Draft Cost Benefit Analysis: AML Phase II

Section A Descriptive Information

Problem Definition

The Phase I anti-money laundering regime came into force in 2013, which covered banks, insurance companies, financial services (e.g. investment advisers), money remitters and casinos. There is now a proposal to extend the scope AML legislation to cover additional sectors, to bring NZ in line with its FATF obligations.

The Phase II sectors are substantially larger in terms of the number of potential reporting entities. The specific components of the problem include:

- Some money laundering and terrorist financing is currently going undetected in New Zealand. In addition to domestic criminals taking advantage of the situation, New Zealand can be targeted by international criminal networks as a global weak link to inject the proceeds of crime into the international financial system.
- New Zealand has an anti-money laundering and countering financing of terrorism (AML/CFT) regime – but the regime is not appropriate to the level of risk. High risk sectors such as lawyers, real estate agents, accountants, and dealers in high value goods are not required to comply with the AML/CFT obligations. The sectors' current reporting and identity verification requirements are not sufficiently robust, and there is no supervision in place to monitor and enforce compliance. In addition, some parts of the existing AML/CFT regime such as the ability to share information between Government agencies, are not operating as well as they should.
- The gaps in the regime reduce the availability of necessary information about financial activities, hindering the effective detection and deterrence of money laundering and terrorist financing. Undetected financial crime reduces the integrity of the financial system, distorts the economy and diminishes opportunities for legitimate activities. The Government loses tax revenue, while criminals get rewarded for their behaviour.

The counterfactual involves absorbing the new regulatory and supervisory responsibilities within the established Phase I regulators without further resource assistance, following legislation changes to bring Phase II sectors under supervision in 2017. This is largely unworkable given the size of Phase II sectors and the scope of supervision that would be required to facilitate compliance with the Act.

Initiative Description

This proposal provides support for making further investment in capacity to support the introduction of Phase II AML/CFT legislation coming into force next year. Critically, further investment will enable supervisory agencies to meet their new obligations under the Act and enhancements to the Financial Intelligence Unit's (FIU) intelligence capability in response to the increased reports that will arise.

New Zealand is a member of the Financial Action Task Force (FATF). FATF set standards and undertakes reviews of member countries. The operational effectiveness of New Zealand's AML/CFT regime will be assessed in 2020. A poor review could have implications for New Zealand, including reputation.

The government has agreed to speed up Phase II, which will see more sectors brought into the AML/CFT regime, as described above. The recent National Risk Assessment (NRA) depicts these sectors as being moderate to high risk from exposure to money laundering and terrorist financing activities. If the regime is to achieve its goal and New Zealand is to meet its FATF obligations these entities will need to be supervised and the information generated incorporated into the existing intelligence framework.

Above all, the opportunity presented by this initiative/proposal involves capitalising on this legislative change to increase the likelihood of detecting and deterring money laundering and terrorist financing activity, thereby interrupting a key component in the financial crime system both in New Zealand and internationally. Possible benefits include the disruption of money

laundering and terrorism financing (where funds are being laundered this extends to the underlying predicate offences), increase and improve financial intelligence sharing for the purpose of meeting AML/CFT objectives and building a coordinated approach to the investigation and prosecution of ML/TF crimes, as well as financial crimes in general.

Alternative Options Considered

The options depicted in this analysis were derived from a longer list of regulation and supervision policy options that are discussed in more detail in the RIS. The policy work identified a broad range of possible regulatory formats, in terms of the breadth and depth of supervision, as well as the extent to which the Phase II sectors are covered (including if at all), the type of regulatory entity (or entities) required to undertake the supervision task and implementation and timing of introducing sectors to supervision.

A full CBAx was performed only on one option. This option was - all lawyers, conveyancers and accountants with full supervision, real estate agents with vendor only due diligence, and high value dealers consisting of full supervision on motor vehicle dealers and jewellers only. Rough options costing for changing the obligations and cash thresholds for high value dealers suggests that there is an approximately proportional reduction in costs and benefits between the first option and the balance of the options, meaning that the BCR is approximately equal between the options.

Section B Impact Analysis

Impact Analysis

There are four main impacts of this proposal for which monetary values have been calculated and that form the basis of the benefit cost ratio (BCR):

- government expenditure on the initiative;
- revenues for government from seizures and forfeitures;
- business and consumer compliance cost, and
- reduction in crime from the restraint and confiscation of funds from money laundering.

This CBAx model presents a credible, conservative estimate of the impact of the intervention. In addition to the impacts calculated (above), there are likely to be additional strategic and societal benefits in terms of:

- deterrence of Money Laundering as a direct result of increased monitoring, and consequent benefits from a reduction in precedent crime,
- decrease in social harm resulting from the decrease in crime, and
- an improved international reputation leading to better trade terms and an increased perception as a 'safe' country with which to do business.

Strategic Benefits

Deterrence Value

It is highly likely that increased vigilance over transactions that add cost and effort to money laundering will deter money laundering activity. Monetising this impact is highly challenging, however, as international comparator nations implemented the equivalent of NZ Phase I and Phase II simultaneously, so it is difficult to ascertain the marginal impact from an expansion of regulation. Additionally, the level of NZ's so-called shadow economy is small by international standards (at 8%) further complicating efforts to derive deterrence effects.

Based on the likely scale of the shadow economy, we anticipate that it would not be *unreasonable* to assume that three times more laundering activity is deterred than the amount of crime directly interrupted by anti-money laundering policy. This is based on research on the indirect compliance impacts of tax auditing, which conservatively estimate that 6 times as much tax evasion is deterred relative to the revenue generated by audits.

Behavioural economics and recent research suggests, however, that this compliance is based on social shaming and psychological effects that may not be as strong where criminal activity is concerned, so in estimating the deterrence effects of money laundering the impact is arbitrarily halved. If this impact were imputed, it would have the effect of increasing benefits by 3 fold uniformly, resulting in an additional $4 - $5bn in reduced criminal activity over 10 years. These values are not currently included in the totals due to a lack of strong supporting evidence.

Decreases in Social Harm

Estimates of the social cost of drugs can also be calculated, but the calculation requires layering many assumptions together to provide an estimate. Preliminary figures have been calculated to provide context for the scale of social harm that might be prevented by this legislation, but is subject to significant error, given the number of assumptions needed to arrive at a result.

A high-level estimate of the decrease in social harm from drugs can be calculated using Walker's estimates of the proportion of money laundering supported by drug crime, and applying social harm of drugs indices developed by McFadden.

Based on Walker's estimates of ML we calculate that approximately 55% of ML is generated by and reinvested in the drug trade. McFadden (2016) estimates total profit from the drug trade in New Zealand at $522M p.a. with total community harm of $437M.

This can be used to generate a proportional multiplier (0.46) wherein:

VALUE OF DRUG HARM AVOIDED = ML Restrained * 55% Drug ML Revenue / Total ML Revenue * ($437M Social Harm / $522 Total Profit from Drug Sales)

This figure is then multiplied by the total value of crime restrained (value of restraints * 3.3) (see: Modelled Benefits), which implies

that very approximately $800M in social harm is avoided by the restraint and seizure of funds from money laundering. This estimate is considered indicative only, and is presented in the impacts table as a 'descriptive' figure for context.

Improved International Reputation

In 2012, New Zealand was removed from the EU white list of counties over a perception about the country's weak money laundering and terrorism financing controls. This affected the ability of EU trading partners to accept and acknowledge customer identification performed in New Zealand, leading to increased compliance costs for trading with the EEC.

This list no longer formally exists, so it is not clear whether recent changes to the NZ frameworks around trusts, ML, and incorporation would have been sufficient for it to re-establish its place on the white-list. It is worth noting, however, that the exclusion from the white list was allegedly attributable to the low costs / low regulation of establishing shell companies.

There may, however, be a benefit to increased compliance with FATF obligations around ML, particularly as it demonstrates New Zealand's continuing role as a 'good international partner.'

Modelled Benefits

Key Model Drivers and Assumptions

The **benefits model** provides high-level estimates of the total amount of money likely to be restrained by the Phase II expansion of supervised sectors. This value is then used to calculate the crime prevented by those restraints, using proceeds of crime multiplier of 3.3, which is derived from the Proceeds of Crime Disruption Index (McFadden, 2015). The multiplier effect is based on the reinvestment of the proceeds of money laundering back into criminal enterprise, and it is based on a model of a conceptual business where some profits are reinvested for future growth and some are retained by the owners and spent on necessities and lifestyle expenses. The paper makes an estimate of the amount of profit spend on 'legitimate' activity, versus the amount reinvested and proposes that the relationship between disrupted money laundering via restraints disrupts investment, thereby disrupting criminal activity.

Model Background

The seizures are from certain sectors identified as 'high risk', and it is assumed that the amount of ML in those sectors is expected to be proportional (by GDP) to the ML in the Phase 1 sectors. This assumption is considered justifiable on the grounds that both the financial sector as well as the sectors in Phase 2 are considered 'high risk' sectors, and therefore are likely to facilitate similar amounts of money laundering. This assumption is further underpinned by the fact that estimates of ML in economies are generally estimated and reported on a percentage of GDP basis. For example, OECD research on total shadow economies, as well as comparative data on restraints and forfeitures is reflected by the OECD, FATF, and academic articles as a percentage of GDP.

It is acknowledged that at a sector by sector level, increases in restraints and prevention of crime will not directly correlate with greater regulation of a larger proportion of the GDP, but there is sufficient evidence to utilise this simplifying assumption given the scale of the increase of the regulation (more than doubling the size of the economy currently subject to regulation).

The assumption of approximate proportionality at an aggregate level is attributable to the fact that the benefits of regulation derive from the regulation of the entire economic network of laundering, and an increase in regulation and supervision creates an environment in which greater money laundering can be detected and prosecuted. For example, if lawyers, accountants, bankers, and real-estate are captured virtually all of the real-estate value chain is being investigated making it proportionally more likely that money laundering through those sectors will be identified and restrained.

In this sense, the modelling is based on the premise that broad coverage of multiple money laundering avenues has the effect of generating disruption to criminal enterprise in the following ways:

- increasing the areas and sectors investigated widens the net and increases the potential avenues for discovery of money-laundering activities and methods;
- the increased intelligence generated through increased coverage and reporting allows Police to pursue people and institutions that might otherwise escape detection, and generate prosecutions – both in terms of number or prosecutions and their success – where evidence might previously have been lacking,
- the increased intelligence also allows the Police and other government agencies, including the Serious Fraud Office and the Inland Revenue, to adjust their analytical and investigatory prioritisation to target the highest risk areas; and
- increasing supervision and investigations allows New Zealand to participate more effectively as an international partner by

identifying, reporting, and cooperating with key partners in transnational money laundering investigations.

It is also acknowledged that the ultimate success of this new regime is dependent on adequate funding for the Police in order to ensure an increase in investigations and prosecutions based on the additional intelligence captured.

Key Modelled Sectors / Sector Proportions

The key sectors that are identified for modelling are:

Sector	Comprised of ANZSIC Sectors
Real Estate	Residential property operation Non-residential property operation Real estate services
Legal and Accounting Services	Legal and Accounting Services
Motor Vehicles	Motor vehicle and motor vehicle parts wholesaling Motor vehicle and motor vehicle parts retailing
Jewellery and High Value Dealers	Watch and Jewellery Retailing (scaled by employee proportion)

The model does not include the *entire* high-value goods sector, but it can be expanded to include other high-value retail sectors as required by policy and decision-makers.

Excluded Sectors

This model notably does not include the gambling sector, as only the NZRB and Lotteries are expected to be regulated which cannot reliably disaggregated from the data, and where the expectation is that the effect of increased regulation in deterring ML activity would be minor.

Sector Proportions / Scenarios

The modelled sectors each have a known number of business units. Based on feedback from the Police, DIA, FIU and others, two main scenarios have been developed.

The preferred option and modelled scenario assumes full regulation of the real-estate sector, virtually lawyers and accountants, but fewer high-value dealers and motor vehicle dealers.

Full Supervision, Partial Sectors	Total	Supervised
Lawyers	1,919	1,572
Accountants	2,433	2,223
Real Estate Agents	1,019	1,006
Motor Vehicle & MV Parts	3,256	2,519
Jewellers	640	229

Use of a Pareto Distribution for Supervision and Capture

The model assumes an 80/20 Pareto Distribution (power law distribution) between level of effort and restraint / seizure. This is reasonably consistent with findings that STRs follow a Pareto distribution with over 97% of value in <1% of STRs, and that drug crime seizure follows a 90/10 rule (90% of value from 10% of seizures). This calibration is based on the assumption that supervisors / investigators will be able to 'learn' their sectors and identify the areas toward which effort is best expended.

This assumption is supported by the US IRS and NZ IRD audit experience, where there was a significant decreasing marginal return on revenues as audits and investigations were expanded.

Conversion of Effort / GDP Proportions into Total Value

The increased GDP subject to regulation is then multiplied by a similar proportion to the Phase 1 sectors / GDP restrained. We utilise the maximum historical restraint proportion, on the grounds that restraints in the Phase II sectors are likely to be larger per level of

effort given that these sectors have fewer transactions of greater value, and due to the compounding effect of intelligence, where increasing coverage of a network has a disproportionate effect on overall network supervision. A maximal value will better represent the true economic value of the intervention, as long-term decreases can be attributed to deterrence effects, which result from the intervention. This assumption is also deemed sensible on the grounds that there are only a few years of data in which the current Phase 1 regime has been in place, and there is limited variation between those years.

Based on this data, it is calculated that approximately 0.33% of GDP in the regulated sectors is restrained in any given year. This value is ramped up over time based on historical restraints and NZ and Canadian proportions of the introduction of legislation and the magnitude of restraints.

We have performed **sensitivity testing** on this value, and if an average rather than a maximum value is utilised, it has the effect of reducing the benefits by approximately 15%. We do not prefer this scenario for the reasons stated above, but it is presented.

It is noted that it would be *preferable* to utilise total transaction / turnover value as a proportion of restrained assets in order to calculate the restraints for the new sectors, but this is not available for many of the regulated sectors, so GDP is used as a proxy. GDP measures value added, which does not have a direct and consistent relationship with turnover across all sectors, and measure the amount 'spent' from money laundering in each sector, rather than the amount 'transacted' through the sector.

For that reason, the benefits model behaves well on an aggregate basis (where these proportional differences are less critical) but generates less reliable results on a sector-by-sector basis.

It is also anticipated (although not calculated) that restrained revenue will fall over time as the deterrence effect of AML Phase II grows. This is not accounted for in the model as it is an economic model and ML avoided is still an economic benefit accruing from ongoing supervision and regulation.

The individual sector level results represent the amount of ML directly created by the sector, therefore, while we recognise that lawyers and accountants are integral to facilitating illegal transactions in real-estate, the ML component is captured in the GDP for real-estate, and only the lawyers and accountants contributions to the transaction are captured in the lawyers values. This is similar to the approach taken in Walker.

Calculation of Forfeitures

Forfeitures are further calculated based on a proportion of historical forfeitures relative to restraints. It can take nearly 2-years to convert restraints to forfeitures, and this delay has been input into the model. Furthermore, the amount returned to the Crown has been about 65% including the funds used to pay for the Official Assignee Expenses (OAE). This total number is utilised as this will be new revenue that has not as yet been allocated to a purpose, but it can be assumed that some proportion will be used to pay for OAEs.

We utilise 31% as the conversion rate of restraints to forfeitures, and this number is based on historical data from NZ, as well as calibration against international experience with Phase II sectors. This value is subject to wide variability, and is noted as 'low confidence' in the CBAx.

We have conducted **sensitivity testing** with this value, using an average conversion rate of restraints to forfeitures rather than a maximum conversion rate, and the results are presented in the summary table.

Costs Modelling

Costs modelling can be broken into two parts:

- business compliance costs
- direct departmental costs.

By far, the largest costs are the costs borne by businesses (and ultimately shared by consumers) in acting as the 'front line' for ML enforcement. The departmental costs, while significant, represent the costs of supervision and enforcement of the ML regime, and largely relate to personnel costs.

The costs model currently **excludes** the IT capital cost and the operating costs associated with the preparation of a business case for this capital expenditure. If such costs were included in the modelling then there may be a further impact that decreases the overall BCR and ROI produced by the analysis. This is due to the upfront nature of capital expenditure; it is usually incurred early in the analysis period and therefore subject to lower discounting effects than the subsequent flow of benefits, which begin to accrue after these initial investments in resource / capacity building have been completed.

A note following the completion of CBAx modelling: rough order estimates for DIA's business case costs, capital expenditure on IT system changes and accompanying operating expenditures were received after the economic cost-benefit analysis modelling was completed and the Cabinet paper and RIS submitted. The magnitude of these costs involve:

- Business case expenditure of $0.77 million in 2016/17
- Capital expenditure on system development of $2.1 million in 2017/18
- Ongoing operating expenditure associated with the new system of $0.68 million (including depreciation) p.a. from 2017/18 through to the out years of the analysis period

In relative terms, the rough order costs for capital expenditure and associated operating expenses are small compared to the other costs that have been covered in the analysis, including departmental operating costs and the business compliance costs, and also when compared to the magnitude of included and excluded benefits. Therefore the overall impact of the proposed capital expenditure on the BCR / ROI could be quite small, given the size of these other factors.

Business Compliance (Societal) Costs

Business compliance costs were estimated by a survey of industry participants, interviews with Phase I supervisors, and interviews with the potential Phase II sectors. The survey was designed before policy decisions were made, and the assumed level of supervision was therefore based on FATF activity descriptions and sectors including lawyers, Accountants, Conveyances, Real Estate, Motor Vehicle Dealers and Jewellers.

The survey data was used to estimate the costs associated with:

- Customer Due Diligence
- Account and Transaction Monitoring
- Record keeping
- AML Risk & Compliance Monitoring Programme
- Suspicious Transaction Reporting

These compliance costs were then calculated using FTE based salary data from recruitment agents; MBIE labour market report; and careers.govt.nz.

It should be further noted that business compliance costs generate equity issues that are not captured in the BCR / ROI calculations, even if some of these equity issues may be at the margin (i.e. small relative to the overall transaction). While the compliance costs modelled in this analysis provide an overall aggregative effect of the estimated costs of private sector compliance with the legislation, there are also equity considerations in terms of where costs fall and who bears them compared to who receives the benefits. The benefits, which include the deterrence and disruption of crime, reduced social harm and other strategic economic benefits, broadly accrue across society in general; in other words everyone benefits.

The costs tend to be focussed on the businesses inhabiting the specific sectors that are now covered by the Act and subject to supervision and therefore are borne by a much narrower range of organisations. These compliance costs, as defined above, are a burden on the operation of businesses and are in addition to existing compliance obligations (tax, health and safety, other legal obligations such as fair trading laws, and professional obligations). Business size is also an important factor in this regard as it is more than likely that smaller businesses shoulder a greater burden in terms of not being able to devote dedicated resources to dealing with compliance expectations. The Deloitte survey results indicate that the majority of respondents were small businesses employing fewer than 10 FTEs, comprising between 50% and 85% of sector respondents to the survey. Further, Deloitte modelling indicates that the compliance cost burden for medium and small entities relative to large entities can be of the order of 50% to 70% greater respectively on a per transaction basis.

Government Costs

DIA

Calculations were performed for each industry sector that required supervision, and for each sector 3 calculations were performed:

1. Application of risk scoring to establish a sector risk rating. This risk rating was to determine number of supervision days for Minimum, Intermediate and Maximum levels of effort. A range of supervision days was calculated based on proxies provided by the current AML/CFT supervisors. The number of days required for onsite visits and desk-based reviews was then extrapolated to include all the other supervisory activities such as guidance and enforcement.

2. An extrapolation of number of FTEs required from current supervision levels with estimated efficiencies of 5%, 10% and

15% due to greater economies of scope.

3. Application of a distribution where 75% of supervision activities are spent on the highest 30% of risk to establish the estimated number of non-compliant entities requiring active supervision. The same level of risk was applied to desk based and on site review levels to determine number of supervision days for Minimum, Intermediate and Maximum levels of effort. The number of FTEs for each calculation for each sector was aggregated together to determine an average number of FTEs needed.

Using the current ratio of Supervision to Operational Support staff of 0.19 FTE, the total number of FTEs required for all supervision activities was then derived. DIA provided an estimated number of FTEs required for management and oversight of team structures resulting from additional Phase II activities.

DIA provided a forecast of costings based on the number of FTEs required for 100% sector coverage. These costs were scaled to reflect the estimated reporting entities coming out of the business compliance cost survey, and the costs were then allocated on the basis of number of reporting entities in each sector.

The model uses the assumption that the sectors will be phased in over 2 years from July 2016 and that the costs will be allocated as the supervisor ramps up activities in response to phased implementation – i.e. through recruitment of additional staff required to meet the additional reporting entities.

FIU

The costs for FIU assume that registration rates for Phase II entities will occur in same rate as Phase I with 58% of reporting entities registering in total. The costs also assume that STRs and SAR analysis requirements will stay same for phase II (based on historic FIU rates – 3700 STR validated by 1 FTE p.a. and 650 STRs analysed by 1 FTE p.a.)

The number of Phase II reporting entities were scaled for Year 1 and 2 for registration rates to determine resource requirements for registration and training. Validation and analysis time was calculated on estimated number of STR and SARs anticipated for phase II entities.

Estimated numbers of compliance and intelligence reports calculated for Phase II volumes and applied to the historical FTE / STR ratios and added to additional supervision costs.

2 additional FTEs were added for management and oversight due to structural changes to the team resulting from the additional Phase II activities.

Police

FTE numbers were estimated based on number of additional teams needed to investigate new ML/TF cases arising from Phase II activities. Costs were determined by FIU Staff costs and estimated overhead cost per FTE.

The number of new cases per year was calculated by determining the number of intelligence products likely to arise from additional STR/SARs for Phase II activities.

For each new case, the number of teams required was determined and the number of FTEs needed. STRs and SAR analysis requirements will stay same for phase II (based on historic FIU rates – 3700 STR validated by 1 FTE p.a. and 650 STRs analysed by 1 FTE p.a.)

A complex case will take 18 months between 6-8 FTE and a minimum of 1 Detective Senior Sergeant.

Model Validation

The model appears to provide credible results. The value of restraints and seizures in Phase 2 when added to Phase 1 combine to equate to approximately 0.06% of GDP. This is slightly lower than in the US value of seizures and restraints (with a smaller shadow economy: 5.9%) of 0.08% of GDP, but significantly higher than the Canadian example, and similar to the Australian experience at around 0.04% GDP with a slightly larger shadow economy (10.3%).

Country	Size of Shadow Economy % GDP	Restraints (% GDP)
United States of America	5.9%	0.08%
New Zealand	8.0%	0.06%
Australia	10.3%	0.04%

This estimate is conservative in that does not take into account indirect deterrence effects, and does not take into account regulation of the entire high-value goods sector or gambling sector.

Sensitivity testing by including the entire high-value goods sector would bring the total value of restrained assets to approximately 0.07% of GDP.

Impact Summary Table

Impacts - Identify and list $m present value, for monetised impacts	**Option/scenario (10Y NPV)**		**Assumptions and evidence (quantify if possible, and use ranges where appropriate)**	**Certainty**
	Option 1 Partial Sector Reporting Entities, Full Oblig.	**Option 1 Sensitivity Testing (Avg. Forfeitures, Low Restraint)**		
Decreased ML Leading to a Decrease in Predicate Crime				
Restrained Assets * Multiplier = Crime Prevented by Expansion of AML Legislation	1689	1433	See above on benefits model.	Medium
Cost of the Initiative				
Fiscal operating and capital costs of the initiative	**(109)**	**(109)**	Based on historical data from supervising entities, and the scale of the regulated sectors. **Further detail to come.**	Medium
Government Benefits/(Costs)				
Forfeiture of Revenue	97	57	The amount of forfeited revenue is applied proportionally to sector size and size of the regulated sector relative the current successes in Phase 1 and other AML efforts. The confidence of this estimate for total forfeitures is **low**, given the lack of evidence about conversion of specific restraints into forfeitures. Additionally, the Crown does not generally retain the entire value of forfeitures. Also note that this is a portion of the Key Impact above, so it does not form a separate part of the NPV calculation.	Low
Total Quantified Government Impact	**(12)**	**(16)**		Low
Wider Societal Benefits/(Costs)				
Sector Compliance Costs	(1605)	(1605)		Medium
Upper Bound to Crime Deterred (NOT USED IN NPV CALCULATION) (3x restrained assets * 3.3)	5067	4299	**Not included in totals.** Studies on tax compliance suggest multipliers of indirect effect on compliance of 6-11x the direct effect, but much of this is attributable to social shaming / psychological effects. Arbitrarily, we take half the lower bound as reasonable.	Low
Drug Harm Prevented	c. $800	c $800M	**Not included in totals.** See text.	Low
International Reputation / Trading Risk	Low Benefit	Low Benefit	• In 2012, NZ was stuck off the EU white list, but mostly due to the ease of establishing shell companies. • NZ's anti-corruption rating has slipped 3 places in the last year, but it still ranks 4th, well ahead of its major trading partners.	Medium
Net Present Value of Total Quantified Societal Impacts	**84**	**(172)**	**(Excludes fiscal cost of initiative)**	Medium

Section C Conclusions

Conclusions

With very conservative benefits calculations, the regulation of the highest risk portion of the high-risk sectors (Scenario 1) generates approximately a 1.0 BCR (0.99 at 7% DCR, 1.02 at 3% DCR).

The benefits to this intervention are almost certainly larger than the model estimates, as some deterrence effect from the regulation is likely, and the current estimates do not quantify savings from social harm avoided (e.g. from drug use, trafficking, identify theft and other fraud), nor does the model attempt at this stage to calculate the savings from reduced use of government resources in other sectors (e.g. corrections, health services).

An alternative intervention – supervision of all businesses within high-risk sectors – is too expensive relative to the benefit. An argument can be formed that higher regulation would prevent substitution effects – that is ML being transferred away from the supervised to unsupervised sectors, so the deterrence benefit of the expansion may be understated. However, short of an economy-wide supervision of all transactions (cash and otherwise) the opportunity remains for ML to 'shift' with varying degrees of difficulty between any tradable sector.

A prudent approach to supervision is called for, which targets the largest amount of crime deterred / interrupted relative to the compliance and enforcement costs generated. This analysis appears to suggest that this occurs in Option 1.

Summary of Monetised Results: Option 1 (Main Scenario)		
Use ranges for values where appropriate (Preferred Option 1 – Partial Regulation)	Discount Rate	
	7% real (default)	3% real (sensitivity)
Net Present Value (NPV)	(25)	41
Benefit Cost Ratio (BCR)	0.98	1.03
Return on Investment (ROI) – Societal Total	0.8 (Per CBAx Model)	1.4 (Per CBAx Model)
Return on Investment (ROI) – Government	0.9	0.9

Summary of Monetised Results: Option 1 (Scenario Testing 1)		
Use ranges for values where appropriate (Preferred Option 1 – Partial Regulation)	Discount Rate	
	7% real (default)	3% real (sensitivity)
Net Present Value (NPV)	(281)	(262)
Benefit Cost Ratio (BCR)	0.84	0.87
Return on Investment (ROI) – Societal Total	-1.6 (Per CBAx Model)	-1.0 (Per CBAx Model)
Return on Investment (ROI) – Government	0.5	0.5

Supporting Evidence

Multiplier for Crime Prevented by ML Seizure / Proceeds of Crime Seizure

McFadden, M (2015). “Development of Proceeds of Crime Disruption Index”.

McFadden, M (2016). “The New Zealand Drug Harm Index”. *Ministry of Health.*

Proportion of Money Laundering Captured in Different Jurisdictions

FATF reports, various (CA, AU).

US Reporting reveals that its AML legislation has captured or restrained $12Bn which is equivalent to 0.08% of its GDP.

Walker, J. (2004). “The Extent of Money Laundering in and through Australia in 2004”.

Shadow Economy and ML as a Percentage of GDP

Schnieder, F (2015). “Size and Development of the Shadow Economy of 31 European and 5 other OECD Countries from 2003 to 2015: Different Developments”.

Walker, J. (2004). “The Extent of Money Laundering in and through Australia in 2004”.

Pareto Distribution of Proceeds of Crime / STRs Investigated

Boreham, P et.al (2014). “Targeting the Profits of Illicit Drug Trafficking through Proceeds of Crime Action: NDLERF Monograph Series No 52”

Walker, J. (2004). “The Extent of Money Laundering in and through Australia in 2004”. (p. 77).

Deterrence Effects of Audits

Ratto, Thomas, Ulph (2004). “Tax Compliance as a Social Norm and the Deterrent Effect of Investigations”.

Bloomquist, K. “Multi-Agent Based Simulation of the Deterrent Effects of Taxpayer Audits”