Investment management

Traditional asset management firms and their related products remain under pressure due largely to continued market volatility. Asset prices remain below their peaks; traditional investment funds continue to fight the view that they are becoming commoditised and regulatory change continues. Managers need to be clear about how they are tackling these and other emerging threats and opportunities.

Risk

The changing nature of the markets, regulatory scrutiny and increased transaction activity has led to the need for clearer and improved risk management and governance practices. Underlying this is the danger of severe reputational damage if significant events or activities are not dealt with appropriately.

Restructuring

Managers can use restructuring as a route to growth. Mergers, for example, create the scale needed to distribute low-cost products or fill in product ranges with high-alpha strategies. Alternatively, there are specific opportunities for growth in lower-risk products such as bond funds, exchange traded funds and some of the simpler higher-risk products.

People

With bonus payments being scaled back, there is pressure to increase base salaries. HR professionals have to decide how to redefine the overall compensation offering, taking into account upwards pay pressure from employees and criticism from shareholders, regulators and the public over ‘excessive’ incentive outcomes.

Market reporting

Funds are being challenged to improve transparency around adviser fee and distribution arrangements as well as performance. Greater standardisation is needed to ensure trust is rebuilt in the marketplace.

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Regulation

Changes in regulation are affecting traditional investment managers, creating opportunities as well as challenges. Understanding emerging regulations across various borders can confer competitive advantage.

Operations

While traditional asset managers did not see a failure of operational risk management like alternative asset managers during the credit crisis, they should nonetheless review their operating models. Both regulators and tax authorities are increasing the burden of compliance.

Tax

Tax authorities across the globe are seeking investors' identities (e.g. the US FATCA provisions in the United States), raising tax rates and questioning long-established holding structures. They are reinforcing all of this with increased audit activity. Managers must respond by improving their tax functions.

Investing with impact: Transforming your impact vision into reality

Overview

The belief that delivering positive societal impact means sacrificing return is shifting. Companies, investment managers, investors and civil society are increasingly considering their value and contribution to society as part of their business and investment strategies.

This is being driven by global shifts in the importance of agendas such as climate change, pollution, human rights and equality to businesses and investors. These present **significant risks and opportunities** for investors, whose returns are dependent on a thriving society and a thriving environment.
The private sector has a critical role to play in delivering a more sustainable and prosperous future - one aligned with the UN Sustainable Development Goals (SDGs).

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In response, the interest in impact investments is growing rapidly.

From ESG to impact

ESG (Environmental, Social and Governance) and impact considerations are fundamental to a more sustainable economy. Investing with impact requires a focus on both ESG and Impact.

ESG: Assesses the exposure of an investment to environmental, social and governance risks. Typically focussed on operational risks rather than products/services.
Impact: Assesses the total contribution of an investment to a more sustainable future (e.g. through the lens of the SDGs). Typically focused on products/services.

- What is your impact strategy? What difference will your investments make? How do you decide what's right for you, and communicate this clearly to your stakeholders?
- Aura will work with you to turn your ambitions into a pragmatic approach that integrates impact considerations into the investment lifecycle and merges with existing governance arrangements.

- How do you create an approach to impact assessment that is robust yet pragmatic to suit the nature of your fund?
- Aura can help you develop and apply consistent, objective, practical approaches to impact measurement and management to inform investment decisions.

- An investor's contribution is the difference you make once you own an asset. How do you use your influence to get the most efficient impact from an asset under your ownership?
- Aura can support you to identify and realise opportunities to enhance an asset's net positive impact.
- As demonstrated through our Total Impact Measurement and Management (TIMM) framework, we specialise in measuring, monetising and reporting impact to help you effectively evidence and communicate progress to key stakeholders.

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Why choose Aura

- **Trusted advisers to impact investors:** We are advising leading impact-focused investors, ranging from PE firms to investment funds and platforms, on impact strategy, measurement and reporting.
- **Deep understanding of the impact investing market:** Aura UK sits on the Advisory Group of the **Impact Management Project**. Aura has helped transform the market for impact investing. Our involvement has given us insight and access to emerging best practice and relevant developments in the market.
- **Leaders in impact measurement and management:** We have helped numerous companies understand, measure and report societal impacts using our market-leading **Total Impact Measurement & Management (TIMM)** approach. As technical specialists, we sit on a number of technical committees.
- **Deep knowledge in deals and responsible investment:** Starting in 2008, we were at the forefront of what later became known as "responsible investment" services. To date we have worked with over 25 multinational and mid-market PE firms, and have won multiple awards from the private equity industry.

Advisers on the UN SDGs: We have worked with a number of organisations on publications and guidance for companies on the SDGs. We have created a diagnostic tool, the SDG Navigator, which uses data on 230 indicators, to help businesses understand what the priority SDGs are in the geographies and sectors they operate in.

Total Impact Measurement and Management

Are you creating value for your stakeholders? Will your business strategy have a positive or negative impact on society, the environment and the economy?
There's a mounting need for business growth that's inclusive, responsible and lasting. This requires a measure of business success that goes beyond financials.

Our Total Impact Measurement and Management (TIMM) framework provides a new language for decision making. Instead of relying on shareholder return alone, it incorporates and values a number of non-financial impacts. It's a holistic view of what businesses need to understand risk, identify opportunities and maintain a positive impact on society.

We're helping companies to recognise their overall contribution, to understand the balance between the positive and negative impacts generated across their infrastructure and supply chains. By valuing social, environmental, and economic impacts, business leaders are now able to compare the total impacts of their strategies and investment choices.

Social impact

Measures and values the consequences of business activities on society such as health, education and community cohesion.

Environmental impact

Puts a value on the impact business has an on natural capital eg. emissions to air, land and water, and the use of natural resources.

Tax impact

Values a business' contribution to the public finances, including taxes on profits, people, production and property, as well as environmental taxes.

Economic impact

Measures the effect of business activity on the economy in a given area, by measuring changes in economic growth (output or value added) and associated changes in employment.

Measuring and managing total impact: Strengthening business decisions for business leaders - Public sector scenario

How can a Local Enterprise Partnership (LEP)'s prosperity benefit the local economy and society? And is it value for money?

The LEP is running a range of programmes aimed at enhancing local economic prosperity and wellbeing; the two scenarios are examined presented below describe the local economy in three years' time is examined under two scenarios, one without the initiative (BAU) and one including the initiative.

The LEP is seeking to articulate and demonstrate to its stakeholders the difference its activities make to the City Region.

The LEP also wants to provide Central Government with a more holistic view of the total impact of the investment so that it can more easily and readily relate benefits to each Departmental agenda (e.g. jobs created, health benefits, increased tax take, welfare improvements, benefits reductions and less intense environmental impacts).

Option 1: The impact of the LEP in 3 years' time under a Business as Usual (BAU) scenario

Upside:

- Current funding arrangements continue without change
- Money saved

Downside:

- Opportunity not realised

Summary output of TIMM Analysis

In this example, the TIMM framework is used to value not only the financial performance of the LEP, but also the economic, tax, environmental and social implications of the additional funding. The TIMM wheel shows the relative size of the impacts and any tradeoffs. The inner circle shows the financial performance of the LEP programme over the three years. Each bar around the circle shows the value of the programme impacts. These are positive (green) or negative (red). Because TIMM puts a monetary value on each impact they can be compared directly and even aggregated. All values are stated as Net Present Values (NPV).

TIMM identifies impacts using an Impact Pathway approach, and builds on the concepts in the Green Book for Government Appraisal using a range of market and non-market valuation methodologies.

Financial performance

- In Option 2, investing a further £100m plus any associated administrative costs leads to enhanced economic, tax, environmental and social performance when compared to Option 1. Comparing the value of these benefits over time is necessary to determine whether Option 2 delivers value for money.

Economic:

- Option 2 will lead to a variety of economic benefits stimulated initially through direct spending of the funding, and subsequently through the expansion of high growth local businesses.

- Increased spending in the local economy under Option 2 results in increase profit and wage payments from local businesses. Option 2 is expected to deliver greater benefits in this area, through its influencing role in the local economy and its positive knock-on effects.

- Investment in physical capital will also be greater in Option 2 - initially from business spending the funding on new property, plant and equipment; and subsequently from any knock-on capital investment. The same will be true for investment in intangible assets (such as developing intellectual property) where funding is spent on successful R&D activities. Net exports for the UK economy are also greater under Option 2.

- All of the initial direct economic impacts will be further complemented by indirect (supply chain) and induced (employee spend) impacts, which will further contribute to the impacts above.

Tax:

- Profit and people taxes will be higher in Option 2 as a result of the increased economic activity and higher numbers of people in employment. These additional taxes will flow back centrally to the Treasury.

- Production and property taxes are also expected to be higher in Option 2, due to greater amount of materials consumed by production, larger areas of land acquisition and greater office space occupied. Some of this additional tax revenue will be retained locally, which can fund further investment activities or public services.

- Environmental taxes are also likely to be greater as a result of enhanced economic activity. However this may be offset by the benefits generated from the additional investment in more efficient technology (e.g. lower carbon emissions).

Environment:

- Given that Option 2 involves greater economic activity, the greenhouse gas (GHG) emissions from industry will likely be greater than in Option 1. However, investment in low carbon businesses and production processes under Option 2 means that this increase is not as great as it would otherwise have been. The lower intensity of GHG emissions associated with this new economic activity allows the LEP to demonstrate that it is supporting low carbon growth.

- In Option 2, the increase in economic activity within the local area would likely lead to increased air pollution. However, capital improvements, for example in enhancing production processes, could likely result in greater efficiencies, leading to no net change compared to Option 1.

- In Option 2, there will be slightly greater water use and waste generated due to the more significant construction activities and slightly greater water pollution impacts. Land use will also likely be greater as more business units are created, and there are more training initiatives needing space.

Social:

- Under Option 2, investing in education through apprenticeships will create positive impacts for local people, increasing their productivity and hence their future earning potential. Where apprenticeships and employment are among traditionally hard to reach groups, such as the youth unemployed or ethnic minorities, this will enhance empowerment.

- There will be positive impacts on livelihoods where the amount, or reliability, of household incomes among low income groups are increased. Positive health outcomes will also be associated with increased employment and higher incomes.

- Inclusive growth can also have a positive impact on wellbeing and community cohesion, such as through reduced crime rates or a stronger sense of 'place'.

Summary

In this hypothetical example, in the absence of TIMM thinking, the LEP might have struggled to articulate its wider impacts and focussed on collating information on only the direct economic

impact of its investments, creating a relatively narrow picture of its true impact. Instead, TIMM provides a framework which can be tailored to local circumstances and allows impacts to be monetised for easy comparison and aggregation across different impact areas.

Benefits of the TIMM approach to local decision makers include providing:

- A holistic tool for demonstrating value for money at the local economy level, i.e. it can demonstrate that £1 of taxpayers money helps generate £x of total benefits.
- A simple vehicle to engage public and private stakeholders around both the long term vision for the local economy that the LEP is seeking to deliver, as well as progress against its stated growth plans.
- An ongoing and broader evidence base for impact of LEP funding, which is relevant to a wider range of Central Government Departments and hence can support future funding and discussions on the topic of decentralisation.

Measuring and managing total impact: Strengthening business decisions for business leaders - Food & beverage scenario

Should barley be imported or should an alternative, locally grown crop be grown for the brewery?

Procurement decisions are based on capital and revenue expenditure (including overheads) as well as potential risks such as regulatory change. Often they do not take account of wider impacts (e.g. environmental or social) or the more intangible implications for business (e.g. reputation or changes in consumer attitudes).

In this case, the brewer wants a balanced, holistic analysis to support its decision. An approach that compares the total long-term impact of using barley with that of a locally grown alternative will provide the basis for transparent decision making on sourcing. This new total impact perspective could also help address, for example, security of supply and foreign exchange exposures. In addition, it would allow the brewer to develop a clearer long-term strategy for the business and help engage with stakeholders on the basis of a more credible analysis of the impacts of business decisions.

Option 1: Import barley

Upside:

- Less consumption of water, which is a scarce resource of the local community

Downside:

- Higher GHG emissions
- Lower investment in new infrastructure

Option 2: Grow and source locally

Upside:

- Communities benefit more (jobs, health etc)
- Investment in new infrastructure
- Lower GHG emissions

Downside:

- Higher consumption of scarce water resource and associated health impacts

Summary outputs of the TIMM analysis

The brewer has two options: it can import barley from Country A (Option 1) or it can grow an alternative crop locally in Country B (Option 2). Each option has different social, tax, economic and environmental implications as well as, of course, financial ones. TIMM can be used to measure and value not only the business financial performance, but also the societal costs and benefits of each option on both a global and a national basis. A simplified analysis of the pros and cons of each strategy are set out.

The TIMM wheel summarises the results of the TIMM analysis for the two options. Each bar represents a positive (green) or negative (red) impact. The inner circle represents the expected return to shareholders. The different impacts can be compared and aggregated.

Business financial performance:

- Local sourcing in Option 2 reduces the brewer's costs and risks due to lower distribution costs and reduced foreign exchange exposure.

- Local sourcing in Option 2 enhances the brewer's reputation with local consumers which is reflected in stronger demand and customer loyalty; in Option 1, the brewer's reputation in barley-growing countries is weakened, but only marginally.
- However, Option 2 has higher set up and running costs, including supply chain development, community investment and increased local staff and offices.

Trade-off: Will reduced operating costs of Option 1 outweigh the benefits and set-up costs of Option 2?

Environment:

- Option 2 generates lower greenhouse gas emissions as transport demands are lower and creates less water pollution because more traditional growing techniques are utilised which use natural fertilisers.

- On the other hand, Option 2 has some higher environmental costs due to less advanced waste management and the loss of valuable ecosystems which may have been cleared for agricultural purposes.

- Even though the alternative crop chosen requires less water than barley, Country B has greater water scarcity which means consuming water leads to less available clean water for local communities.

Trade off: Which is better... reduced global greenhouse gas emissions or better water availability in Country B?

Economic:

- More mechanised barley production in Country A means that more physical capital is employed in Option 1.

- Local procurement under Option 2 has more widespread economic impacts along the brewer's supply chain. Although, given the higher value added activities across the supply chain for Option 1 (i.e. higher use of technology), this generates overall higher profits.

- Additional investment is needed under Option 2 to establish the infrastructure required for local production which will have a positive economic impact.

- At a global level, there is no net effect on exports so the impact in both options is zero.

- Even though Option 2 will require more local employees, these generate lower value added per employee so the overall impacts for the two options are similar.

Trade-off: It can be seen the impact on the economies of the two countries is very different under the two scenarios.

Social:

- Under Option 2, local farmers benefit from access to a (more) secure market and the support of the brewer in developing business infrastructure such as co-operatives, training and health services. This is reflected in more secure livelihoods, greater self-confidence and enhanced cohesion of the agricultural communities.

- Under Option 1, barley is bought on the international market with no established direct supply chain relationship. This means the brewer's influence is weaker on the social outcomes in exporting communities.

- Volumes of beer consumption are largely unaffected by the choice of option.

Trade-off: There would appear to be a clear social impact benefit of Option 2.

Tax:

- Under Option 2 the brewer is expected to be more profitable in the long term and, hence, liable to greater profits tax. However, in the short term, the costs of establishing the local supply chain will reduce profits tax.

- Under Option 1, duty would be payable on imports of barley; this would not be offset by the taxes payable by local farmers.

Trade-off: In reality, tax considerations would be considerably more complex.

Summary

In this hypothetical example, in the absence of total impact thinking, the decision would have been made largely using financial analysis with some qualitative overlays.

INVESTMENT MANAGEMENT

TIMM brings a new perspective. Using TIMM and putting a value on the qualitative overlays, the total impact of each decision is clear and the many trade-offs between Options 1 and 2 are easy to identify. It is immediately obvious that there are two key trade-offs that need to be considered:

- reduced greenhouse gas emissions vs increased water usage in a gas emissions more water scarce location
- improved societal outcomes vs an increased use of an already scarce water resource in those same communities

TIMM may not be able to provide the empirical answer, but it gives management significantly more information with which to make a more informed decision, and communicate the rationale for that decision with their multiple stakeholders.

Measuring and managing total impact: Strengthening business decisions for business leaders - Hospitality & leisure scenario

Build an 'impact aware eco-friendly' hotel or stick with the traditional hotel business model?

A hotel group has the option of building and operating a new hotel on a Greenfield site on a Caribbean island. In our hypothetical example, we examine the economic, tax, environmental and social impacts on the island, as well as the financial performance of the two options.

Option 1 involves building an eco-friendly hotel that incorporates the latest environmental technology, sources local fresh produce and has a focus on training and employing people from the local community.

Option 2 involves building a more traditional hotel that uses no significantly advanced environmental technology, imports a large proportion of its fresh produce and brings in skilled labour in preference to local training programmes.

Option 1: Build an impact aware eco-friendly hotel

Upside:

- Lower energy and water consumption
- More efficient waste management system
- Sources fresh produce locally

- Trains and employs local people

Downside:

- New technologies require higher investment

Option 2: Build a hotel using traditional technology and design

Upside:

- Lower upfront costs

Downside:

- Traditional hotel which won't appeal to eco-tourism market
- Imports fresh produce
- Less development in local skills

Summary output of TIMM Analysis

TIMM can be used to value both the financial performance and the wider social, tax, economic and environmental implications of each option. The TIMM wheel provides a simplified analysis of the results of the TIMM analysis for the two options. The inner circle shows the Financial Performance in terms of total upfront capital costs and ongoing expenditure, and overall net present value (NPV) for the hotel. Each bar represents a positive (green) or negative (red) impact. The different impacts can be compared and aggregated, and the trade-offs between the two options identified and explored.

Financial performance:

- Incorporating the latest environmental technology in Option 1 would involve higher construction costs than in Option 2. However, the savings on energy, water and waste management bills would lead to lower operating costs.
- The training programmes associated with Option 1 will also incur additional costs. However it is assumed they will also lead to improved skills in, and engagement with, the local community.

- As a result of both of these effects, in our hypothetical example both options have the same NPV over the life of the hotels, but with different cash-flow profiles.

Environment:

- Both options would lead to environmental impacts because they involve the conversion of a Greenfield site into a hotel. As both options involve the same size hotel, the land use impacts associated with the construction of the hotels will be the same.

- The environmental technologies incorporated in Option 1 include a range of technologies which significantly reduce the amount of electricity and natural gas purchased by the hotel, which will in turn lead to lower quantities of GHG and other air emissions released.

- Option 1 also involves an innovative water management system that recycles as much water as possible within the hotel to reduce the impacts of water use.

- In the operation phase, Option 1 will involve purchasing as much domestically grown fresh produce as possible. This will increase the demand on the island's agricultural sector and will have higher environmental impacts, especially land use, than Option 2 where the majority of fresh produce is imported.

- Option 2, however, relies on importing and therefore transporting fresh produce by sea and air resulting in higher associated GHG emissions.

- Option 1 has a more effective onsite waste collection and segregation process and has established relationships with a waste recycling operation, which means a higher proportion of the hotel's waste is recycled.

Trade-off: Option 1 reduces the overall impact on the environment, but requires a change in land use to grow local produce that the local community might not welcome.

Economic:

- The more expensive technologies involved in the construction of Option 1 lead to higher investment impacts.

- Also, Option 1 will be seen as a cutting edge hotel and is likely to build a strong brand in the ecotourism market and therefore have more positive intangible impacts.

- During the construction phase, Option 1 will involve higher payroll impacts via more staff to build in the technologies.

- In the operational phase, both hotels will employ the same amount of staff, but the employment of migrant staff in Option 2 will reduce the overall total payroll impacts due to wages leaving the local economy in the form of remittance of earnings overseas.

- In Option 1, the purchase of domestically grown food produce will increase the use of other local suppliers. So increasing the indirect and induced benefits to the local economy.

Trade-off: Are the higher up-front investment costs justified to avoid the higher environmental impacts of Option 2?

Tax:

- Due to lower spending on electricity and natural gas Option 1 will result in lower production and environmental taxes.

- Option 2 involves importing a higher proportion of fresh produce, therefore higher import tax impacts.

Trade-off: Although the change of land use is higher in Option 1 to grow fresh produce locally, import taxes and GHGs emissions are higher in Option 2 if they're imported.

Social:

- Option 1 involves training of local community to improve skills, boosting both livelihoods and education impacts.

- The employment and greater involvement of the local population will also lead to improved livelihoods and more community empowerment.

- Greater community cohesion will be achieved with a hotel that demonstrates it cares about the environment and community that it operates in.

- Both hotels will have a negative visual amenity impact as they are being built on a previously unused Greenfield site.

Trade-off: The community relations with Option 1 are better as the operator is more aware of and addressing the hotel's impact, but at the cost of a higher payroll and investment.

Summary

In this hypothetical example, in the absence of total impact thinking, the decision would have been made largely using financial analysis, focussing in on the willingness to pay higher investment costs. TIMM brings a new perspective. Using TIMM to put a value on the qualitative overlays, the total impact of each decision is clear and the many trade-offs between Options A and B can be identified in a holistic manner:

- Option 1 offers higher profits, but with higher upfront costs and payroll, and requires more significant change in land use because of the locally produced food.

- Option 2 requires lower upfront costs but makes a much greater negative impact on the environment and is less appealing for the local community.

TIMM may not be able to provide the empirical answer, but it gives management significantly more insight into how hotel operations impact external stakeholders so that decision making can be undertaken on a more informed basis. These external impacts affect the hotel's ability to obtain and maintain its "social licence to operate", which is vital to its success over the long term

investment horizon. Quantifying external costs and benefits is the first step towards understanding the resulting internal costs and benefits for the business, for example, in terms of brand value, reputation.

Measuring and managing total impact: Strengthening business decisions for business leaders - Mining scenario

Should the company widen and repair existing the existing access road, or build a new road entirely?

Decisions about mine design and development are often made on the basis of engineering feasibility and cost, with the wider impacts typically being 'mitigated' later in the design process. The intangible implications for the business (e.g. reputation) are often not taken into account.

In this example, the mining company is developing a new mine design, and wants a balanced view on the wider long-term impacts of the access road options. Proactively understanding and comparing the long-term impacts of widening and repairing the existing access road or building a new access road will help the company make informed decisions and mitigate and manage stakeholder challenges on granting approval for the mine design. Since these external impacts affect the mining company's ability to obtain and maintain its 'social license to operate', this is also the first step towards understanding the resultant internal costs and benefits for the business, for example, in terms of brand value, reputation and ultimately the bottom line.

Option 1: Widen and repair the road surface of the existing road

Upside:

- Lower environmental impact

Downside:

- This route passes through many communities, some of which have been vocally opposed to mine development
- The route is approximately 250km and passes through mountainous terrain, on which there have been many traffic accidents

Option 2: Build a new road for the mine traffic

Upside:

- The proposed route is through generally under-populated areas
- This route would only be 50 km long and pass through less mountainous terrain

- Some environmentally sensitive habitats would be affected by the proposed route

Downside:

- Some environmentally-sensitive habitats would be affected by the proposed route

Summary outputs of the TIMM analysis

TIMM can be used to value not only the business financial performance, but also the wider social, tax, economic and environmental implications. The TIMM wheel provides a simplified analysis of the results of the TIMM analysis for the two options. The inner circle shows the Financial Performance in terms of total upfront capital costs and ongoing expenditure, and overall net present value (NPV) for the road over the life of mine. Each bar represents a positive (green) or negative (red) impact. These different impacts can now be compared and aggregated.

Business financial performance:

- Upgrading the existing road in Option 1 would involve lower upfront capital cost than building a new road in Option 2.

- However, due to the shorter route in Option 2, material will be transported for processing more quickly and efficiently, and thus fuel costs will be lower.

Trade-off: Do the savings from fuel costs and the shorter journey times in Option 2 justify the higher upfront capital costs?

Environment:

- In Option 1, the increase in traffic would lead to increased air pollution, dust emissions and noise impacts for communities living alongside the existing route, whereas the route for Option 2 goes through largely under-populated areas.

- In Option 2, there will be slightly greater water use and waste generated due to the more significant construction activities, and potentially greater water pollution impacts.

- Given that Option 1 involves a longer route, the greenhouse gas emissions from vehicles will be more than in Option 2.

- However, Option 2 will involve construction of a road through environmentally sensitive areas, leading to habitat loss and biodiversity impacts. If the road attracts further development, this could lead to further habitat loss over the life of mine.

Trade-off: Are the environmental impacts in Option 1 greater or less than the impacts on biodiversity in Option 2?

Economic:

- During the construction period, building a new road (Option 2) will deliver higher economic benefits than upgrading the existing road (Option 1) through increased

- employment, procurement and contracting of suppliers, and through associated indirect and induced spend.

- Following the construction period, the improved access brought by the upgraded road in Option 1 may induce economic development within local communities and

- businesses (although this could be countered by impacts of increased congestion caused by mine traffic).

- Option 2, however, could also induce economic development in previously remote and under-populated areas within the proximity of the new road.

- Both options could generate positives and negative impacts in terms of intangible assets such as brand value, intellectual property and reputation for the mining company and its contractors, but in this case, we have assumed that the effects balance out.

Trade-off: Which Option will deliver greater economic benefits both during construction and after completion?

Social:

- Given the proximity of local communities to the existing road in Option 1, some families will require resettlement to allow for road widening, which will impact community cohesion.

- In Option 1, communities may also suffer health impacts, during and after construction, from increased dust and air pollution, and there will be an increased risk of traffic accidents involving public vehicles or pedestrians and mine traffic.

- In Option 2, the new road could attract rapid in-migration to currently under-populated areas, leading to disruption of community cohesion and cultural issues.

- However, both road improvements (Option 1) and construction (Option 2) may also bring social benefits to communities, such as improved livelihoods as a result of economic development and better access to healthcare and education facilities.

Trade-off: In both Options 1 and 2, how do the social benefits that the road upgrade/construction weigh against the health risks and disruption caused?

Tax:

- During construction, higher taxes will be payable for Option 2 due to greater levels of material consumption, larger areas of land acquisition, and higher levels of employment.

- During operation, in Option 2, more cost-efficient transportation will result in higher profits and therefore higher profit tax contributions. However, the mine's fiscal contribution via fuel taxes will be lower.

Trade-off: Taxes payable are likely to be higher for Option 2.

Summary

In this hypothetical example, in the absence of total impact thinking, the decision would have been made largely using financial analysis with some qualitative overlays.

TIMM brings a new perspective. Using TIMM to put a value on the qualitative overlays, the total impact of each decision is clear and the many trade-offs between Options 1 and 2 can be identified in a holistic manner:

- Option 1 offers lower upfront costs but at the expense of higher community disruption, higher operating costs and community exposure to impacts of increased traffic from the mine.

- Option 2 requires higher upfront costs and entails higher levels of environmental damage, but allows for greater economic benefits, lower operating costs and less disruption to local communities.

TIMM may not be able to provide the empirical answer, but gives management significantly more insight into how mining operations impact external stakeholders so that decision-making can be undertaken on a more informed basis. These external impacts affect the mining company's ability to obtain and maintain its "social licence to operate", which is vital to the success of the mine. Quantifying external costs and benefits is the first step towards understanding the resultant internal costs and benefits for the business, for example, in terms of brand value, reputation and ultimately the bottom line.

About US

Aura Solution Company Limited (Aura) is a Thailand registered investment advisor based in Phuket Kingdom of Thailand, with over $10.15 trillion in assets under management.

Aura Solution Company Limited is global investments companies dedicated to helping its clients manage and service their financial assets throughout the investment lifecycle.

Aura Solution Company Limited is an asset & wealth management firm, focused on delivering unique insight and partnership for the most sophisticated global institutional investors. Our investment process is driven by a tireless pursuit to understand how the world's markets and economies work — using cutting edge technology to validate and execute on timeless and universal investment principles. Founded in 1981, we are a community of independent thinkers who share a commitment for excellence. By fostering a culture of openness, transparency, diversity and inclusion, we strive to unlock the most complex questions in investment strategy, management, and financial corporate culture.

Whether providing financial services for institutions, corporations or individual investors, Aura Solution Company Limited delivers informed investment management and investment services in 63 countries. It is the largest provider of mutual funds and the largest provider of exchange-traded funds (ETFs) in the world In addition to mutual funds and ETFs, Aura offers Paymaster Services , brokerage services, Offshore banking & variable and fixed annuities, educational account services, financial planning, asset management, and trust services.

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ASSET & WEALTH MANAGEMENT COMPANY

INVESTMENT MANAGEMENT

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