came to power.[27] Mongolia's new ties to the Soviet Union led to a communist regime and a centrally planned economy.[28] Mongolia became a satellite state to the USSR and their economy benefited from subsidies estimated to total approximately 37 per cent of GDP.[29]

When the USSR collapsed, Russia suffered a financial crisis, causing a decline in Russian foreign trade and influence. This impacted Mongolia because the Soviet Union was previously their largest trade partner. This external shock

reduced economic support and forced Mongolia to seek alternative allies. The democratic revolution in 1990 saw Mongolia distance itself from Russia, and the World Bank stepped in with the Economic Rehabilitation Project, aimed at supporting Mongolia's transition.[30] During Mongolia's rapid transition to a market-based economy, living standards dropped significantly, as over a third of inhabitants recessed into poverty.[31] The transition saw an initial decline in Mongolia's GDP, as the country experienced a transformational recession, only returning to their pre-transition GDP in 2001.[32]

Prior to the democratic revolution in 1990, Mongolia's economy consisted primarily of agricultural industries. However, this changed after the transition, when a new foreign investment law was passed in 1993, allowing foreign enterprises to invest in Mongolia more easily in a simplified, two-step process.[33] Bilateral Investment Treaties (BITs) were also signed, with the intention of encouraging FDI. Between 1991 and 2001, Mongolia signed the majority of their 43 BITs, primarily with European countries.[34] This encouraged foreign enterprises to invest in Mongolia and granted access to their rich mining resources.[35] Since then, Mongolia's economy has been transformed into an economy oriented towards extractive industries, such as mining, which now account for over half of Mongolia's GDP.[36] Mongolia's dependence on extractive industries heightens their economy's volatility, rendering them vulnerable to mineral price fluctuations.[37]

Since 1990, China has become Mongolia's largest trade partner.[38] Mongolia has exported primarily coal and copper ore to China, which accounted for 55 per cent of total exports to China in 2000.[39] Mongolia's economic dependence on China has grown, increasing at an annualised rate of 19.4 per cent between 1995 and 2019.[40] China was Mongolia's primary customer for copper ore, dominating nearly 100 per cent of copper exports. Despite their economic dependence on China, Mongolian people have remained wary of Chinese investment because of past tensions in their relationship.[41]

Unemployment rates have fluctuated, generally with an upwards trend, since 1990.[42] Despite the extractive industry contributing the majority of Mongolia's GDP, it has not been the country's biggest employer. The livestock sector has employed 40 per cent of Mongolians, though it only generates 20 per cent of GDP.[43] The economy has therefore not diversified, relying heavily on the extractive industry, which could be challenging for the government, leading them to have to negotiate between sectors of high employment versus sectors contributing more towards GDP. There have been conflicts between the mining and herding sectors,[44] highlighting how the GOM may need to manage conflicts and support different sectors, despite the more significant contribution the extractive industry makes to Mongolia's GDP.

In 2011, the commodities boom made Mongolia the fastest growing economy in the world. However, when prices declined towards the end of 2012, the country was damaged more as a consequence of its debt-fuelled spending in the peak of the cycle.[45] Government debt had dramatically increased since 2011, when public debt was below 40 per cent of GDP, to 2016 when

it reached 100 per cent of GDP.[46] The country was relying on the recovery of commodity prices to reduce this debt, highlighting how vulnerable the Mongolian economy has been because of its lack of diversity.

Overall, Mongolia has proven to be a suitable location for FDI. A number of key indicators reflect this attractiveness, though challenges have remained with respect to the weak institutional environment and levels of perceived corruption. Mongolia has ranked reasonably well in the World Bank 'Doing Business' measure, coming in at number 81 out of 190 countries, ahead of such emerging markets as Brazil and South Africa. This reflects the attractiveness of the country's regulatory environment and how it is conducive to starting and operating a business. The Fragile State Indicator (FSI) has ranked Mongolia 132nd out of 179,[47] comparing it favourably with other extractive economies such as Chile and Peru. Finally, there was some work that needed to be done with respect to issues of corruption. Transparency International's Corruption Perceptions Index, which ranks countries according to perceived levels of public sector corruption, indicated that in 2020 Mongolia ranked 111 out of 180 countries. While this data has shown the promise of Mongolia as a good location for FDI, in reality there have been many challenges for TRQ and Rio Tinto in their Oyu Tolgoi JV.

TRQ history and governance

Exploration between 2000 and 2009 established Oyu Tolgoi as the world's largest undeveloped copper-gold mine.[48] Once fully operational in 2030, the mine is expected be the fourth largest copper mine in the world.[49] Ivanhoe Mines had controlling ownership of the Oyu Tolgoi project after buying out BHP in 2002, and then Rio Tinto joined Ivanhoe Mines as a strategic partner, investing US$1.5 billion in 2006.[50]

After nearly six years of negotiation with the GOM, Ivanhoe Mines, with its subsidiary Oyu Tolgoi LLC, and strategic partner Rio Tinto, signed the OTIA in 2009 to govern the JV arrangement and to provide stabilisation and mitigate the risk to the project.[51]

Key features of the agreement are:[52]

- 30 years of stable tax for the construction and operation of the project, with the option to extend for a further 20 years.[53]
- Elimination of the Windfall Profits tax.
- Erdenes MGL LLC, a Mongolian state-owned company, acquired a 34 per cent stake in the Oyu Tolgoi project, with Ivanhoe Mines maintaining the majority 66 per cent stake. Erdenes MGL LLC has the option to increase its 34 per cent interest to 50 per cent in 30 years.
- The Erdenes' share of capital investment (the 'Government Debt') will accrue interest and must be paid back prior to receiving any royalties. Erdenes has the right to contribute any required funding but is not obliged to do so.

- A management fee of 3 per cent will be charged before production, and 6 per cent thereafter.
- Four years after commercial production starts, the Oyu Tolgoi project is required to source power from within Mongolia.
- Recourse to international arbitration should disputes arise under this agreement.

The OTIA was attractive to the GOM when they signed it in 2009 because they believed having a stake in the project would grant them more control over the mine and provide them with a reliable stream of income. However, they failed to predict the consequence of cost overruns on their future royalties, overestimating their return from the Oyu Tolgoi project.

In 2010, the revised Heads of Agreement established that Rio Tinto would manage the core operations of the mine,[54] thereby receiving the 3–6 per cent management fee for the project. Rio Tinto then acquired a majority stake in Ivanhoe Mines, who changed their name to Turquoise Hill Resources (TRQ), which was an element of the memorandum of agreement (2012).[55]

Oyu Tolgoi LLC has had a board of nine people, with three nominees from Rio Tinto, TRQ and the government respectively.[56] Rio Tinto has, however, effectively controlled the Oyu Tolgoi board through a variety of rights and mechanisms.

The Oyu Tolgoi investment opportunity for TRQ and the GOM

Investing in the Oyu Tolgoi mine has posed a balance between risks and rewards for TRQ (and Rio Tinto) and the GOM.

Benefits for the GOM

Based on a report commissioned by Ivanhoe Mines Mongolia Inc. and published in August 2005, the Oyu Tolgoi project would have the following impacts on the economy of Mongolia between 2002 and 2043:[57]

- 34.3 per cent average increase in real GDP
- 10.3 per cent average increase in employment
- 11.5 per cent average increase in real per capita disposable income
- US$7.9 billion cumulative increase in government operating balance, excluding debt payments
- US$54 billion cumulative increase in exports.

Risks to the GOM

Undiversified customer base

Most of TRQ's copper has gone to China, which is 80km away from the Oyu Tolgoi mine.[58] The lack of a diverse customer base has posed a risk to Mongolia because if Chinese demand for copper slows, which it recently has, then this could disrupt the mine's profits.[59] However, this risk was somewhat mitigated by the long-term expectation for copper demand to rise due to renewable technologies.[60]

Dependency on the extractive sector

Oyu Tolgoi was the largest foreign investment project in Mongolia, and it may increase the GOM's dependency on the extractive sector. This can make the Mongolian economy more vulnerable towards commodity shocks.

Discouragement of other foreign investors

If the government was perceived as unreliable and challenges the project's progress, other future foreign investors may be deterred.

Negative public perception of the extraction of Mongolia's natural resources

Mongolia is a democracy, and so public opinion of the government's actions can influence the career prospects of politicians. If the Oyu Tolgoi project was not positively received by Mongolians, increased pressure could be placed on the government to improve the returns in the eyes of the Mongolian people. This pressure has been recurrent because of elections every four years.

Benefits for TRQ/ Rio Tinto

- Potential to produce 3 per cent of global copper production at peak production, while demand has risen.
- Access to the Oyu Tolgoi metal deposits of estimated:[61]
    - 40,500,000 tonnes of copper[62]
    - 1437.5 tonnes of gold.

The value of the copper deposit alone was estimated to be over US$386 billion if sold at the current price of US$9542.35 per tonne. The real value of the deposit could be much higher if copper prices continue to rise.

Risks to TRQ/ Rio Tinto

Large capital investment

The mine became operational in 2013 and up to that point an investment of US$6 billion was made with US$700 million paid in taxes to the government.[63] Phase 2, the underground development, was expected to cost a further US$5.3 billion, but costs have overrun and the updated estimated cost was US$6.75 billion. Further delays could accumulate higher unknown costs.

Political risk

Because the investment represents such a high portion of Mongolia's GDP, it has put the project in the spotlight, and the outcome of the mine could have a substantial impact on the government's access to capital and the living standards of Mongolian people. This could result in the Oyu Tolgoi mine being used as a political tool to gain voters. Mongolia is a democracy, so if the voters want an improved deal, this could exert pressure on the government. The democratic nature of Mongolia may harm the government's ability to plan long term, as it has presidential and local government elections every four years,[64] so planning beyond their four-year term may not benefit them in the next election. Therefore, a project like Oyu Tolgoi, which would take years to reach optimal production, may create political challenges for TRQ where the government may overvalue the present impact relative to the future return.

Institutional risk

Mongolian people have not always strictly obeyed laws. This is apparent on the roads of Ulaanbaatar, which can be chaotic.[65] However, this trait has not been restricted to ignoring traffic lights, as there have been high-level politicians involved in corruption scandals, which has weakened trust in the political system.[66] A lack of government regulation and the high commercial value of natural resources has led to transparency concerns.[67]

The obsolescing bargain

The obsolescing bargain represents the greatest risk to TRQ and Rio Tinto in the context of this project. The idea of the obsolescing bargain has been one of the oldest ideas in international business literature.[68] Applied primarily to natural resources, it holds that host governments would seek to attract MNEs to develop their resources and would offer attractive incentives for them to do so. The bargaining advantage at that stage would rest with the MNE. However, once the investment was made, and costs were sunk, exit would become difficult so the host government might try to renegotiate the initial terms, including raising taxes and royalties, and possible expropriation. This is the obsolescing bargain.

More specifically the Harvard economist, Raymond Vernon, argues that several factors cause governments to reconsider bargains over time:[69]

- Initially, accumulating the technology and skilled human capital to achieve the project may seem financially risky and overwhelmingly complex. However, once the project is successful, maintenance of the project is less challenging.
- Initially, foreign provision of technology, knowledge and skilled human capital seems indispensable. However, once local suppliers and workers close the skills gap, more inputs can be domestically supplied. Therefore, foreign company's self-sufficient structure could be resented over time by the domestic government.
- Initially, the government gratefully receives additional income from the venture, but as it starts to depend on the income over time, the government feels threatened by the power the foreign investor gains from this.
- At first the foreign venture is welcomed, but national opinion changes, especially if an opposition party replaces the previous government. Even without a change in power, criticism of favouritism towards foreign companies could influence the government.
- Initially, the foreign investors may have made a small investment, but over time this investment typically expands, and they find it increasingly difficult to abandon the venture.

Given this problem, it was not surprising that various institutional and firm responses became common. This became known as two-tier bargaining,[70] whose purpose was to reduce the possibility of an obsolescing bargain. In the first tier, home and host countries negotiated agreements that protected home-country companies, generally known as International Investment Agreements (IIAs) or BITs. In the second tier, MNEs negotiated specific entry conditions with the host government, including ownership conditions (such as joint ventures) and individual project investment agreements. It was argued that these contractual solutions mitigated the obsolescing bargain problem.[71] The Oyu Tolgoi JV in Mongolia reflected these two-tier bargaining efforts aimed at avoiding the problem of the obsolescing bargain. The Canadian-Mongolia BIT and the OTIA between TRQ and GOM have been cases in point.

The Oyu Tolgoi mine dispute

The Oyu Tolgoi mine was the biggest foreign investment project in Mongolian history,[72] and it was thought to be the largest undeveloped deposit of its type in the world, with approximately 40,500,000 tonnes of copper and 1,437.5 tonnes of gold within the site.[73] Once the mine reaches full production

capacity, it will be expected to contribute a third of Mongolia's total GDP and employ 3000 Mongolian people. The dispute between the GOM and OT LLC has been mainly caused by the asymmetric impact of cost overruns on the GOM and TRQ/Rio Tinto. When costs overrun, the date the GOM would expect to receive royalties would be delayed because there are larger loans to repay to TRQ/Rio Tinto. On the other hand, Rio Tinto would continue to receive management fees between 3 per cent and 6 per cent and accrue 6.5 per cent interest on loans to the GOM,[74] thereby causing an asymmetric cost impact for different stakeholders.

There have been cost overruns for both Phase 1 and 2 of the Oyu Tolgoi project.

Phase 1 (2009–2013)

A feasibility study in 2010 updated the expected cost of the first phase of construction – the open-pit mine – from $4.6 billion to $5.7 billion. As seen in Figure 10.2, in October 2011, MPs within the GOM announced their intention to renegotiate the OTIA to increase their stake from 34 per cent to 51 per cent.[75] This was instigated as cost increases estimated at around US$2 billion delayed by decades the start date for the government's expected dividends.[76,77] Because of the geographical complexity of the project, the actual cost was $6.6 billion.[78] This higher cost meant that the GOM were not expected to start receiving dividends from the project until 2033, rather than the anticipated 2019. In response, the GOM attempted to renegotiate some of the terms outlined in the OTIA, leading to delays and further cost increases.[79]

A copper price bust led to the GOM introducing the Strategic Entities Foreign Investment Law (SEFIL) in June 2012.[80] This was an attempt by the GOM to renegotiate the OTIA. The Mongolian president, President Elbegdorj, questioned the OTIA in a speech and raised the question about the need for its revision and Rio Tinto's accounts were briefly frozen. Rio Tinto and TRQ rejected this proposal, but the GOM continued to challenge Rio Tinto by delaying signing off the Phase 2 financing plan. This provided some bargaining power for the government to examine problematic areas of Phase 1, such as cost overruns, Rio Tinto's management fee and taxes.

Production from Phase 1, the open-pit mine, began in mid-2013.[81]

Phase 2 (2015–present)

In 2013, Rio Tinto postponed Phase 2 developments for the underground mine until the outstanding renegotiation attempts from the GOM were resolved.[82] After two years of further negotiations, and a three-year delay to construction, the UDP was signed in 2015, signalling a breakthrough for Oyu Tolgoi.

The renegotiated terms of the UDP decreased Rio Tinto's management fee from 6 per cent to 3 per cent, cancelled a regular payment to Rio Tinto, settled the tax dispute and confirmed the Phase 2 financing plan.[83] This agree-

ment was estimated to have transferred 2 per cent of the total project value to Mongolia, and this allowed Phase 2 construction to commence, with the first underground blast in August 2016. Despite the challenges caused by cost overruns in Phase 1, further cost overruns in Phase 2 were not accounted for in the renegotiations of the UDP.

When the UDP was signed, the construction of the underground mine (Phase 2) was expected to cost US$5.3 billion and reach sustainable production by the first quarter of 2021.[84] Unfortunately, due to complications causing further delays and higher costs, the updated expected completion date was October 2022 at the earliest with an inflated budget of US$7.1 billion.[85] This pushed the date Mongolia expected to receive royalty payments back to 2051, a delay of 32 years.[86] This long delay was particularly troubling for the democratic GOM, who prefer to see benefits from projects before their four-year term is over to aid re-election.

In 2017, the Canada-Mongolia investment agreement came into force to attempt to mitigate disruptions for Canadian MNEs operating in Mongolia.[87] Mongolia also introduced new banking regulations which required MNEs to use domestic banks, however Rio Tinto filed a complaint to the IMF which delayed the first bailout payment to Mongolia and forced the government into a U-turn on their banking regulation.[88]

A second tax audit demanded US$155 million from Oyu Tolgoi LLC due to unpaid taxes which OT LLC disputed.[89] A payment of US$4.8 million was made, however the remainder is still outstanding and being dealt with through arbitration under the OTIA. These tax audits have been perceived as attempts by the GOM to reclaim some value from the Oyu Tolgoi mine since their expected future royalties have diminished.

Phase 2 cost overruns had pushed total expected cost up to US$7.1 billion and potential delays up to 2.5 years, heightening tensions between Rio Tinto as the mine operator, the GOM and TRQ.[90] Rio Tinto blamed delays on technical issues and the geographic complexity of the project in 2019. Due to the cost overruns and delays preventing the government receiving royalties until a new updated estimated date of 2051 and the project incurring US$22 billion of debt for Mongolia, OT LLC agreed to appoint an independent committee of experts.[91] The committee was appointed by the GOM and TRQ to determine the cause of the cost overruns. This independent committee of experts announced in August 2021 that weak geography has not been the cause of the project's delays but rather poor project management, which contradicted Rio Tinto's claims from 2019.[92]

Misaligned incentives to minimise delays have gone some way to explaining the clashes between the two sides and eroded trust which may now be challenging to rebuild.[93] The same year, the GOM's desire to increase their stake shifted to an aspiration to trade their stake for a higher royalty.[94] This reflected the realisation that unless changes were made, their stake in the project would not provide reliable income for the GOM. The GOM hoped to scrap the UDP and renegotiate the terms.

Complicating matters further, in 2020, TRQ took Rio Tinto to arbitration over the company's obligation to secure funding, highlighting the conflict between the two firms.[95] Different opinions on how to fund the additional costs of Phase 2 were resolved in April 2021, when an updated funding plan was agreed.[96] The GOM used this as an opportunity to push again for a renegotiated UDP.

The decision point – Phase 3

Cost overruns had fuelled the GOM's fears that they would receive no dividends before the copper reserves were depleted.[97] Consequently, the GOM threatened to void the UDP agreement unless Rio Tinto and TRQ renegotiated the terms. In March 2021, TRQ/Rio Tinto and the GOM agreed to cancel the UDP from 2015 and form a new contract for the underground development of the Oyu Tolgoi mine. A new negotiation period had begun.

Preparing the case

In preparing the case analysis you might like to consider the following questions in particular:

1. Was it possible to re-write a new investment contract to solve the current disagreements between TRQ/ Rio Tinto and the GOM? Why have the agreements negotiated to date failed to overcome the problem of the obsolescing bargain and what lessons can be learned for future contracts?
2. What actions must be taken by both sides to ensure further renegotiations are not necessary in the future?
3. Was a successful renegotiation even possible? Or would TRQ and Rio Tinto's optimal strategy be to sell the mine to a competitor and exit the project.

Exhibits

Figure 10.1: Governance structure of Oyu Tolgoi LLC[98]

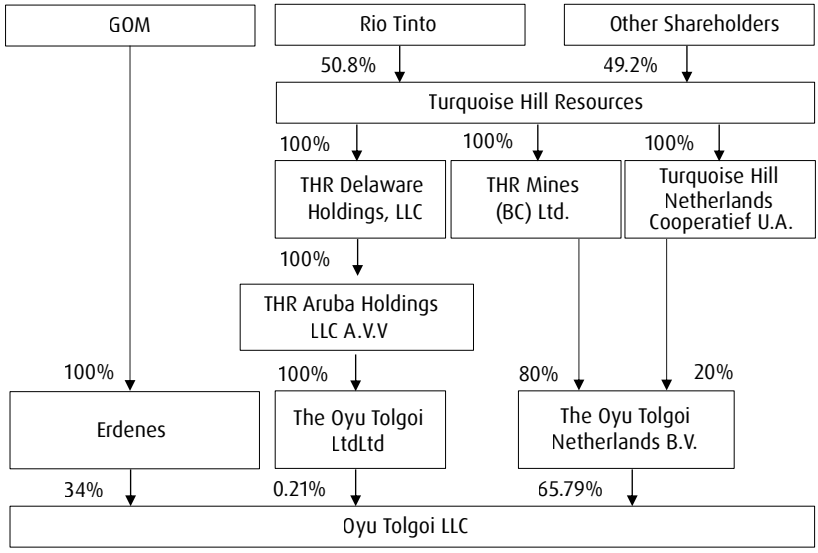
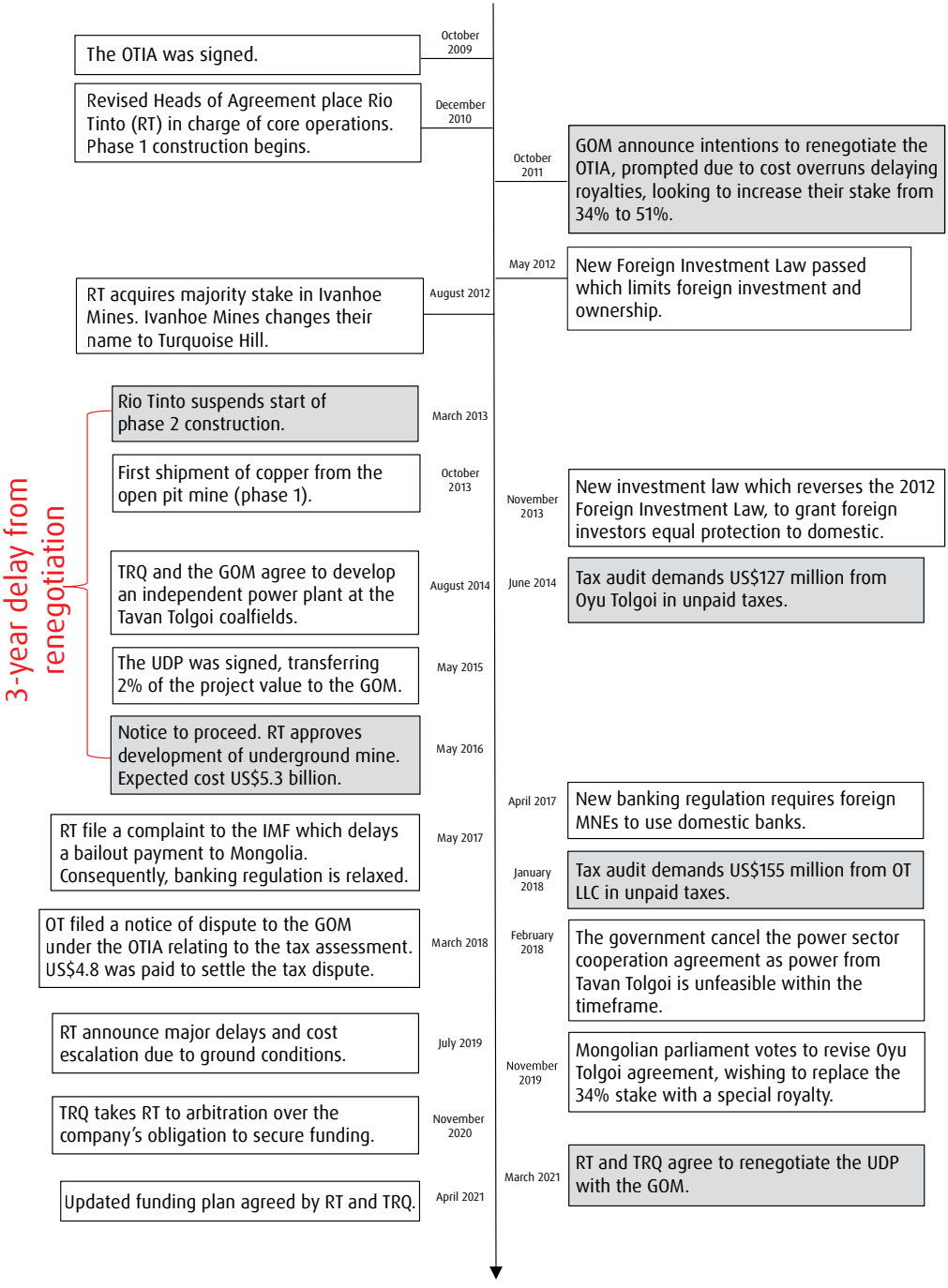


Figure 10.2: A timeline of the Oyu Tolgoi Copper Mine deal



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[1] Saul Estrin, Christine Côté, Daniel Shapiro, and Eleanor Cumpsty wrote this solely to provide material for class discussions. The authors do not intend to illustrate either effective or ineffective handling of a management situation. The authors may have disguised certain names or identifying information to protect confidentiality. An earlier version of this case was previously published by the Case Centre.

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