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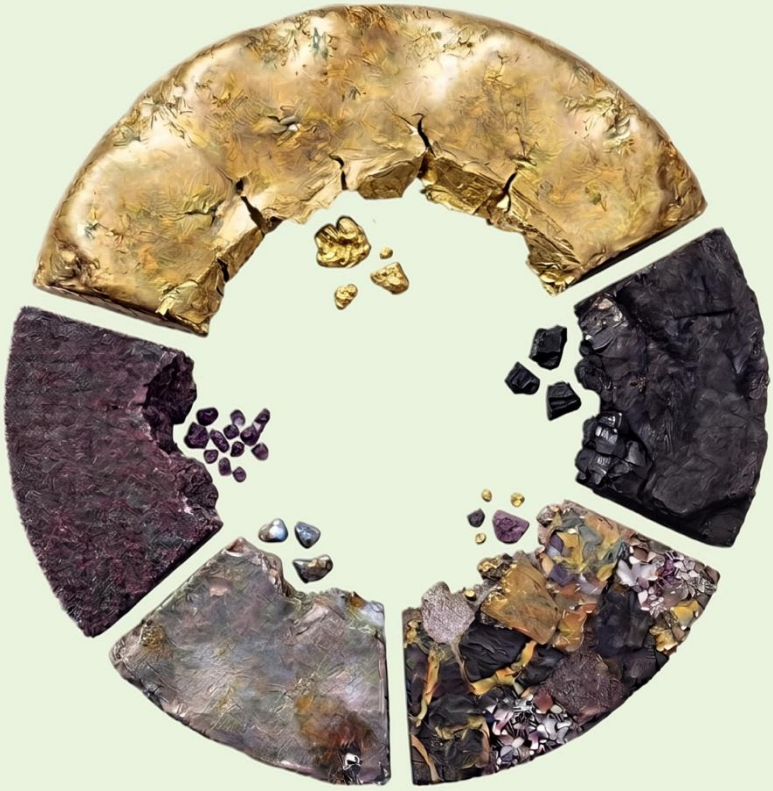


New Zealand Minerals Royalty Regime Review

For the Ministry of Business, Innovation and Employment (MBIE)

June 2026

Deloitte
Access Economics

Executive summary

The Ministry of Business, Innovation and Employment commissioned Deloitte Access Economics to review New Zealand's minerals royalty regime as it applies to Crown-owned minerals regulated under the Crown Minerals Act 1991, excluding petroleum.

The report provides evidence to inform future policy advice on royalty settings, focusing on three core areas: the effective government take from minerals development; whether current and legacy regimes provide a "fair financial return" to the Crown; and the implications of alternative royalty regime settings. "Fair financial return" was assessed against both the interpretation set out in the Minerals Programme for Minerals (Excluding Petroleum) 2025 and the guidance outlined in the 2012 Cabinet paper on mineral royalties.

The review is limited to Tier 1 and Tier 2 commercial mining activity and does not assess Tier 3 recreational mining, privately owned minerals, broader environmental, social, cultural or health and safety impacts, or provide fiscal forecasts for alternative regimes. The review was limited to royalties and should not be interpreted as a full estimate of all government-imposed costs on mining activities.

Focus area	Finding
Effective government take	The analysis finds that New Zealand's current royalty framework sits within a broader cumulative government take that includes royalties, corporate income tax, sector-specific levies, permit and application fees, and other regulatory charges. For the purposes of the analysis for the review, effective government take is calculated using only royalties, the Energy Resource Levy, and corporate income tax, reflecting stronger data reliability for these components and the higher uncertainty for other fees and charges. Effective government take is estimated to vary materially by mineral type, with metallic minerals and aggregates generally lower than coal, largely because coal is also subject to the Energy Resource Levy. Levies, fees and fixed charges have a greater relative impact on smaller operators and aggregate producers, reflecting the larger number of permits and smaller operating scale of such firms. Estimates of effective government take suggest a total imposition of 35% to 51% of profits across all royalty regimes combined. This level is broadly in line with comparable international jurisdictions such as Québec, British Columbia, and Chile, but is lower than that observed in Australian states. It should be noted that these estimates are not representative of the 2013 regime. In 2025, 97% of the Crown's royalty take came from permits on legacy regimes, reflecting long development timelines. As a result, legacy regimes will continue to materially influence effective government take into the future absent any change to royalty regime settings.
"Fair financial return"	The current regime is assessed as broadly fair and transparent. Its hybrid structure provides the Crown with an early-life minimum return through ad valorem royalties and some upside sharing through accounting profit royalties, while unit-based royalties provide a simple mechanism for aggregates and quarry materials. However, New Zealand's royalty rates sit toward the lower end of the international range, and

the regime is conservative in capturing value for the Crown, particularly where grandfathered arrangements remain in place or where profit-linked mechanisms are limited.

Legacy regimes provide important investment certainty but reduce consistency across the royalty system. The 1996 regime introduced standardised rates and some upside sharing, but at relatively low levels, while the 2008 regime provided early Crown returns through ad valorem and unit-based royalties but removed accounting profit royalties and introduced some discretion in rate-setting. As a result, grandfathered regimes generally provide weaker upside sharing, lower government take, and in some cases weaker transparency than the current regime.

Industry evidence indicates that royalty settings are not, in isolation, a primary barrier to investment. Operators generally view royalties as part of the cost of doing business, with investment decisions more strongly influenced by cumulative regulatory and compliance costs, consenting timeframes, capital availability, resource certainty, price volatility and market conditions. These pressures are more acute for smaller and shorter-life operators, while larger operators are better able to absorb fixed costs.

Alternative regime settings

Scenario modelling shows that alternative royalty settings involve clear trade-offs. Lower royalty rates would support competitiveness and provide modest positive effects on output and gross domestic product (GDP) but reduce Crown royalty revenue. Higher rates would increase direct royalty revenue and economy-wide tax impacts, but reduce minerals output, GDP and employment, with the largest negative impacts occurring where higher rates are applied to all permits from 2032. Most scenarios, except those with significant increases in royalty rates, suggest relatively modest changes to sector output, royalty take and wider economy impacts.

The table below provides a high-level summary of the scenario modelling. The scenarios are illustrative analytical cases designed to test policy trade-offs. They are not recommendations.

Scenario		Crown revenue	Sector output	GDP / economic activity	Key trade-off
AVR 1% to 2% / APR 10% - Transition of legacy permits to 2013 regime from 2032		↑ Moderate increase	↓ Small decrease	↓ Small decrease	Improves consistency and revenue, with modest economic costs
AVR 0.5% / APR 8%	Only new permits	↓ Lower	↑ Slight increase	↑ Slight increase	Supports investment and competitiveness, reduces Crown returns
	All permits from 2032	↓ ↓ Lower	↑ Slight increase	↑ Slight increase	Strengthens investment incentives further, reduces royalty returns more materially

AVR 4.4% / APR 0%	Only new permits	↑ Moderate increase	↓ Small to moderate decrease	↓ Small to moderate decrease	Increases revenue certainty, but reduces upside sharing and output
	All permits from 2032	↑ ↑ Large increase	↓ Moderate decrease	↓ Moderate decrease	Increases revenue certainty and returns, reduces upside sharing and has large economic costs
AVR 10% / APR 15%	Only new permits	↑ ↑ Large increase	↓ ↓ Large decrease	↓ ↓ Large decrease	Significantly increases Crown revenue, but materially reduces activity and investment
	All permits from 2032	↑ ↑ ↑ Very large increase	↓ ↓ ↓ Very large decrease	↓ ↓ ↓ Very large decrease	Maximises Crown revenue, but may impose a large negative impact on sector output and broader economic activity

For aggregates, this report does not model alternative royalty rates but finds that unit-based royalties remain consistent with common international practice. The main area for refinement is indexation, where using a more sector-specific input price index could better align royalty rates with real cost movements in the aggregates sector while maintaining the simplicity of the current approach.

Overall findings and policy considerations

The report finds that New Zealand's minerals royalty regime is broadly fair, transparent and internationally recognisable in structure, but conservative in the extent to which it captures value for the Crown. No alternative regime supports all policy criteria: higher-rate options improve Crown returns but increase economic distortion and sovereign risk, while lower-rate options support competitiveness and neutrality but weaken fiscal capture.

Future policy choices therefore depend on the relative weight placed on Crown revenue, investment certainty, administrative simplicity, international competitiveness and the Crown's objective of securing a fair financial return from minerals.

Contents

List of tables 9
List of figures 9
Glossary 11
Section 1: Research context 14
This report 15
Purpose and scope of this report 15
Research approach 15
Structure of the report 17
Research context 18
Sector context 18
Policy and regulatory context 19
Key legislative and policy instruments 19
Operational instruments 20
Royalty types 20
Ad valorem royalty 21
Accounting profit royalty 21
Unit-based royalties 21
Variations on ad valorem, accounting profit and unit-based royalties 22
Section 2: Effective government take 23
Analysis of effective government take 24
Overview of section 24
What is “effective government take”? 24
Current royalty settings 24
Tiers of minerals extraction 25
Current royalties in place for coal and metallic minerals 26
Current royalties in place for aggregates 26
Other Crown impositions on the mineral sector 27
Application and permit fees 28
Levies 28
Other fees, taxes and levies 28
Legacy and grandfathered regimes 28
Introduction of standardised royalties 29
2008 changes to royalty regime 29

Effective government take 30
Metallic minerals 31
Aggregates 31
Coal 32
Tier 1 and Tier 2 breakdown 33
Sector participant insights on the current royalty regime and current conditions 36
Section 3: Fairness and transparency 39
Assessment of fairness and transparency of New Zealand's royalty regime 40
Overview of section 40
Interpretation of a "fair financial return" 40
Minerals Programme for Minerals (Excluding Petroleum) 2025 guidance 40
Previous assessments of a "fair financial return" to the Crown 41
Comparison with international jurisdictions 42
The current regime (2013) compared to international jurisdictions 44
Effective take 44
Regime design and transparency 45
Rates 45
Grandfathered regimes (1996, 2008) compared to international jurisdictions 45
1996 Regime 46
2008 Regime 46
Assessment of "fair financial return" 46
Criteria used to assess "fair financial return" 46
Assessment of current regime 47
Assessment of grandfathered regimes (1996 and 2008) 49
Summary of fairness assessment across regimes 51
Case study: Adaptive Royalty Agreements 53
Overall analytical statements and conclusions 54
Section 4: Alternative royalty regimes 55
Alternative royalty regimes 56
Overview of section 56
Economic impact of alternative royalty regimes 56
Sector coverage 56
Assessment for aggregates 56
Transition of permits to alternative royalty settings 58
Scenarios 60

Baseline 60
Alternative regime scenarios 60
Scenario results 62
Metallic minerals and coal 63
AVR 1% to 2% or APR 10% - Transition of legacy permits to 2013 regime from 2032 63
Industry impact 63
Economic impact 64
AVR 0.5% or APR 8% - New permits only / All permits from 2032 65
Industry impact 65
Economic impact 66
AVR 4.4% / APR 0% - New permits only / All permits from 2032 67
Industry impact 67
Economic impact 68
AVR 10% / APR 15% - New permits only / All permits from 2032 69
Industry impact 69
Economic impact 70
Summary of scenario modelling results 71
What the scenarios represent 71
Section 5: Policy considerations 74
Policy considerations 75
Overview of section 75
Criteria used for policy considerations 75
Assessment of scenario results against policy considerations 76
Potential next steps 80
Appendices 81
Appendix 1: Data sources and limitations 82
Data sources 82
Overall research limitations 82
Appendix 2: Overview of modelling approach and assumptions 84
Computable general equilibrium modelling of alternative royalty regimes 84
Introducing DAE-RGEM 84
Modelling the economic impact of alternative royalty regimes 84
Model configuration 85
Components of DAE-RGEM and key linkages 86
Households 86

Producers 87
Investors 87
International 87
Assumptions in calculating effective government take 88
Appendix 3: Details of other fees, levies and taxes 90
Unit per tonne or cubic metre royalties, 2008 90
Exploration, prospecting and mining permit fees 91
Annual exploration, prospecting and mining permit fees 91
Exploration, prospecting and mining permit fees – 1991 and 2006 regimes 92
Annual exploration, prospecting and mining permit fees – 1991 92
Annual exploration, prospecting and mining permit fees – 2006 93
DOC Fees 93
Fast-track approval fees 96
Ministry for the Environment Waste Disposal Levy 96
Appendix 4: Summary questionnaire results 97
Key statistics at a glance 97
Market conditions, cost pressures, and sentiment 97
Investment behaviour, resource certainty, and capital availability 98
Royalties, regulatory processes, and cumulative cost pressures 98
Overall observations 99
Appendix 5: High level interview themes 100
Appendix 6: International literature review table 103
Appendix 7: Detailed scenario policy assessment 111
Bibliography 116

List of tables

Table 1 – Research approach components 16
Table 2 – Structure of the report 17
Table 3 – Royalties for Tier 1 permits 26
Table 4 – Royalty rates for Schedule 2 Minerals as per the Crown Minerals Regulations 2013 27
Table 5 – Energy Resource Levy rates 28
Table 6 – Royalty rates under the Minerals Programme for Minerals Other than Coal and Petroleum 1996 and the Minerals Programme for Coal 1996 29
Table 7 – Royalty rates under Minerals Programme for Minerals (Excluding Petroleum) 2008 30
Table 8 – Summary of international jurisdiction review 43
Table 9 – Criteria definitions for "fair financial return" assessment 47
Table 10 – Assessment of current regime against fairness criteria 48
Table 11 – Assessment of 1996 and 2008 grandfathered regimes against fairness criteria 50
Table 12 – Summary of fairness assessment across regimes 51
Table 13 – Scenario descriptions and rationale 61
Table 14 – Economic impact results for transitioning legacy permits scenario 64
Table 15 – Economic impact results for 0.5% AVR or 8% APR scenario 67
Table 16 – Economic impact results for 4.4% AVR scenario 69
Table 17 – Economic impact results for 10% AVR and 15% APR scenario 70
Table 18 – Summary of royalty take impacts 72
Table 19 – Summary of overall scenario modelling results 73
Table 20 – Policy assessment criteria 75
Table 21 – Summary of scenario policy assessment 78
Table 22 – Industry aggregation of DAE-RGEM 85
Table 23 – Royalty rates for minerals subject to unit royalties 2008 vs 2013 regimes 90
Table 24 – Application fees (effective from 1 January 2017) 91
Table 25 – Annual permit fees 91
Table 26 – Application fees 92
Table 27 – Annual fees under Crown Minerals (Fees) Regulations 1991 92
Table 28 – Annual fees under Crown Minerals (Minerals Fees) Regulations 2006 93
Table 29 – DOC commercial easements for mining operations on conservation land 94
Table 30 – Gravel access fees 95
Table 31 – Gravel extraction fees 95
Table 32 – Gravel storage/stockpiling fees 95
Table 33 – Fast-track approval fees 96
Table 34 – Waste Disposal Levy rates 96
Table 35 – International jurisdiction review 104
Table 36 – Detailed scenario policy assessment 111

List of figures

Figure 1 – Effective government take for metallic minerals 31
Figure 2 – Effective government take for aggregates 32
Figure 3 – Effective government take for coal 33
Figure 4 – Effective government take for metallic minerals, Tier 1 vs Tier 2 34
Figure 5 – Effective government take for coal, Tier 1 vs Tier 2 35
Figure 6 – Input Producer Price Index (Base = December 2010) 57

Figure 7 – Projected proportion of permits subject to legacy and alternative regimes – Alluvial metallic minerals 59
Figure 8 – Projected proportion of permits subject to legacy and alternative regimes – Coal 59
Figure 9 – Projected proportion of permits subject to legacy and alternative regimes – Hard rock metallic minerals .. 59
Figure 10 – Annual coal production/output deviations under a 2032 transition (2026 NZD, millions) 63
Figure 11 – Annual metallic minerals production/output deviations under a 2032 transition (2026 NZD, millions) 64
Figure 12 – Annual coal production/output deviations under a 0.5% AVR or 8% APR regime (2026 NZD, millions)..... 65
Figure 13 – Annual metallic minerals production/output deviations under a 0.5% AVR or 8% APR regime (2026 NZD, millions)..... 66
Figure 14 – Annual coal production/output deviations under a 4.4% AVR regime (2026 NZD, millions) 68
Figure 15 – Annual metallic minerals production/output deviations under a 4.4% AVR regime (2026 NZD, millions) ... 68
Figure 16 – Annual coal production/output deviations under a 10% AVR and 15% APR regime (2026 NZD, millions) .. 70
Figure 17 – Annual metallic minerals production/output deviations under a 10% AVR and 15% APR regime (2026 NZD, millions)..... 70
Figure 18 – Stylised diagram of DAE-RGEM..... 84

Glossary

Term	Definition
Accounting profit	Profit after allowable deductions used to calculate APR
APAC	Asia-Pacific region
Application fee	Fee to apply for permits or changes
APR	Accounting Profit Royalty – percentage of accounting profit from mining operations
ARA	Adaptive Royalty Arrangement – a dynamic royalty system that adjusts to market conditions
AVR	Ad Valorem Royalty – percentage of the value of mineral sales (typically net sales revenue)
Brownfield expansion	Expansion of existing mining operations
Buffering mechanism	Feature reducing royalty burden during downturns
CGE model	Computable General Equilibrium model used for economy-wide modelling
Commodity price volatility	Fluctuations in mineral prices affecting investment
Corporate income tax	Tax on company profits contributing to government take
CPI	Consumer Price Index
Crown	The Government of New Zealand acting as owner of mineral resources on behalf of the public
Crown Minerals Act 1991	Legislation governing management and allocation of Crown-owned minerals
CRESH	Constant Ratio of Elasticity of Substitution Homothetic
DAE-RGEM	Deloitte Access Economics Regional General Equilibrium Model
De minimis	Minimum threshold below which royalties are not payable
DOC	Department of Conservation
DOC Fees	Charges by the Department of Conservation for access and monitoring
ECAN	Environment Canterbury
Economic rent	Return above the minimum required to attract investment
Effective government take	Total share of mining returns captured by the Crown through royalties, taxes, and fees
ERL	Energy Resource Levy per-tonne levy applied to coal production
Escalator	Mechanism increasing royalties based on price or profit conditions
ETS	Emissions Trading Scheme

Exclusive Economic Zone	Offshore area where NZ has mineral rights
Exploration permit	Authorisation to explore for mineral resources
Extended Continental Shelf	Extended offshore area with mineral ownership rights
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
Grandfathered regimes	Legacy royalty arrangements applied to older permits
Greenfield development	Development of new mining sites
GST	Goods and Services Tax
Hybrid royalty regime	Combination of royalty types, typically applying the higher of AVR or APR
IMF	International Monetary Fund
Imputed profit	Estimated profit based on Stats NZ data on financials for the minerals sector
Legacy regime	Earlier royalty framework preceding current settings
LINZ	Land Information New Zealand
MBIE	Ministry of Business, Innovation and Employment
MfE	Ministry for the Environment
Mining permit	Authorisation to extract minerals
Net sales revenue	Revenue after deductions used to assess royalty obligations
NPV	Net Present Value
NZPAM	New Zealand Petroleum & Minerals
PAYE	Pay As You Earn (income tax system)
Permit	Government approval allowing prospecting, exploration, or mining
Permit fee	Fee for granting or holding a permit
Permit-year	Unit representing one permit active for one year
PPI	Producer Price Index
Prospecting permit	Early-stage search for mineral deposits
Profit-based royalty	Royalty calculated as a percentage of profit (e.g., APR)
Rent capture	The extent to which the Crown captures economic rent from resource extraction
Resource certainty	Confidence in resource size, quality, and extractability
Resource rent	Surplus value from resource extraction after costs
Schedule 2 minerals	Minerals subject to unit-based royalties under 2013 regulations
Sovereign risk	Risk of policy changes negatively affecting investment value

Tier 1 permit	Large-scale, complex, higher-risk mining operations
Tier 2 permit	Smaller-scale, lower-risk mining operations
Tier 3 permit	Small-scale or recreational mining activities (out of scope)
Transition (of permits)	Process of moving existing permits from one royalty regime to another over time
Unit-based royalty	Fixed charge per unit of production (e.g., per tonne or cubic metre)
Value-based royalty	Royalty calculated as a percentage of the value of mineral production (e.g., AVR)
Waste Disposal Levy	Levy on commercial waste disposal relevant to mining

Section 1: Research context

This report

Purpose and scope of this report

The Ministry of Business, Innovation and Employment (MBIE) commissioned Deloitte Access Economics to conduct a review of New Zealand's minerals royalty regime as it applies to Crown-owned minerals regulated under the Crown Minerals Act 1991, excluding petroleum.

The purpose of this report is to provide MBIE with analysis and evidence to inform future policy advice on minerals royalty settings. The review focuses on three core areas:

- An evaluation of the effective government take – The review considers the combined royalties, levies, taxes, and regulatory fees applied to New Zealand's minerals sector.
- An assessment of whether current and legacy regimes provide a "fair financial return" to the Crown and are transparent – The review considers whether New Zealand's current royalty regime settings and legacy or grandfathered arrangements continue to provide a "fair financial return" to the Crown and are transparent, taking into account the interpretation of fairness set out in the Minerals Programme for Minerals (Excluding Petroleum) 2025. This includes a comparison with selected international jurisdictions to provide context for New Zealand's overall level of government take.
- Advice on alternative royalty regimes – The review explores alternative royalty regime settings. Scenario modelling is used to examine the implications of different approaches including the likely economic impact, trade-offs, and risks for each scenario.

The following are out of scope of this review:

- The analysis focuses on commercial mining activity, covering Tier 1 and Tier 2 mining operations as defined by New Zealand Petroleum and Minerals (NZPAM).[1] Tier 3 mining, which relates to recreational or hobbyist mineral gathering at a non-commercial scale,[2] is explicitly excluded from the review and associated modelling.
- Royalties considered in this review apply only to Crown-owned minerals. Privately owned minerals on freehold land and activities outside the Crown Minerals Act 1991, fall outside the scope of the royalty regime and are not assessed.
- The review does not assess the environmental, social, cultural or health and safety impacts of mining activity, nor does it evaluate the effectiveness of broader regulatory or consenting frameworks beyond their interaction with royalty outcomes.
- The review does not provide fiscal forecasts for alternative royalty regimes. While the scenario modelling provides an indication of changes in government tax take, these are directional and explicit fiscal modelling of alternative royalty regimes is recommended.

Research approach

The review was undertaken using a structured, evidence-based approach designed to support the assessment of New Zealand's minerals royalty regime and inform considerations of future policy options.

A common set of research approach components was applied across the review. Table 1 shows an overview of the research approach components:

[1] New Zealand Petroleum & Minerals (2026a, March 26)
[2] New Zealand Petroleum & Minerals (2026b, March 26)

Table 1 – Research approach components

Approach components	Description
Desktop research	Review of legislative and policy materials provided by MBIE, and publicly available information, with coverage across metallic minerals, aggregates, and coal, and spanning both the 2013 and pre-2013 royalty regimes.
Data review	Analysis of administrative data sourced from MBIE, covering the period from 2006 to 2025 and structured on a calendar year basis. The dataset includes royalty payments, permit tiers (Tier 1 and Tier 2), and production data at the permit level, with coverage across metallic minerals, aggregates, and coal, spanning both the 2013 and pre-2013 royalty regimes.
International comparison	Review of selected international jurisdictions using publicly available information on royalty design, government take, and taxation arrangements. This provides comparative context for assessing New Zealand's royalty settings and the extent to which they deliver a "fair financial return" to the Crown, as well as the overall effective government take.
Industry questionnaire	A targeted questionnaire was distributed to 290 mining and exploration permit holders, from 10 April to 29 April 2026. The questionnaire gathered information on current and legacy royalty settings, cost structures, investment considerations, and potential behavioural responses to changes in royalty settings. The response rate was 36% for Tier 1 permit holders and 37% for Tier 2 permit holders. Responses were used to test assumptions and support interpretation of the quantitative analysis.
Targeted industry interviews	Six targeted interviews were conducted with selected Tier 1 and Tier 2 operators and sector representatives. Selection considered representation of both Tier 1 and Tier 2 operators, coverage across key mineral groups (metallic minerals, aggregates, and coal), inclusion of both operators and sector representatives, and diversity in business size, geography, and operating conditions. Interviews explored how royalty settings operate in practice, perceptions of fairness and competitiveness, prevailing market conditions, and likely responses to alternative royalty settings. Interview insights were used alongside questionnaire responses to provide qualitative context, with the targeted sample designed to capture perspectives from key segments of the sector, noting that findings are not statistically generalisable.
Scenario modelling	Scenario modelling was undertaken to explore alternative royalty settings relative to current arrangements, using Deloitte Access Economics' in-house computable general equilibrium (CGE) model. The modelling examined the likely economic impact under each scenario, over the period 2027 to 2060.
Synthesis and interpretation	Findings from desktop research, quantitative analysis, modelling, and engagement were integrated to form an overall assessment of current royalty settings and the implications of alternative approaches.

Structure of the report

The structure of the report is as follows:

Table 2 – Structure of the report

Section	What this section covers
Section 1: Research context	Establishes the foundation for the review; explaining why it has been undertaken, the scope of what is to be examined, and the overall research approach. Situates the analysis within the broader context of New Zealand's minerals sector; describing its economic and strategic role, how the sector has evolved since 2013, current market and investment conditions, New Zealand's competitive position, and the Government's export-led growth ambitions. Outlines the policy and regulatory environment and explains how royalty settings interact with investment behaviour and competitiveness.
Section 2: Effective government take	Examines how much the government currently receives from mineral development. Explains how royalties operate across different mineral types and permit tiers, identifies other government charges and levies that apply to the sector, and considers the role of legacy and grandfathered regimes. Using available data, quantifies the combined impact of royalties and other impositions to estimate the effective government take from the minerals sector.
Section 3: Fairness and transparency	Assesses whether New Zealand's current and legacy royalty settings deliver a "fair financial return" to the Crown. The assessment is informed by statutory and policy principles and considers consistency, transparency, and treatment across different minerals and permit types. Compares New Zealand's approach with selected international jurisdictions and uses a case study to illustrate how alternative royalty arrangements can operate in practice.
Section 4: Alternative royalty regimes	Explores how different royalty settings could perform if changes were made; setting out the design of alternative scenarios and presents modelling results.
Section 5: Policy considerations	The section concludes with a policy framework that assesses risks, trade-offs, and implementation considerations of different royalty regime settings going forward.
Appendices	Provides detailed supporting information that underpins the analysis in the main report. This includes data sources and limitations, the detailed modelling approach, supplementary tables and figures, a summary of questionnaire results, and the bibliography.

Research context

Sector context

New Zealand's minerals sector is a strategically important component of New Zealand's economy.[3] Its contribution extends beyond mineral extraction to underpin a wide range of economic activities that are essential to national development, regional resilience, and long-term productivity.

In particular, the sector underpins essential activity across:

- Construction and infrastructure
- Manufacturing and industrial supply chains
- Agriculture and primary processing
- Emerging clean energy and advanced technologies.[4]

Aggregates and quarry materials are fundamental inputs into housing, transport networks, and public infrastructure, while metallic minerals support manufacturing, construction materials, and a range of industrial processes. Coal continues to play a role in steelmaking and other industrial uses, contributing to both domestic supply chains and export markets. The minerals sector also contributes to skilled employment, workforce development, local supply chains and regional economic diversification.

Existing export commodities (notably gold and coal for steelmaking) have remained central to sector viability, providing a stable foundation for investment and production.[5] While export earnings are important, the sector's role extends well beyond exports. Royalty settings influence domestic supply, regional development, and investment behaviour across the full range of Crown-owned minerals. These characteristics provide important context for considering the design and performance of the minerals royalty regime.

Looking ahead, as set out in the Minerals Strategy to 2040, the sector is expected to play an increasingly important role in supporting New Zealand's economic prosperity. This includes contributing to export growth, enabling new mineral opportunities, and supplying minerals critical to industrial processes, advanced manufacturing, and the clean energy transition.[6] This broader role provides important context for the review of royalty settings, which influence not only Crown revenue but also investment decisions and the sector's capacity to deliver long-term economic and strategic benefits.

The Minerals Strategy to 2040 includes an ambition to double the value of annual mineral exports to $3 billion by 2035, reflecting the Government's view that the minerals sector can play a stronger role in New Zealand's export-led growth pathway.[7] This ambition reflects an expectation that, with appropriate regulatory and investment settings, the sector can deliver higher export earnings, support regional development, and generate stronger long-term returns for New Zealanders from Crown-owned resources.[8]

Royalty settings form part of overall project costs. While not typically a primary driver of investment decisions in isolation, they can influence incentives, project economics, and the pace and scale of sector development at the margin. Within this context, the royalty regime is a central policy lever for ensuring that increased sector activity

[3] New Zealand Petroleum & Minerals (2026, January 12)
[4] Ministry of Business, Innovation and Employment (2024, July 1)
[5] New Zealand Petroleum & Minerals (2024, November 29)
[6] Ministry of Business, Innovation and Employment (n.d.-a)
[7] Ministry of Business, Innovation and Employment (n.d.-a)
[8] Ministry of Business, Innovation and Employment (n.d.-a)

translates into fair and enduring benefits for the Crown and New Zealanders, while supporting broader economic contributions including output and employment.

This review therefore provides a critical input into assessing whether current royalty settings remain aligned with the export-led growth ambition, while continuing to balance international competitiveness, investment certainty, and the Crown's objective of securing a fair financial return from the development of its mineral resources.

Policy and regulatory context

This section sets out the policy and regulatory framework within which New Zealand's minerals royalty regime operates. It provides context for the assessment of current royalty settings by outlining the key legislative, policy, and operational instruments that govern mineral ownership, access, development, and the Crown's financial return. Together, these instruments shape how royalty obligations are designed, interpreted, and applied in practice, and frame the balance between investment certainty, regulatory stewardship, and the Crown's objective of securing a fair financial return from the development of non-renewable mineral resources.

Key legislative and policy instruments

The mineral sector is governed by a set of legislative and policy instruments that determine how Crown-owned minerals are allocated, developed, and subject to royalty and other fiscal settings. Together these instruments establish the framework within which investment occurs and within which the Crown secures a financial return from the development of non-renewable mineral resources.

This framework is anchored in the purpose of the Crown Minerals Act 1991 (the Act), which seeks to ensure that the Crown receives a "fair financial return" from the development of its mineral resources for the benefit of New Zealand. The interpretation of that purpose, and its application in practice, is set out in the Minerals Programme for Minerals (Excluding Petroleum) 2025.

Key legislative and policy instruments relevant to this review include:

- Crown Minerals Act 1991 – provides the overarching legislative framework for the management of Crown-owned minerals and establishes the purpose of ensuring that the Crown receives a fair financial return from minerals development for the benefit of New Zealand.
- Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013 – set out the current royalty methodologies, rates, and payment requirements for minerals other than petroleum, and form the primary subject of this review.
- Minerals Programme for Minerals (Excluding Petroleum) 2025 (the Programme) – issued under Section 13 of the Crown Minerals Act 1991, the Programme provides policy guidance on how the Act's purpose is to be interpreted and applied in practice, including the interpretation of a fair financial return.
- Crown Minerals Amendment Act 2025 – amends the Crown Minerals Act 1991, including updating the Act's purpose and aligning the regime with updated strategic direction for the minerals sector.
- Minerals Strategy to 2040 – sets the Government's long-term strategic direction for the minerals sector, including growth objectives and priorities for regulatory settings that support investment while delivering benefits to New Zealanders.

Relevant legislation and programmes relating to legacy regimes:

- Iron and Steel Industry Act 1959 – provides specific provisions relating to iron sands and steel production in New Zealand.
- Mining Act 1971 – provided the legislative framework for mining activities prior to the Crown Minerals Act 1991 and continues to apply to certain legacy permits.
- Energy Resources Levy Act 1976 – establishes levies applicable to certain energy resources, operating alongside the broader fiscal regime.

- Coal Mines Act 1979 – governs aspects of coal mining operations and safety, relevant to the regulatory context for coal extraction.
- Minerals Programme for Coal 1996 – provides policy guidance for coal permits issued under earlier frameworks.
- Minerals Programme for Minerals 1996 – earlier programme providing policy guidance under the Crown Minerals Act.
- Minerals Programme for Minerals 2008 – updated programme setting out policy interpretations prior to the 2025 Programme.

Since the introduction of the 2013 regulations, the policy, market, and operating context for the minerals sector has evolved significantly.[9] The Government is therefore reviewing minerals royalty settings given the current strategic direction, and to support regulatory stewardship responsibilities and ensure the regime continues to operate effectively in a changing economic and policy environment.

Operational instruments

The legislative and policy framework governing the mineral royalty regime is supported by a range of operational instruments that give practical effect to the minerals royalty obligations. These instruments set out detailed requirements for applying, administering, and complying with the royalty regime, and are updated from time to time to reflect changes in policy settings or administrative practice.

Key operational instruments relevant to this review include:

- Royalty rate notices – Royalty rates are given effect through Royalty Rate Notices issued under the Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013. These notices specify the applicable royalty rates for different minerals and permit types at a point in time and provide the operational mechanism through which rates set in regulations are applied.[10]
- New Zealand Petroleum and Minerals (NZPAM) guidance and administrative material – Guidance issued by NZPAM supports implementation of the royalty regime, including information on royalty calculation methods, valuation approaches, reporting requirements, payment processes, and compliance obligations for permit holders.
- Permit conditions and reporting requirements – Conditions attached to prospecting, exploration, and mining permits, including reporting and information provision requirements, support the administration of the royalty regime and inform monitoring and compliance activities.
- Indexation and adjustment mechanisms – Operational provisions that provide for indexation or periodic adjustment of certain royalty rates or thresholds, where applicable, to maintain real values over time.

These operational instruments sit beneath the core legislative and policy framework and are essential to the day-to-day functioning of the royalty regime. While they are referenced in this review to provide context, the assessment focuses on the underlying design and performance of the royalty framework rather than detailed administration or implementation arrangements.

Royalty types

Mineral royalty regimes are typically designed around either value, profit, or physical output as the tax base.[11] Ad valorem royalty (AVR), accounting profit royalty (APR), and unit-based royalties differ in what they tax. This affects how

[9] New Zealand Petroleum & Minerals (2024, November 29)
[10] Ministry of Business, Innovation and Employment (2025, April 8)
[11] Office of the Minister of Energy and Resources (n.d.)

the regimes share risk between the Crown and investors, how stable Crown revenue is across commodity cycles, and how much they distort mine design and production decisions. New Zealand uses a blend of all three royalty types.

Ad valorem royalty

AVRs are levied on the value of the mineral sold. AVR regimes provide a guaranteed minimum return at the outset of production, because they are paid from first sale, regardless of whether a mine is profitable. AVRs are also simpler to administer, and audit compared with profit-based royalties.[12]

AVRs are payable even when margins are thin. AVRs can therefore sometimes distort production decisions (such as the cut-off grade for existing mines)[13] and deter development of marginal projects,[14] which may particularly be the case during low price periods.

AVRs do not account for profitability nor the fact that cost structures may vary widely by mineral. AVRs may therefore be set too high or too low, depending on the mineral type. Pure AVR regimes also provide limited upside to the Crown in the case of highly profitable mining developments.[15]

Accounting profit royalty

APRs are levied on a mine's accounting profits. APR regimes are generally considered to provide better risk-sharing between the Crown and mining operators and are considered more progressive than revenue-based royalties because payments vary with profits.[16] However, because mining projects often have high upfront costs, a solely APR regime can mean several years before any royalty is paid, reducing early Crown revenue and certainty of return.[17]

APRs are only payable once a mine is profitable, which can support investment by reducing the financial burden during the high-cost start-up phase and in downturns. APRs are typically considered less distortionary to production decisions and mining developments because APRs do not act as an additional cost to production. This means marginal projects will still be pursued if they are profitable to do so. However, being tied to profits means marginal projects may be closed sooner, and the attractiveness of new projects may be reduced.[18]

APRs can be more complex to administer and audit because they require detailed rules and verification. Profit-linked regimes can also create incentives to shift or re-time costs to reduce measured profit for royalty purposes, increasing compliance and enforcement effort.[19]

Unit-based royalties

Unit-based royalties apply a specified charge per unit of production (e.g., per tonne), regardless of the sales value received. Unit-based royalties provide a guaranteed minimum return to the Crown, depending on production and are simple to administer and audit.

Unit-based royalties are often considered economically inefficient because they do not reflect either the market value of the resource or the costs of extraction and production.[20] Unit-based royalties are payable regardless of price or profitability, so have the potential to distort or deter production decisions and development of marginal projects.

[12] Ministry of Business, Innovation and Employment (n.d.-b)
[13] Otto, J. et al (2006)
[14] Hogan, L (2008, September 17)
[15] Office of the Minister of Energy and Resources (n.d.)
[16] Otto, J. et al (2006)
[17] Otto, J. et al (2006)
[18] Otto, J. et al (2006)
[19] Otto, J. et al (2006)
[20] Office of the Minister of Energy and Resources (n.d.)

Variations on ad valorem, accounting profit and unit-based royalties

Royalty regimes often incorporate additional design mechanisms that modify how AVR, APR, and unit-based royalties operate in practice. A key mechanism is the use of minimum floors and hybrid structures, where AVRs function as a guaranteed baseline return from production, while APRs or other profit-linked components introduce upside sharing. New Zealand's use of a "higher of AVR or APR" approach reflects this.

Other sets of mechanisms relate to price responsiveness, including thresholds, escalators, and caps. Thresholds (such as revenue or profitability triggers) can defer or reduce royalty payments for small or early-stage operations, while progressive or margin-linked rates increase the Crown's share as profitability rises.

Section 2: Effective government take

Analysis of effective government take

The Crown owns mineral resources and receives a return through royalties, taxes, and other mechanisms. Estimates of effective government take suggest a total imposition of 35% to 51% of profits, depending on mineral type, across all royalty regimes combined.

Overview of section

This section provides an overview of New Zealand's current royalty settings, detailing how royalty rates operate across different mineral types and permit tiers. It also provides an overview of other Crown charges and levies that apply to the sector and describes legacy and grandfathered regimes.

Using available data, this section quantifies the combined impact of royalties and other impositions to estimate the effective government take from the minerals sector.

This section also establishes a baseline measure of the government's take from mineral development which is essential to inform fairness, competitiveness, and the assessment of the impact of potential alternative royalty settings.

What is "effective government take"?

For the purposes of this report, "effective government take" includes mineral royalties, corporate income tax, sector-specific levies (e.g., the Energy Resource Levy) and other regulatory fees and charges imposed by government agencies (e.g., Department of Conservation (DOC) charges). While royalties, corporate income tax, and the Energy Resource Levy are assessed quantitatively, other taxes, fees, and charges are assessed qualitatively due to data limitations, ensuring the analysis captures the full extent of the government imposition on the sector.

The analysis covers Tier 1 and Tier 2 operations within three groupings, namely metallic minerals, coal, and aggregates.

This section draws on MBIE administrative data from 2006 to 2025. Key limitations include missing data for many observations, in particular net sales revenue, royalty amounts, and ERL amounts, with missing net sales revenue likely to be the most significant source of distortion, as well as incomplete coverage of non-MBIE charges, and the need to impute profit (as only revenue is observed). Results should therefore be interpreted as indicative averages.

Current royalty settings

Royalties apply to any minerals that are part of the Crown mineral estate. The Crown owns all gold, silver and uranium in New Zealand. The Crown's automatic mineral ownership also extends to all minerals within New Zealand's Exclusive Economic Zone and its Extended Continental Shelf.[21] It is estimated that the Crown owns approximately half of the country's in-ground coal, metallic and non-metallic minerals and aggregates in New Zealand, either by right or because they are contained within Crown-owned land.[22]

[21] New Zealand Petroleum & Minerals (2017, January 17)
[22] New Zealand Petroleum & Minerals (2017, January 17)

The current royalty regime was established following a major review of the Crown Minerals framework in 2012–2013. That review was driven by concerns, identified by officials, that royalties from mineral development in New Zealand were low by international standards. At the time, the effective government take from mineral development, defined as royalties plus taxes, was estimated at approximately **33% of accounting profits**, compared with an estimated range of **37% to 59%** in other jurisdictions, depending on the commodity and country.[23]

Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013

New Zealand's royalty settings are set out in the Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013. Royalties apply to Crown minerals obtained under a permit that are:

- Sold
- Used in production
- Exchanged
- Removed without sale
- Unsold at permit expiry.

The Crown Minerals Regulations 2013 further stipulate that royalties do not apply if:

- Minerals are deemed "unavoidably lost" by the Minister; or
- Net sales revenue is:
    - Less than $200,000 per reporting period (or $16,666 per month for interim royalties); or
    - The calculated royalty is less than $2,000 per reporting period (or $167 per month interim).

Tiers of minerals extraction

There are three classifications or "tiers" of mineral extraction, based on the scale, risk and impact of activities. All permits issued by NZPAM are classified as either Tier 1, 2 or 3.[24] Tiers 1 and 2 were introduced as part of the Crown Minerals Regulations 2013. There is no distinction between tiers of mining operations subject to grandfathered regimes.

Tier 1 permits are considered complex, higher-risk and higher-return mineral operations that require more proactive regulatory oversight. A mining permit is classified as Tier 1 if any of the following conditions apply:[25]

- Gold, silver, or platinum-group metals are being mined, and the annual royalty is expected to be $50,000 or more in any permit year within the next five years.
- Coal, ironsand, or other metallic minerals are being mined, and annual production will be at least 500,000 tonnes of ironsand or ore, or at least 200,000 tonnes of coal, in any permit year within the next five years.
- The operation involves underground mining, or the operation is offshore (specifically 50m or more seaward of the mean high-water mark) and is not a "special purpose mining activity."

Tier 2 permits cover lower-return industrial or small business mineral operations.

[23] Office of the Minister of Energy and Resources (n.d.)
[24] New Zealand Petroleum & Minerals (2025, October 20)
[25] New Zealand Petroleum & Minerals (2026a, March 26)

Tier 3 applies to small-scale, non-commercial gold mining for recreational or hobbyist purposes.[26] Tier 3 permits are out of scope for this review.

Current royalties in place for coal and metallic minerals

New Zealand currently has a hybrid royalty regime for Tier 1 mining which includes coal and metallic minerals. The hybrid regime uses both ad valorem royalties and accounting profit royalties (AVR and APR respectively).

Royalties are quoted exclusive of GST, which is applied on top of the stated rates.

Table 3 below outlines the royalty rates for Tier 1 permits. Coal and gold, as two of the major minerals extracted in New Zealand, have specific royalty rates. All gold that is commercially mined in New Zealand is subject to Crown royalties. Coal, on the other hand, is not always subject to Crown royalties because some coal is privately owned, and therefore subject to private commercially agreed royalty rates between mine operators and landowners.

Table 3 – Royalties for Tier 1 permits[27]

Mineral	Royalty Rate
Coal (accounting profits ≤ $5 million)	AVR of 2%
Gold (accounting profits ≤ $2 million)	AVR of 2%
Underground coal gasification	The higher of an AVR of 1% or APR of 10%
All other minerals (including gold and coal above the respective thresholds)	The higher of an AVR of 2% or APR of 10%

Source: Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013

Tier 2 permits are subject to different royalties than Tier 1 permits, reflecting the smaller scale of operations.

Tier 2 coal is subject to an AVR of 2%, and all other Tier 2 permits are subject to an AVR of 1%. Tier 2 Crown Minerals contained within Schedule 2 of the Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013 are subject to fixed per-tonne or per cubic metre rates. Schedule 2 minerals include aggregates and quarried material and are presented in the section below.

Current royalties in place for aggregates

New Zealand implements a flat per-tonne or cubic metre royalty rate for Crown-owned aggregates and quarried materials as set out in Schedule 2 of the Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013, with rates adjusted for inflation through indexation using the Input Producer Price Index (PPI).[28] There is a range of rates that varies by aggregate type.

[26] New Zealand Petroleum & Minerals (2025, October 20)
[27] New Zealand Government (2025, September 25)
[28] New Zealand Government (2025, September 25)

Table 4 – Royalty rates for Schedule 2 Minerals as per the Crown Minerals Regulations 2013[29]

Schedule 2 Mineral	2013 per tonne rate	2026 adjusted
Aggregate and construction materials (including rock, sand and gravel for roading, building, fill reclamation, and protection purposes	$0.11	$0.15
Bentonite	$0.92	$1.27
Clay for brick and tiles	$0.11	$0.15
Clay for pottery	$0.34	$0.47
Decorative/dimension building stone	$1.72	$2.38
Decorative pebbles	$0.34	$0.47
Diatomite	$1.72	$2.38
Dolomite	$0.23	$0.32
Limestone for agriculture, cement and industry	$0.23	$0.32
Marl	$0.11	$0.15
Perlite	$0.34	$0.47
Pumice	$0.11	$0.15
Serpentinite	$0.34	$0.47
Silica sand for industry	$0.34	$0.47
Zeolite	$1.72	$2.38
Peat*	$0.34	$0.47

**The royalty rate for peat is applied on a per cubic metre rather than per tonne basis.*

Source: New Zealand Petroleum & Minerals

The royalty rate for minerals on a per-tonne basis ranges from $0.15 to $2.38, adjusting for inflation through indexation using the Input PPI. A significant proportion of aggregate output falls under aggregate and construction materials (including rock, sand and gravel for roading, building, fill reclamation, and protection purposes) which has the minimum royalty rate of $0.15 per tonne.[30]

Peat is the only mineral levied using a per cubic metre rate. The rate for peat is $0.34 per cubic metre at the time of the 2013 regulations, or $0.47 when adjusted for 2025 Q4 PPI.

Other Crown impositions on the mineral sector

In addition to royalties, there are a wide range of additional fees, taxes and levies which apply to mineral sector participants. The list of additional impositions was compiled via a desktop scan of relevant government information sources and were further validated via a questionnaire fielded to mineral permit holders on MBIE's internal database.

[29] New Zealand Petroleum & Minerals (2026, May 26)
[30] New Zealand Petroleum & Minerals (2024, November 29)

Application and permit fees

Entities looking to explore, prospect, or mine in New Zealand must pay application fees. There are additional fees for making a change to a permit, extending exploration permits and transferring permits. These fees range from $2,350 to $16,675 depending on tier and application type and are payable to New Zealand Petroleum and Minerals. Exploration, prospecting and mining each also attract annual permit fees in addition to the initial application fee.[31]

Levies

Coal faces additional levies via the Energy Resource Levy. Two flat per tonne rates applied to South Island lignite and all other types of coal have been in force since 1976.[32]

Table 5 – Energy Resource Levy rates[33]

Coal type	Energy Resource Levy Amount
South Island lignite	$1.50 per tonne
All other types of coal	$2.00 per tonne

Source: New Zealand Petroleum & Minerals

Other fees, taxes and levies

In addition to royalties, application and permit fees, and levies, the minerals sector is subject to other fees, taxes and levies as part of its operations. These range from fees associated with seeking approval for a mining project through to fees associated with waste generated from mining activities. Key examples include:

- Department of Conservation (DOC) fees – These fees apply where prospecting, exploration, or mining activities occur on public conservation land and require DOC permissions. These fees are generally structured around cost-recovery for application processing, monitoring, and ongoing concession management, with additional activity-related charges depending on the nature of work undertaken.
- Fast-track approval fees – These are fees that may apply where projects seek approval through the Fast-track Approvals process.
- Ministry for the Environment (MfE) Waste Disposal Levy – This is a levy applied to commercial waste disposal facilities under the Waste Minimisation Act framework, which is relevant to parts of the minerals sector where operations generate waste that is processed through levy-liable facilities.
- Other miscellaneous fees and taxes – The minerals sector is also subject to standard taxes including Corporate Tax, Trustee Tax, Personal Income Taxes, and GST. GST is incurred when mineral industry participants make purchases of final goods and services in the marketplace.

Taken together, these additional charges sit alongside royalties and contribute to the overall effective government take. A detailed description of DOC, Fast-track approval and MfE fees is set out in Appendix 3.

Legacy and grandfathered regimes

This section outlines the legacy and grandfathered regimes reflected in the data used to calculate the effective government take.

[31] Specific details of application fees are set out in Appendix 3.
[32] New Zealand Government (2023, May 20)
[33] New Zealand Petroleum & Minerals (2026, May 26)

Prior to 1996, royalty rates were not prescribed in a single consolidated schedule; instead, they were set on a permit-specific basis and determined by the Minister. Consequently, royalty rates from this period vary across permits and are not readily comparable on a standardised basis with those under later regimes.

These pre-1996, non-standardised regimes include those established under the Iron and Steel Industry Act 1959,[34] the Mining Act 1971,[35] the Coal Mines Act 1979,[36] and the Crown Minerals Act 1991 (as originally implemented, until 1996).[37]

The Crown Minerals (Fees) Regulations 1991 introduced application fees and annual permit fees for mining related activities.[38] The application fees in 1991 and those that came into effect in 2006 are set out in Appendix 3.

For clarity, the Energy Resource Levy is excluded from this section. As it has been levied continuously since 1977 under legislation that remains in force, it does not constitute a legacy regime.

Introduction of standardised royalties

The Minerals Programme for Minerals Other than Coal and Petroleum 1996, and the Minerals Programme for Coal 1996, introduced standardised Crown royalties of Crown minerals. The circumstances in which a royalty was payable under this regime are broadly consistent with the current framework, with a few key differences in the conditions:

- Net sales revenue threshold set at $100,000 per reporting period ($200,000 today).
- There was no calculated royalty amount below which royalties were not payable.
- There was no explicit exemption for minerals that are deemed "unavoidably lost."

As shown in Table 6, royalty rates were simpler and did not discriminate by mineral type. A hybrid regime based on revenue was in place, with lower royalty rates than today.

Table 6 – Royalty rates under the Minerals Programme for Minerals Other than Coal and Petroleum 1996 and the Minerals Programme for Coal 1996[39, 40]

Mineral	Royalty rate
All minerals (net sales revenue ≤ $1m)	AVR of 1%
All minerals (net sales revenue > $1m)	AVR of 1% or APR of 5%, whichever is greater

Source: New Zealand Petroleum & Minerals

2008 changes to royalty regime

The Minerals Programme for Minerals (Excluding Petroleum) 2008 established a new royalty regime for minerals. It introduced fixed per tonne or cubic metre rates for specified minerals, and delegated authority to the relevant Minister to determine an appropriate AVR for lignite, underground coal gasification, and any other unspecified mineral.

[34] New Zealand Government (1959, October 23)
[35] New Zealand Government (1971, September 25)
[36] New Zealand Government (1979, October 1)
[37] New Zealand Government (2026, May 19)
[38] New Zealand Government (1991, September 16)
[39] New Zealand Petroleum & Minerals (1996a, October 1)
[40] New Zealand Petroleum & Minerals (1996a, October 1)

Under this regime, where a permit covered two or more minerals spanning both a specific royalty and an AVR, the royalty payable was calculated as an AVR on the combined net sales revenue. The conditions under which a royalty was payable were broadly similar to those under the current regime, although an explicit "unavoidably lost" exemption criterion did not exist.

Table 7 – Royalty rates under Minerals Programme for Minerals (Excluding Petroleum) 2008[41]

Mineral	Royalty rate
Gold, silver, and platinum group elements (net sales revenue ≤ $1.5m)	AVR of 1%
Gold, silver, and platinum group elements (net sales revenue > $1.5m)	AVR of 2%
Specified minerals (equivalent to Schedule 2 (from the 2013 regulations) + some types of coal)	Fixed per-tonne or per-cubic metre rates (indexed annually to PPI)
Lignite, underground coal gasification, and any other mineral not already specified	AVR determined by the Minister

Source: New Zealand Petroleum & Minerals

The 2008 royalty regime introduced fixed per tonne and per cubic metre rates for aggregates, industrial minerals, and coal. Fixed rates for aggregates and industrial minerals were retained in the 2013 regime, but those for coal were replaced by a hybrid AVR/APR system. The 2008 regulations allowed for occasional adjustments in line with the Producer Price Index (PPI), but this was formalised in the 2013 regulations. See Appendix 3 for a detailed breakdown of the per tonne and per cubic metre rates set out in the 2008 regulations.

Effective government take

The calculation of the government's effective return from the mineral sector is based on anonymised proprietary data provided by MBIE, comprising mineral production data and invoices issued by NZPAM covering the period from 2006 to 2025. This data includes net sales revenue, royalty amounts, and ERL amounts, enabling the calculation of royalty and ERL takes as a percentage of profit, with net sales revenue converted to profit using an estimated profit margin. Corporate tax takes are also estimated and incorporated, reflecting New Zealand's flat corporate tax rate as a percentage of profit. Calculations are split by mineral category (metallic minerals, coal, and aggregates) and exclude Tier 3 minerals. The effective government imposition of taxes and royalties (including the ERL) was calculated as a percentage of revenue, before being converted to a percentage of profit using an estimated profit margin based on the Stats NZ annual enterprise survey.[42, 43]

Across the three mineral categories, the effective government take (corporate tax, royalties, ERL), when calculated across all regimes combined, is estimated to range from 35% to 51% of profit.44 It should be noted that these estimates are not representative of the 2013 regime. In 2025, 97% of the Crown's royalty take came from permits on

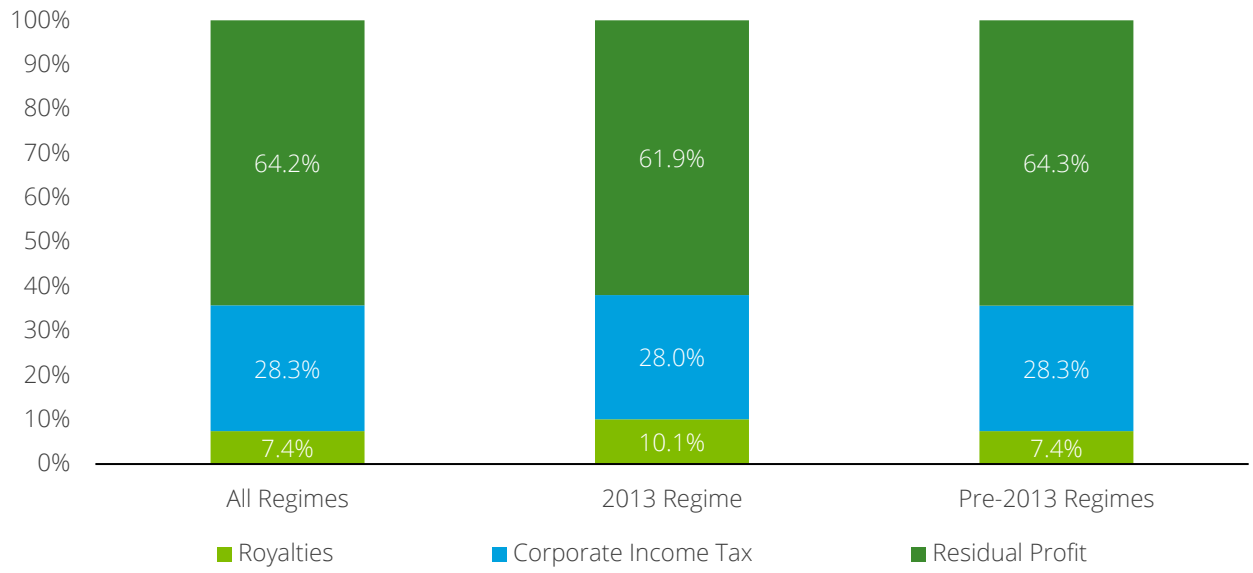
[41] New Zealand Petroleum & Minerals (2008, February 1)
[42] Stats NZ (2025, June 27)
[43] The method for calculating imputed profit is set out in Appendix 2.
[44] Royalty amounts include GST and have not been adjusted for tax deductibility (i.e. royalties are expressed as a percentage of profit by dividing royalty payments by profit, without adjusting the profit base to reflect their deductibility). To the extent that GST is claimable and royalties are tax deductible, the royalty percentage may be slightly overstated.

legacy regimes, reflecting long development timelines.45 As a result, legacy regimes will continue to materially influence effective government take into the future in the absence of any changes to royalty regime settings.

Metallic minerals

Figure 1 provides the effective take calculations for metallic minerals, broken down by the effective average take across all regimes, the 2013 regime and pre-2013 regimes.

Figure 1 – Effective government take for metallic minerals



Source: Deloitte Access Economics

The effective take for royalties and corporate tax across all regimes is similar for regimes established prior to 2013 and sits at approximately 36%. For the 2013 regime, the effective government take for royalties and corporate tax is higher, sitting at approximately 38%.

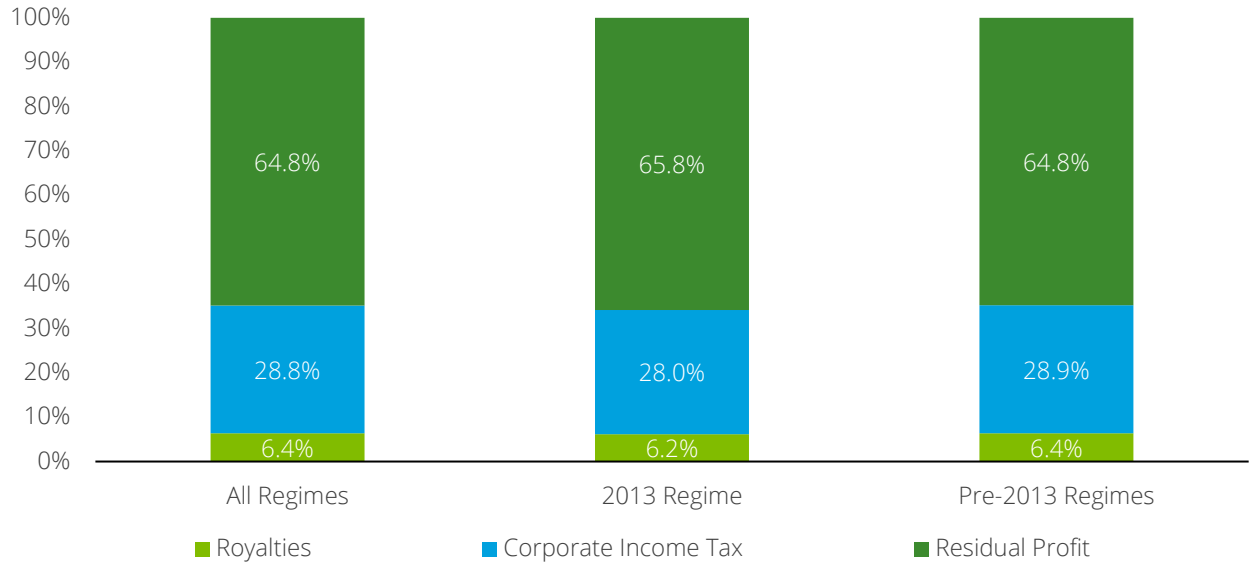
The effective take for royalties and corporate tax across all regimes amounts to approximately 36% and is similar to the take calculated for the pre-2013 regime. This is driven by the fact that most permits are subject to pre-2013 regimes, with 99.5% of royalty revenue from metallic minerals in the dataset coming from permits on legacy regimes.[46]

Aggregates

Figure 2 provides the effective take calculations for aggregates, broken down by the effective average take across all regimes, the 2013 regime and pre-2013 regimes.

[45] Based on calculations done in the Effective Government Take Model, which uses royalty return data provided by MBIE.
[46] Based on calculations done in the Effective Government Take Model, which uses royalty return data provided by MBIE.

Figure 2 – Effective government take for aggregates



Source: Deloitte Access Economics

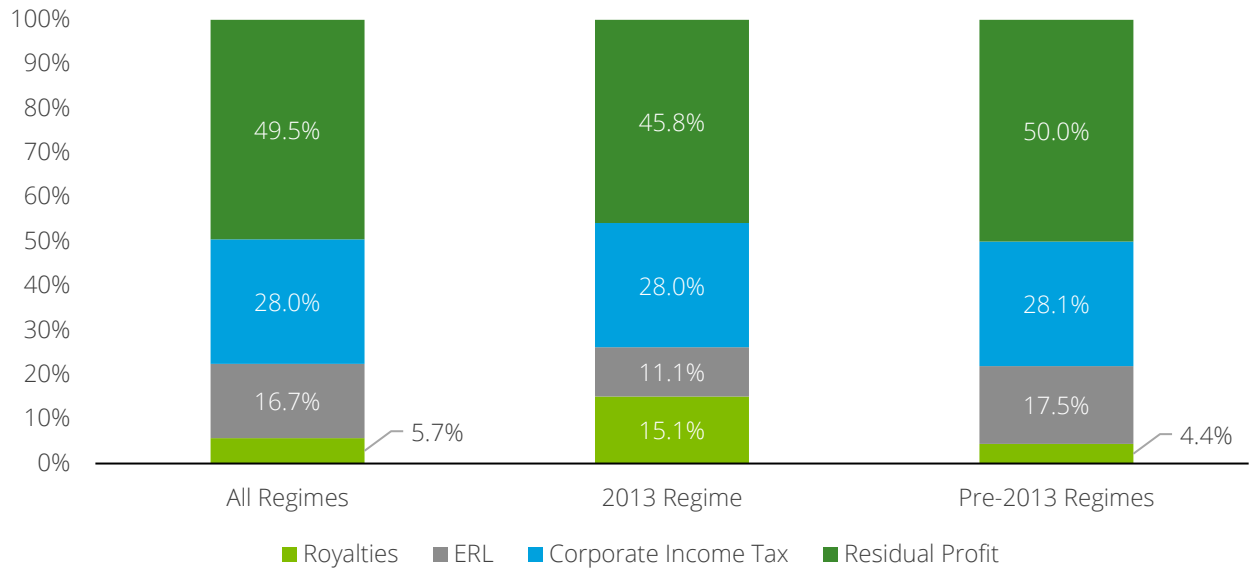
The effective take for royalties and corporate tax is similar across all regimes, the 2013 regime and pre-2013 regimes, sitting at around 34% to 35%. This stems from the fact that royalty rates for aggregates have remained relatively stable across different regimes.

At 34% to 35%, the effective government take for aggregates is slightly lower than that for metallic minerals, which ranges from 36% to 38%.

Coal

Figure 3 provides the effective take calculations for coal, broken down by the effective average take across all regimes, the 2013 regime and pre-2013 regimes.

Figure 3 – Effective government take for coal



Source: Deloitte Access Economics

Across all regimes, the effective take for royalties including the Energy Resources Levy (ERL) and corporate tax is about 51%. The effective take from the coal sub-sector is therefore higher than for aggregates and metallic minerals. This difference is largely driven by the inclusion of the ERL, which only applies to coal.

The result for all regimes is driven by the pre-2013 regimes result (86% of royalty revenue from coal in the dataset came from permits on grandfathered regimes),[47] where the effective take is approximately 50%. The ERL accounts for a larger share and royalties for a smaller share of a combined smaller overall share of profits compared to the post-2013 regime.

The effective take for royalties, the ERL and corporate tax post-2013 is higher, at about 54%, with the royalty take exceeding the ERL take.

The shift towards non-ERL royalties as the predominant source of government take for coal is likely due to changes to the regime which reintroduced a hybrid AVR/APR royalty on coal production in 2013. Effective royalty rates under grandfathered regimes were generally lower.

Tier 1 and Tier 2 breakdown

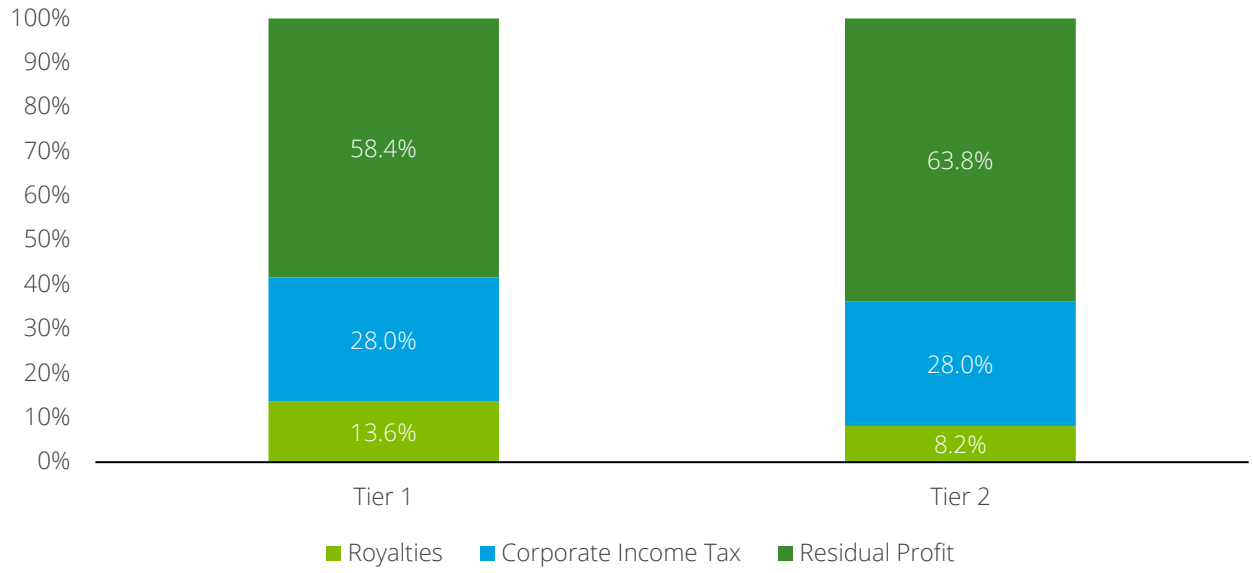
Tier 1 and Tier 2 are the tiers of mining operations in scope for this analysis, with recreational or hobbyist Tier 3 mining out of scope. A breakdown of the government take across Tier 1 and Tier 2 operations for metallic minerals and coal is presented in Figure 4. Aggregates are excluded from this analysis as the data does not contain Tier 1 observations for aggregates.

Tiers were introduced as part of the 2013 regulations, however MBIE's dataset categorises all operations under tiers including those that are levied under grandfathered royalty regimes.[48] For this analysis, only those operations that are

[47] Based on calculations done in the Effective Government Take Model, which uses royalty return data provided by MBIE.
[48] New Zealand Government (2025, September 25)

subject to the 2013 regime were included in the breakdown as these are true Tier 1 and Tier 2 operations as per the latest royalty regime.

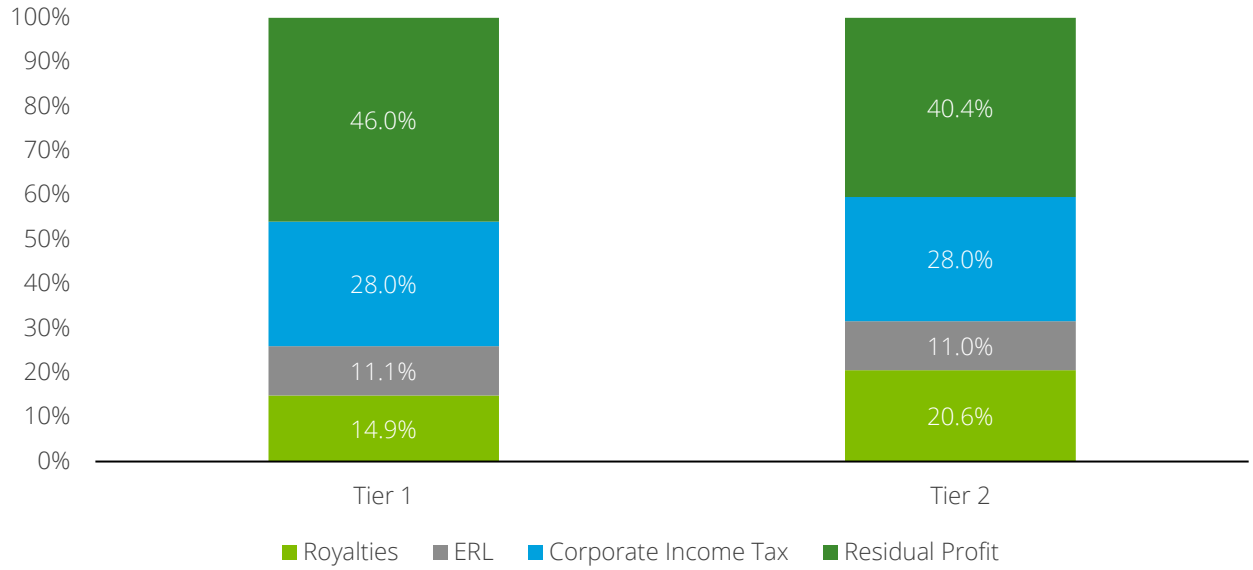
Figure 4 – Effective government take for metallic minerals, Tier 1 vs Tier 2



Source: Deloitte Access Economics

Figure 4 shows that on average, Tier 1 operations experience a higher effective royalty imposition compared with Tier 2 operations, which is expected given the higher royalty rates for Tier 1 minerals. In total, the effective take for Tier 1 is about 42% compared with approximately 36% for Tier 2.

Figure 5 – Effective government take for coal, Tier 1 vs Tier 2



Source: Deloitte Access Economics

Figure 5 shows the effective take for Tier 1 coal operations is 54%, while it is higher for Tier 2 coal operations at approximately 60%.

Although Tier 2 permits exhibit a materially higher royalty take, the royalty burden is effectively the same when measured as a percentage of revenue. This disparity reflects the fact Tier 2 observations are concentrated in years with lower profit margins compared to those associated with Tier 1 permits.

For coal, the Tier 1 and Tier 2 breakdown show a similar share of profit attributable to the ERL. However, as a percentage of revenue, the ERL is notably higher for Tier 1 operators than Tier 2 operators, consistent with the margin dynamics described above.

Sector participant insights on the current royalty regime and current conditions

This subsection provides a summary of the sector participants' perceptions of current challenges and views on the regime and overall government take. These insights draw from industry questionnaires and interviews.

Overall, industry evidence suggests that New Zealand's royalty rates are not, in isolation, a primary barrier to investment. For example, 46% of questionnaire respondents reporting that the royalty regime has "no material influence" on their plans. However, their interaction with broader regulatory, cost, and market dynamics is critical, with respondents highlighting a wide range of other government-imposed costs, and 56% reporting that "pricing and margins are under pressure."

In a small, high-cost, and uncertainty-sensitive operating environment, competitiveness depends less on any single parameter and more on the predictability, proportionality, and responsiveness of the overall fiscal and regulatory framework.

Brownfield expansion is preferred over greenfield development

Mining activity is characterised by fewer, larger, longer-life operations, alongside more widespread brownfield expansion than new greenfield development. This reflects the capital-intensive nature of the sector, the long development timeframes associated with new projects, and a preference among operators to extend or optimise existing assets.

Industry interviews indicated that long lead times, high upfront capital requirements, and approval risk are reinforcing this trend. Operators consistently noted that brownfield expansion is often preferred as it allows operators to leverage existing geological knowledge, established infrastructure, and known regulatory settings, reducing uncertainty relative to new greenfield developments.

This qualitative evidence aligns with quantitative results. Among respondents for whom prospecting plans were applicable, 84% reported that prospecting activity is being maintained or increased, rather than reduced or redirected.

Cost and margin pressures are driving focus on efficiency and cost management

Insights from industry questionnaires and interviews indicate a strong focus on operational efficiency, automation, and cost management, alongside a cautious approach to new investment during periods of uncertainty.

Questionnaire responses highlight sustained cost and margin pressures across the sector. "Pricing and margins are under pressure" was selected by 56% of respondents, making it the most frequently selected market outlook response.

36% of respondents reported that market conditions are broadly stable, and 31% identified competitive pressures as increasing, indicating that margin pressures can persist even where demand conditions are not deteriorating.

Respondents also reported exposure to a wide range of non-royalty costs that contribute to cumulative pressure. The most commonly identified costs include local authority consent charges (67% of respondents), WorkSafe fees

or charges (46%), and local authority rates (38%). These findings highlight the role of broader regulatory and compliance costs in shaping operational decisions and reinforcing the focus on efficiency.

Demand conditions are shifting

Demand signals remain mixed. Questionnaire responses show that around 21% of respondents reported strong or increasing demand, while around 15% identified weakening or uncertain demand. This combination suggests that, for many operators, revenue opportunities are partially offset by rising input costs, competitive intensity, or regulatory and administrative burdens.

Industry interviews also highlighted longer-term structural demand shifts driven by electrification, renewable energy deployment, and the growth of battery and energy storage technologies. These developments have increased demand for a range of minerals used in clean energy technologies and reinforced the strategic relevance of a secure, well-regulated domestic minerals sector. Industry interviewees linked these dynamics to the importance of long-term investment certainty, given the extended lead times associated with exploration and development and the long horizon over which returns are realised.

Investment sentiment remains cautious

Investment sentiment reported through the questionnaire remains cautious. Questionnaire responses show that 10% of respondents reported investment sentiment as weakening, while a further 31% described their market outlook as undefined or inconclusive. These responses indicate that uncertainty around costs, margins, and policy settings is influencing both the timing and scale of investment decisions.

Industry interviews reinforced this finding, with operators noting that uncertainty can delay investment, reduce scale, or prioritise lower risk options rather than immediately halting activity.

Price volatility is an important influence on investment behaviour

The sector has also experienced pronounced price cycles across key commodities. Periods of elevated prices have improved project economics and supported renewed investor interest in exploration activity, while subsequent volatility has reinforced investment caution and heightened sensitivity to cost and regulatory settings.

Operators exposed to internationally traded commodities identified price volatility as a defining feature of the investment environment. Interviewees noted that high price periods are often relied upon to recover sunk capital and build resilience for downturns.

While the questionnaire did not include a direct measure of price volatility, responses point to conditions consistent with volatility related risk. High proportions of respondents reported pricing and margin pressure (56%), competitive pressures increasing (31%), and uncertain or inconclusive market outlooks (31%), indicating heightened sensitivity to downside risk during lower price cycles.

Royalty settings are considered as part of cumulative government take

Regulatory and consenting timeframes were described by interviewees as a central consideration in investment planning, with delays or uncertainty in approvals affecting the timing, sequencing, and scale of investment. While royalty settings remain an important consideration, interview evidence suggests they are typically assessed alongside a broader set of regulatory, compliance, and administrative costs rather than in isolation.

Questionnaire results indicate that views on the royalty regime are mixed, but most commonly neutral, with 46% of respondents reporting no material influence on their plans, and 33% reporting no material impact on their market outlook when considering royalties specifically, with smaller proportions reporting negative or positive effects.

In particular, industry interviewees noted that cumulative and overlapping requirements across multiple agencies can increase complexity and cost. These impacts were described as more acute for smaller or shorter-life operations, while larger, long-life assets are generally better positioned to absorb such costs over time. Questionnaire results reinforce this pattern, with 46% of respondents reporting that capital availability is constrained, particularly among smaller Tier 2 operators, and 69% reporting low or moderate resource certainty.

New Zealand's mineral sector competitiveness is shaped by cumulative settings

New Zealand's minerals sector competes on quality, certainty, and integrity rather than scale. Investment is primarily driven by resource availability, but regulatory clarity and policy stability are critical to converting opportunities into capital deployment.

High environmental, safety, and social licence standards are a defining feature. While these increase costs, they support long-term investment certainty and reputational advantages, particularly in ESG-sensitive markets. However, the sector faces structurally higher costs than many international peers due to regulatory complexity, infrastructure and logistics constraints, and geographic distance from key markets.

Overall competitiveness is highly sensitive to the cumulative policy and cost environment. Questionnaire responses showing widespread margin pressure, high exposure to non-royalty compliance costs, constrained capital availability, and mixed demand conditions support the view that even small increases in regulatory burden, timelines, or total costs can materially shift investment decisions, particularly for marginal or shorter-life projects. Comparator jurisdictions such as Australia and Canada are perceived by interviewees as achieving a similar balance of strong regulation with lower overall cost structures.

Section 3: Fairness and transparency

Assessment of fairness and transparency of New Zealand's royalty regime

New Zealand's current minerals royalty regime is broadly assessed as fair and transparent, with a hybrid AVR/APR structure that provides the Crown with an early-life minimum return and some upside sharing. However, royalty rates sit at the low end internationally, pointing to potential scope to change royalty rates while maintaining international competitiveness.

Overview of section

This section assesses whether New Zealand's current and legacy minerals royalty settings deliver a "fair financial return" to the Crown, consistent with the Crown Minerals Act 1991 and the interpretation set out in the Minerals Programme for Minerals (Excluding Petroleum) 2025. The assessment is structured as an explicit test against defined criteria, and draws on the effective government take baseline (Section 2), international comparisons, and stakeholder evidence.

Interpretation of a "fair financial return"

Minerals Programme for Minerals (Excluding Petroleum) 2025 guidance

The purpose of the Crown Minerals Act 1991 is to promote prospecting for, exploration for, and mining of Crown owned minerals for the benefit of New Zealand. To this end, the Crown Minerals Act 1991 provides for, among other things, a "fair financial return" to the Crown for its minerals.[49]

The Minerals Programme for Minerals (Excluding Petroleum) 2025[50] sets out how a "fair financial return" is interpreted under the Crown Minerals Act 1991 and is summarised below.

[49] New Zealand Government (2026, May 19)
[50] New Zealand Petroleum & Minerals (2025, September)

How a "fair financial return" is interpreted

The words "providing for … a fair financial return to the Crown for its minerals" are interpreted as referring to royalty payments for any minerals obtained under a permit.

The term "fair" is interpreted by the Minister as referring to the need to balance the interests of the Crown (as the owner of the mineral for the benefit of New Zealand) and those of prospectors, explorers and miners, taking into account:

a) that minerals are a non-renewable resource;
b) the need to attract ongoing investment in minerals prospecting, exploration and mining in a competitive international environment; and
c) the need to provide certainty and security for investors by not changing royalty rates during the life of a permit or subsequent permit.

A further component of "fair" in the Minister's interpretation is that the Crown (for the benefit of New Zealand) should always receive a return on the mining of Crown owned minerals, subject to:

a) the permitting requirements under section 8 of the Crown Minerals Act 1991; and
b) the requirements of the Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013 or other royalty provisions applicable to the permit or privilege.

Overall, these considerations lead to a royalty regime for Tier 1 minerals that:

a) provides for an immediate but low ad valorem royalty that ensures that the Crown always receives some return for the mining of minerals; and
b) provides for an accounting profits royalty so that the Crown shares in the benefits if a mineral resource proves to be particularly profitable.

For the purposes of this review, a "fair financial return" is interpreted consistently with the Minerals Programme as a balance between (i) securing a return for the Crown as owner of a non-renewable resource and (ii) maintaining incentives for investment in prospecting, exploration, and mining in a competitive international environment, supported by stable and predictable royalty settings over the life of permits.

In practice, a "fair financial return" requires a regime that provides a guaranteed minimum return, enables participation in upside returns when profitability is high, and maintains sufficient investment incentives to support efficient development of mineral resources.

The Programme also indicates that the Crown should receive some return from mining Crown-owned minerals, and that a Tier 1 design combining a low ad valorem royalty with an accounting profit royalty can provide both early-life returns and upside participation where profitability is high.

Previous assessments of a "fair financial return" to the Crown

Previous assessments of whether the Crown was receiving a "fair financial return" provide further guidance in assessing whether the current and grandfathered royalty regimes provide the Crown with a "fair return".

In a 2012 Cabinet paper on Royalties on minerals,[51] "fair financial return" was explicitly interpreted as a balance of interests between the Crown's interest in capturing value for the public and industry's need for incentives to prospect, explore, and mine.

The Cabinet paper reviewed against four objectives, the same as those used in the earlier petroleum royalty review:

- Provide a fair return to the Crown
- Be neutral/non-distortionary
- Provide appropriate risk-sharing
- Be simple to administer.

Importantly, the paper states that the "fair financial return" objective was treated as more important than the other objectives, which shaped the preferred option.

The recommendation was to adopt a 2% AVR on net sales revenues for most mines, and 10% APR on accounting profits for larger, more profitable mines (subject to thresholds for most minerals). The proposal was also designed to manage investment certainty by grandfathering existing permits (and extending that grandfathering through subsequent permits linked to existing exploration/prospecting), with the new rates applying to new permits only to avoid increasing perceived sovereign risk.

This package was deemed to deliver a "fair financial return" primarily because it provided a guaranteed minimum return at the outset of production (via AVR) and gave the Crown upside exposure when mines are highly profitable (via APR). By contrast, a pure APR was judged weaker on fair return because it could take years to generate any royalty payment, given high upfront costs. This implied the Crown might receive nothing early in the mine life.

The paper also grounded "fairness" in international context and fiscal outcomes, noting New Zealand's nominal government take (royalties plus taxes) was around 33% of accounting profits, compared with overseas jurisdictions typically 37% to 59%, and concluded there was scope to lift returns while remaining competitive.

Comparison with international jurisdictions

The current royalty regime was established following the 2012–2013 review, which identified that royalties from mineral development in New Zealand were low by international standards. At the time, the effective government take from mineral development, defined as royalties plus taxes, was estimated at approximately 33% of accounting profits, compared with an estimated range of 37% to 59% in other jurisdictions, depending on the commodity and country.[52]

This subsection undertakes a comparison of the current royalty regime and previous regimes with international jurisdictions in terms of royalty types and rates, with the purpose of informing the assessment of whether the Crown is receiving a "fair financial return." Further, the section compares the estimated effective take across jurisdictions derived in Section 2.

A detailed comparison of the royalty types and rates across 13 jurisdictions (including New Zealand) comprising states, territories, and countries was completed. Jurisdictions were selected for their comparability with New Zealand across factors such as population size, GDP per capita, regulatory environment, and mineral composition.

The full table containing detailed comparisons between the 13 jurisdictions can be found in Appendix 6: International literature review table. Table 8 provides a concise summary of the international jurisdiction review, focussing on the range of AVR and APR rates, the prevalence of hybrid regimes and the treatment of aggregates.

[51] Office of the Minister of Energy and Resources (n.d.)
[52] Office of the Minister of Energy and Resources (n.d.)

Table 8 – Summary of international jurisdiction review

Summary item	Range or prevalence	Commentary
Range of AVR rates	0.5% to 40%	The lowest AVR stated is 0.5% (e.g., placer gold in British Columbia and the lower bound in South Africa's formula-based AVR). The highest AVR stated is up to 40% (Queensland coal). Many other AVRs sit in the ~1% to 10.8% band depending on mineral and processing stage (e.g., NSW 4% non-coal and 8.8% to 10.8% coal; WA 2.5% to 7.5%; Victoria 2.75%).
Range of APR rates	2% to 28%	Where explicit profit-based rates are stated, the lowest profit-based rate is 2% (British Columbia "net current proceeds" tax before capital costs are recovered). The highest APR stated is 28% (Québec, progressive by profit margin). Chile's profit-based component is 8% to 26% (margin-linked).
Prevalence of hybrid royalty regimes	Hybrid regimes are commonplace but are not universal.	Explicit hybrids (clearly described as hybrid AVR/APR, or combined AVR+APR) appear in certain jurisdictions (e.g., Québec and Chile). Hybrid-like / dual-instrument approaches also appear (e.g., British Columbia lists both an AVR and a profit-based tax; Ireland notes AVR/APR/unit rates may apply individually or in combination but are negotiated case-by-case). Several jurisdictions are AVR-dominant (notably Australian states), while some have no statutory mineral royalties (e.g., Norway and the UK).
Treatment of aggregates	Most explicit aggregate-style treatments are unit-based (per-tonne / per-m^3) where noted.	Fixed per-tonne / per-m^3 royalties are used in multiple jurisdictions that list unit rates (e.g., Finland industrial minerals; several Australian states list fixed per-tonne or per-m^3 rates alongside AVR regimes). By contrast, some jurisdictions report no statutory mineral royalties (e.g., Norway and the UK).

A note on the international comparisons

The review of international royalty regimes makes clear that hybrid royalty regimes are commonplace. However, there is a very high degree of variation between jurisdictions in terms of how royalties apply.

For instance, some jurisdictions apply a reduced profit-based royalty until a mining operation's capital costs are recovered. In other jurisdictions, royalties are progressive based on criteria such as profit margins or sales revenue. In addition, some jurisdictions apply subsidies and tax credits for some activities such as exploration or downstream processing. The high degree of variation makes a direct jurisdiction to jurisdiction comparison inappropriate as royalty rates in one jurisdiction do not necessarily align with those in another, even if the royalty type is the same.

Royalty regimes are designed to reflect factors including, but not limited to, the unique legislative settings, industry structure, government priorities, mineral composition and mineral abundance in each jurisdiction. In addition, royalty rates are just one of many considerations firms have when making decisions about the deployment of capital into mining related activities internationally.

Other fees, taxes, levies, rules, subsidies, and credits play a significant part in determining the overall attractiveness and feasibility of exploring, prospecting, and mining in any given jurisdiction. As such, direct comparisons of government take across jurisdictions, expressed as a percentage of accounting profits, are not undertaken in this analysis. Comparisons have been restricted to royalty regime type (e.g., hybrid or purely AVR or APR), rates, and their transparency.

The current regime (2013) compared to international jurisdictions

Effective take

New Zealand's effective take ranges from 34% to 54% of accounting profits, based on the current regime,[53] as shown in Section 2. This range is comparable to jurisdictions including British Columbia, Québec, and Chile, but is relatively low compared with Australian states. The rates derived for these jurisdictions were estimated by adding the respective corporate tax rate and the APR rate.

A range of 34% can be compared with international jurisdictions that levy an APR by simply adding the corporate tax rate and the APR rate. In Québec, this results in an effective government take of between 42.5% and 54.5%,[54] and in British Columbia between 29% and 40% (using the standard corporate tax rate, noting that small businesses may qualify for a reduced rate). In Chile, the equivalent range is 33% to 46.5%. In this context, New Zealand's effective take is broadly comparable with overseas jurisdictions.

When compared with Australia, however, New Zealand's effective take appears lower. No Australian states levy an APR, so AVRs must be converted to a percentage of profit using an assumed profit margin. For this purpose, the average profit margin for the minerals sector in New Zealand between 2020 and 2024, based on the Stats NZ annual enterprise survey, has been used.[55, 56] Some Australian states apply a wide range of AVRs, resulting in broad effective

[53] This range differs from the range stated previously, as these estimates are based on the current regime, whereas the earlier estimates were based on all regimes combined.
[54] Note that Québec operates a hybrid model where operators pay the higher of AVR or APR. As this range is based on corporate tax plus APR rates, it is conservative and actual effective take will be higher where AVR applies.
[55] Stats NZ (2025, June 27)
[56] Calculations are based on data provided by MBIE.

take ranges; however, the lower bounds are informative. In New South Wales, it is 56.9%; in Victoria, 47%; in Queensland, 35%; and in Western Australia, 45%. This indicates that the effective government take in each of these states is higher than in New Zealand.

However, there are limitations with this comparison. In the absence of actual royalty data as was provided for New Zealand, a robust or definitive estimate of the effective take of international jurisdictions was not possible. Australian states do not levy APRs, only AVRs. This necessitates converting AVRs to a percentage of profit using an assumed profit margin. Australian states also use a wide range of AVR rates, meaning the estimated effective take range is wide. In other jurisdictions, the corporate tax rate is variable, which reinforces the need for actual royalty data to properly calculate the effective take in each jurisdiction as has been done for New Zealand in this report.[57]

Regime design and transparency

New Zealand's use of a hybrid regime combining AVR, APR and fixed per-tonne or per-cubic metre rates is consistent with many of the jurisdictions reviewed. Jurisdictions which have recently changed their royalty regimes or are about to do so (Chile and Finland respectively) have adopted hybrid approaches. South Africa's formula-based AVR royalty includes a profitability component, making regimes with no profit considerations rare in the sample. The exception is the Australian states, which tend to favour AVRs for metallic minerals and coal.

New Zealand's mineral royalty rates are highly transparent. Unlike jurisdictions such as Ireland, which has opaque royalty settings due to their case-by-case nature, New Zealand's regime clearly publishes the royalty rules, rates and other requirements.

Rates

The royalty rates in New Zealand are low by international standards. New Zealand's AVR of 1% or 2% particularly stands out as being among the lowest in the sample of jurisdictions studied. New Zealand's 10% APR is also among the lowest rates in the sample of jurisdictions studied.

This finding is further validated through stakeholder engagement, in which industry participants expressed that the current royalty rates are acceptable, indicating that there is not a strong market sentiment that royalties are overly burdensome.

It should be noted that while New Zealand has some of the lowest royalty rates among the jurisdictions sampled, New Zealand has one of the highest corporate tax rates. Only Australian mining companies are likely to be subject to a higher corporate tax rate than New Zealand mining companies among the jurisdictions studied.

Grandfathered regimes (1996, 2008) compared to international jurisdictions

The two grandfathered regimes considered in this analysis are those introduced in 1996 and 2008 under their respective regulations. The 1996 regime was set out under The Minerals Programme for Minerals Other than Coal and Petroleum 1996 and the Minerals Programme for Coal 1996. The 2009 regime was set out under The Minerals Programme for Minerals (Excluding Petroleum) 2008. Prior to 1996, royalty rates were not prescribed in a single consolidated schedule; instead, they were set on a permit-specific basis and determined by the Minister. Consequently, royalty rates from this period vary across permits and are not readily comparable on a standardised basis with those under later regimes. Although the mineral royalty regime came about in 1991 under the Crown

[57] The average profit margin in New Zealand between 2020 and 2024 was 12.53% , implying a conversion rate of 1 percentage point AVR to 7.98 percentage points APR. See Appendix 6 for the corporate tax rates and royalties from which the ranges stated are derived. A comprehensive derivation for each jurisdiction applying AVRs has not been undertaken due to the uncertainty associated with converting AVRs to APRs. To the extent that AVR is tax deductible, the lower bound estimates for Australian states may be slightly overstated.

Minerals Act, formalised royalty rates were not established until 1996, and these were then overhauled in 2008 before transitioning into the current 2013 regime.

Compared with modern regimes in international jurisdictions, New Zealand's grandfathered regimes feature markedly lower rates across both the 1996 and 2008 regimes, with the 2008 regime also featuring a lower degree of transparency considering that certain AVR rates were determined at the discretion of the relevant Minister rather than set in statute. These themes are discussed in detail below.

1996 Regime

The 1996 regulations established a hybrid royalty regime applying to all minerals.[58] The rates were low by current international standards, with a 1% AVR for operations with net sales revenue of less than or equal to $1 million per reporting period, or an APR of 5% for operations with net sales revenue exceeding $1 million per reporting period. The comparatively lower rates and the hybrid structure of the 1996 regime therefore place more weight on international competitiveness and resource development.

2008 Regime

The Minerals Programme for Minerals (Excluding Petroleum) 2008 introduced substantial changes to New Zealand's mineral royalty regime by removing the APR and keeping an AVR of 1% or 2% on most minerals, alongside unit royalties for aggregates set at a fixed dollar rate per tonne or cubic metre. Additionally, lignite, underground coal gasification, and any other mineral not already specified moved to an unspecified AVR determined at the Minister's discretion on a case-by-case basis.

The move towards an AVR based regime places greater weight on certainty and stability of Crown revenue, while removing administrative complexities associated with profit-based royalties. Although rates remained low by international standards, AVRs are generally considered distortionary within the market and favour administrative simplicity and stable guaranteed revenue to the Crown. The introduction of rates for certain coal types and any non-specified minerals determined by the Minister introduced a degree of opacity to what was previously a transparent and straightforward regime.

Assessment of "fair financial return"

This subsection turns to the overall assessment of whether New Zealand's current and grandfathered regimes (focussing on the 1996 and 2008 regimes) provide a "fair financial return" to the Crown. The assessment is structured as an explicit test against defined criteria, and draws on the effective government take baseline (Section 2), international comparisons, and stakeholder evidence.

Criteria used to assess "fair financial return"

Based on the interpretation and prior assessment of a "fair return" above, seven key criteria were identified against which returns under current and grandfathered regimes are assessed for fairness. While all criteria are relevant, particular weight is placed on whether the regime secures a return to the Crown and enables participation in upside when profitability is high, consistent with the interpretation set out in the Minerals Programme. These criteria are set out in detail in Table 9.

[58] When the Minerals Act 1991 came into effect, statutory minerals were not set out. It was only in 1996 when The Minerals Programme for Minerals Other Than Coal and Petroleum 1996, and The Minerals Programme for Coal 1996, came into effect that New Zealand had codified mineral royalty rates

Table 9 – Criteria definitions for "fair financial return" assessment

Fairness criterion	Definition
Crown always receives some return	The extent to which the royalty regime ensures that the Crown collects a return on its mineral estate on behalf of the New Zealand public in all circumstances, including early in the project lifecycle. This reflects the principle that, as owner of a non-renewable resource, the Crown should receive a guaranteed minimum return.
Upside sharing when profits are high	The degree to which the regime enables the Crown to share in higher returns when mining projects are profitable. This reflects a risk and reward sharing principle in which the Crown's return should reflect market conditions facing the mineral extraction sector.
Balance with investment incentives and competitiveness	The extent to which royalty settings strike a balance between generating a return to the Crown on behalf of the New Zealand public and maintaining incentives for investment in a competitive international environment. This includes consideration of how royalties interact with cost structures, investment decisions, and the broader regulatory burden faced by operators.
Certainty and sovereign risk	The degree to which the regime provides stable, predictable, and secure terms such that investors can be assured of the impositions their operations will be subject to over the life of a permit.
Transparency	The clarity, accessibility, and consistency of royalty rules, rates, and administrative processes. This includes whether rates are set in legislation or subject to discretion, and the ease with which operators and stakeholders can understand, comply with, and audit the regime.
Reasonableness in international context	The extent to which the design and level of royalties are broadly aligned with international norms and practices. This involves assessing whether New Zealand's regime is consistent with comparable jurisdictions in terms of structure, rates, and overall approach, while recognising differences in context.
Change in effective government take over time	The extent to which changes to the royalty regime have altered the overall government take (including royalties, taxes and levies) relative to previous settings. This criterion assesses whether reforms have materially improved the Crown's financial return compared to earlier regimes and historical benchmarks.

Assessment of current regime

Table 10 sets out the assessment against the fairness criteria set out in Table 9 for the current regime.

Overall, the current regime is consistent with the fairness criterion and likely to provide a "fair financial return" to the Crown because it is designed to ensure the Crown receives some return from the outset of production through an AVR, while also enabling upside sharing when profitability is high through the accounting profits royalty under the "higher of AVR or APR" structure. At the same time, when royalties are considered in isolation, there may be scope to change royalty rates because the regime's royalty rates are at the lower end of the international range and the extent of upside capture is limited (including due to the relatively low APR rate and the absence of profit-based mechanisms for aggregates), suggesting the overall settings are conservative in capturing value for the Crown relative to comparable jurisdictions. New Zealand's effective government take, while comparable with jurisdictions such as Québec and Chile, sits lower than Australia.

This indicates that, while the regime is fair in design, it may not fully capture economic rents during periods of high profitability.

Table 10 – Assessment of current regime against fairness criteria

Fairness criterion	Assessment
Crown always receives some return	The current regime broadly satisfies this criterion. The use of an AVR ensures that the Crown receives a payment from the outset of production regardless of profitability, consistent with the Minerals Programme interpretation that the Crown should receive some return from all mining activity. This is supported in practice by effective government take analysis, which shows positive royalty contributions across all mineral categories. However, the existence of revenue thresholds and de minimis provisions (e.g., net sales revenue thresholds and minimum royalty payments) means that very small operations may not always contribute, indicating that the "always" condition holds in a practical rather than absolute sense.
Upside sharing when profits are high	The regime meets this criterion for Tier 1 minerals through the inclusion of an accounting profits royalty (APR), which allows the Crown to participate in periods of high profitability. The "higher of AVR or APR" structure ensures that royalties increase when profits rise, providing some degree of progressivity. However, the relatively low APR rate (10%) and the absence of profit-based mechanisms for aggregates mean that the extent of upside capture is limited compared to more progressive international regimes. As such, the criterion is met in design, but only partially in strength.
Balance with investment incentives and competitiveness	Evidence suggests the regime is broadly well-balanced in this regard. Royalty rates are low by international standards, and stakeholder evidence indicates that royalties are generally not a primary barrier to investment. Instead, investment decisions are more strongly influenced by broader regulatory and cost factors, with royalties treated as a secondary consideration. This suggests the regime places significant weight on maintaining competitiveness and supporting investment. However, this balance may come at the expense of maximising the Crown's share of economic rents, particularly given the relatively low royalty rates observed.
Certainty and sovereign risk	The current regime performs strongly against this criterion. The use of legislated royalty rates and the continued reliance on grandfathering for existing permits supports a high degree of predictability and reduces perceived sovereign risk. Stakeholder feedback emphasises that stability of royalty settings over the life of permits is critical for investment decisions. While the coexistence of multiple regimes (due to grandfathering) introduces some administrative complexity, it reinforces investor confidence by avoiding retrospective changes to fiscal terms.
Transparency	The regime is highly transparent in its core design. Royalty rates, calculation methodologies, and payment obligations are clearly specified in legislation and supporting guidance, contrasting with jurisdictions where rates are set on a discretionary or negotiated basis. However, transparency is weaker when considering the broader regulatory framework, where multiple overlapping fees, levies, and administrative requirements create complexity. In addition, aspects such as determining the extent of the Crown mineral estate and navigating multiple regulatory processes reduce overall system transparency from an operator perspective.

Reasonableness in international context	The regime is broadly consistent with international practice in structure, particularly through its use of a hybrid AVR/APR model for higher-value minerals and unit-based royalties for aggregates. However, royalty rates (both AVR and APR) are at the lower end of the international range. While this supports competitiveness, it suggests the regime may be conservative in capturing value for the Crown relative to comparable jurisdictions. The regime therefore sits within the "mainstream" internationally but is positioned toward the lower bound of government take and royalty intensity.
Change in effective government take over time	The 2013 regime has increased the Crown's effective take relative to earlier regimes, reflecting the introduction of higher rates and a more structured hybrid design. For metallic minerals, effective take has increased relative to pre-2013 settings, and for coal, the reintroduction of hybrid royalties has shifted a greater share of returns to royalties rather than legacy instruments. Overall effective government take under the 2013 regime is estimated at roughly 34% to 54% of imputed profits depending on mineral type, indicating an improvement from earlier estimates (~33%) cited in the 2012 Cabinet paper. However, much of current production still operates under grandfathered regimes, meaning the full impact of the 2013 regime is only partially reflected in aggregate outcomes.

Assessment of grandfathered regimes (1996 and 2008)

Table 11 sets out the assessment against the fairness criteria set out above for grandfathered regimes. Assessing grandfathered regimes is essential considering 97% of the Crown's mineral royalty revenue in 2025 was derived from legacy regimes. Of total royalty revenue in 2025, 4% came from permits under the 2008 regime, while 85% came from permits subject to the 1996 regime, highlighting that the 1996 regime remains the primary source of royalty revenue.[59]

The 1996 regime is consistent with the fairness criterion and likely provides a "fair financial return" in the sense that it broadly ensures the Crown receives some return once production commences through an AVR of 1%. It also enables some upside sharing through the inclusion of an APR of 5%. The regime delivers more certainty through the introduction of standardised rates and performs relatively strongly on transparency due to limited reliance on discretion. However, rates sit at the lower end compared to international jurisdictions, and results in relatively low government take, consistent with earlier estimates (circa 33% of profits) suggesting there is scope to lift returns relative to international benchmarks.

It is more questionable whether the 2008 regime provides a "fair financial return". The 2008 regime similarly ensured the Crown received some return from the outset of production through reliance on AVR and unit-based royalties, however, it does not provide effective upside sharing when profits are high because of the removal of an APR mechanism, making the Crown's share largely insensitive to profitability. While the regime supports investment incentives through relatively low rates and simple structures, the shift toward AVR and unit-based royalties increases potential distortionary effects on marginal projects. In addition, although statutory rates for specified minerals supported certainty, minister-determined AVRs reduced predictability and made transparency weaker than a fully legislated system. Overall, when royalties are considered in isolation, the regime did not materially increase effective government take relative to earlier settings because low rates persisted and profit-linked capture was absent. Given this, and similar to the 1996 regime, there is scope to lift returns relative to international benchmarks.

[59] Calculations based on data provided by MBIE.

Table 11 – Assessment of 1996 and 2008 grandfathered regimes against fairness criteria

Fairness criterion	1996 regime assessment	2008 regime assessment
Crown always receive some return	The 1996 regime broadly met this criterion through the use of an AVR (1%) which ensured a minimum payment once production commenced. However, the relatively low rate limited the magnitude of early-life returns to the Crown, reducing the practical strength of this criterion.	The 2008 regime also met this criterion through reliance on AVR and unit-based royalties, which ensured payments from the outset of production. The greater use of output- and value-based instruments strengthened the certainty of early revenue compared to the 1996 regime.
Upside sharing when profits are high	The 1996 regime partially met this criterion through the presence of an APR (5%), which enabled some sharing of upside returns. However, the low APR rate limited the Crown's participation in highly profitable projects, indicating weak progressivity.	The 2008 regime did not meet this criterion effectively. The removal of the APR meant that the Crown's share of returns was largely insensitive to profitability, reducing alignment with economic rent capture principles and limiting upside participation. Administrative simplicity took priority over upside sharing.
Balance with investment incentives and competitiveness	The 1996 regime strongly favoured investment incentives. The low royalty rates and simple hybrid structure indicate a clear emphasis on encouraging sector development and maintaining competitiveness, potentially at the expense of Crown revenue. For the first statutorily set mineral royalties, this is somewhat understandable but not aligned with this criterion.	The 2008 regime also supported investment incentives through relatively low AVR rates and simple structures. However, the shift toward AVR and unit-based royalties increased potential distortionary effects on marginal projects, suggesting a somewhat less balanced outcome than the 1996 regime despite maintaining competitiveness.
Certainty and sovereign risk	The 1996 regime provided a moderate level of certainty, with standardised rates introduced for the first time and applied consistently across minerals. This represented an improvement from the earlier permit-based approach, supporting predictability for investors.	The 2008 regime provided certainty in its statutory rates for specified minerals, but introduced discretion through Minister-determined AVR rates for certain minerals. This reduced predictability for some operators and introduced a degree of sovereign risk relative to fully legislated systems.
Transparency	The 1996 regime performed relatively strongly on transparency. Royalty rates were standardised and clearly specified, with limited reliance on discretion, making the regime straightforward to understand and administer.	Transparency was weaker under the 2008 regime. While many rates were specified, the introduction of Ministerial discretion for certain minerals reduced clarity and consistency, making the regime less transparent overall.
Reasonableness in international context	The 1996 regime sat at the low end of international practice in terms of royalty	The 2008 regime remained broadly consistent with international practice in

	rates. While the hybrid structure aligns with international norms, the low AVR and APR rates suggest the regime placed greater emphasis on competitiveness than on achieving returns comparable to other jurisdictions.	terms of structure (use of AVR and unit-based royalties), but rates remained low relative to other jurisdictions. The absence of a profit-based mechanism made it less aligned with more progressive systems observed internationally.
Change in effective government take over time	The 1996 regime resulted in relatively low government take, reflecting low royalty rates and limited capture of upside returns. This aligns with earlier estimates (circa 33% of profits) indicating scope to increase Crown returns relative to international benchmarks.	The 2008 regime did not materially increase effective government take relative to earlier settings, as low rates persisted and profit-linked capture was removed. As a result, overall Crown returns remained low compared to international comparators until the 2013 reforms.

Summary of fairness assessment across regimes

Table 12 summarises the assessment of current and grandfathered regimes against the fairness criteria, drawing on the detailed analysis presented above.

Table 12 – Summary of fairness assessment across regimes

Fairness criterion	1996 regime	2008 regime	Current regime (2013)
Crown always receive some return	Meets	Meets	Meets
Upside sharing when profits are high	Partially meets	Does not meet	Partially meets
Balance with investment incentives and competitiveness	Meets	Partially meets	Meets
Certainty and sovereign risk	Meets	Partially meets	Meets
Transparency	Meets	Partially meets	Meets
Reasonableness in international context	Low	Low	Low
Change in effective government take over time	Low	No material improvement	Improved

Insights from stakeholder engagement

An insight from stakeholder engagement is that royalty rates play only a minor role in investment decisions for mines and quarries. Stakeholders generally regard royalty rates as acceptable, noting their alignment with commercial royalty rates in applicable cases, and their nature as accepted costs of doing business in the extractives sector. What industry participants noted as having a greater impact on their investment decisions, capital risk, and costs, were the range of other fees, levies, taxes, and processes that the minerals sector is subject to. A further consideration was regulatory factors such as intellectual property rights from exploration and prospecting activities, with a perceived issue being that the intellectual property generated through prospecting and exploration by mining companies in some cases goes to the Crown, such as when a mining permit is not ultimately granted after exploration.

Fairness and transparency should be considered at the level of the entire mineral regulatory environment rather than royalty rates in isolation. Greater coordination of fees, rules, and levies across all of government to ensure fairness and transparency would contribute to a fairer system overall and likely support the Government's ability to justify changes to the royalty settings.

Further insights from stakeholder engagement can be found in Appendix 4 and Appendix 5.

Case study: Adaptive Royalty Agreements[60]

A paper by Nwaila et al. (2026) introduced a theoretical framework for an Adaptive Royalty Agreement (ARA). Adaptive royalty agreements bring together existing royalty settings into a framework that achieves government revenue stability considering variable commodity prices whilst maintaining competitive conditions for market participants in the mineral sector.

Adaptive royalty agreements are an emerging class of mineral fiscal instruments designed to respond dynamically to changing economic conditions, particularly commodity price volatility and cost uncertainty. Unlike traditional "static" royalties such as fixed ad valorem and accounting profit royalties, adaptive regimes automatically adjust key parameters (e.g., rates, thresholds, or bases) in response to observable indicators like prices, margins, or volatility metrics. Adaptive royalty agreements combine multiple components within a single rule-based architecture.

The architecture integrates four core elements:

1. A minimum ad valorem floor to ensure revenue in low-profit periods and provide early-year certainty.
2. An escalator tied to observable metrics such as profitability or commodity prices to capture gains during market booms.
3. A buffering mechanism to cushion mining operations against industry downturns when commodity prices fall below a set floor.
4. A rules-based distribution component (e.g., community dividend).

Adaptive royalty regimes are grounded in the economic theory of resource rent capture and optimal taxation under uncertainty. In principle, governments seek to maximise their share of "economic rent" which is the surplus generated after covering costs while maintaining investment incentives. ARA addresses the trade-offs faced by conventional instruments with ad valorem royalties providing early and stable revenue but are insensitive to profitability, and profit-based taxes being more efficient in theory but administratively complex and vulnerable to avoidance. This reflects broader fiscal principles:

- Risk sharing between the state and investors to balance government returns on mineral assets and private returns on risk capital.
- Ensuring government revenues across the project lifecycle.
- Neutrality, minimising distortions to investment decisions.

Relevance of the Adaptive Royalty Framework

The adaptive royalty framework provides insights into the responsiveness of the current regime to volatile markets for minerals. While the current hybrid model incorporates elements consistent with adaptive design, particularly the combination of minimum and profit-linked returns, it remains fundamentally static. It does not include mechanisms that automatically adjust to changes in commodity prices, cost structures, or profitability over time. This limits its ability to fully capture upside during periods of high prices or to moderate impacts during downturns. Introducing more dynamic, rule-based features could improve alignment with adaptive principles and enhance both efficiency and perceived fairness.

Overall analytical statements and conclusions

Overall, New Zealand's minerals royalty regime is assessed as broadly fair and relatively non-distortionary, but conservative in capturing value for the Crown relative to international benchmarks.

New Zealand's current minerals royalty regime demonstrates strong alignment with the principles of fairness and transparency. It applies a hybrid structure for metallic minerals and coal that combines the advantages of both AVR and APR, alongside unit-based royalties for aggregates that reflect the low-margin, high-volume characteristics of that segment.

New Zealand's royalty rates tend to be consistently at the lower end of those observed internationally, though this is somewhat counterbalanced by a comparatively high corporate tax rate. While this contributes to overall government take, royalties remain the primary instrument for capturing value from mineral resources, and relatively low royalty rates therefore limit the Crown's direct share of resource rents. Stakeholder evidence indicates industry participants broadly regard the current royalty settings as fair and an accepted cost of doing business, including noting comparability to private commercial royalty rates in relevant cases.

The current hybrid design reflects the interpretation of fairness set out in the Minerals Programme by striking a practical balance between a guaranteed return to the Crown and participation in project upside. The AVR component provides a stable and predictable revenue stream from the outset of production, while the APR component allows the Crown to share in higher returns when projects are profitable and therefore better aligns with rent capture principles. Grandfathering contributes to investment stability by supporting predictability and managing sovereign risk, although the relatively low rates applied under the current framework suggest that the balance has historically placed greater weight on competitiveness and investment incentives than on maximising the Crown's share of resource rents.

From an international perspective, New Zealand's regime structure is consistent with widely adopted approaches in comparable jurisdictions, and it performs strongly on transparency through legislated rates, thresholds, and clear calculation methodologies. This contrasts with less transparent systems where rates may be determined on a discretionary or case-by-case basis.

The evolution of the regime reinforces these observations. Earlier settings placed greater emphasis on encouraging investment through low rates and limited upside capture, while subsequent settings increased reliance on revenue-based instruments and included ministerial discretion that reduced transparency and weakened alignment with profit-based rent capture principles. The current regime represents a more structured approach, improving consistency and the balance between revenue generation and investment incentives.

New Zealand's effective government take was compared with estimates of effective take in British Columbia, Québec, Chile, New South Wales, Western Australia, Victoria and Queensland. Given the lack of actual royalty data to derive a more definitive or certain estimate of the effective take in international jurisdictions, our assessment primarily hinged on the royalty *rates* between jurisdictions rather than effective take. However, New Zealand is comparable with the Canadian provinces and Chile, while likely sitting below Australia.

However, the current regime may be considered conservative overall. Low relative rates, limited responsiveness to changing market conditions, and reliance on unit-based royalties for aggregates point to scope for refinement. This could potentially include more adaptive features, as highlighted above under the Adaptive Royalty Framework case study, and targeted adjustments that could lift the Crown's share of value without undermining investment incentives. Section 4 builds on these observations by exploring a range of illustrative scenarios that examine how the regime could be adjusted to better capture value while maintaining investment attractiveness.

[60] Nwaila, G. T. et al (2026, May)

Section 4: Alternative royalty regimes

Alternative royalty regimes

Scenario modelling shows that alternative royalty settings involve clear trade-offs. Higher rates can increase Crown revenue but reduce sector output and wider economic activity, while lower rates support competitiveness and investment incentives but deliver weaker royalty returns. Most scenarios suggest modest impacts on sector output and wider economic activity.

Overview of section

This section presents scenario modelling of alternative royalty regimes, leveraging Computable General Equilibrium (CGE) modelling to assess the economy-wide impacts of alternative minerals royalty settings in New Zealand. It sets out the scenarios and approach to modelling, scenario results and trade-offs the results imply.

Economic impact of alternative royalty regimes

An economic impact assessment considers how policy changes can impact various sectors and how these changes flow through the rest of the economy. That is, an economic impact assessment is an economy-wide modelling exercise. Because industries, households, government, and trade are connected through supply chains and markets, impacts in the minerals sector can have indirect impacts on other sectors, regional activity, wages, prices, and macroeconomic outcomes such as GDP and employment.

This economy-wide perspective differs from the analysis presented earlier in the report. Sections 2 and 3 focused on the structure and performance of the current and legacy regimes, including effective government take, fairness and transparency considerations, and how New Zealand compares with selected international jurisdictions. The CGE modelling complements that analysis by providing an indication of the broader economic consequences and trade-offs associated with moving from current settings to alternative royalty settings.

The modelling results should be interpreted as scenario comparisons rather than forecasts. They are driven by a set of assumptions and parameter choices that draw on the evidence base established elsewhere in the report (including the baseline characterisation of current settings and the scenario design). As such, the CGE results are not additive to other quantitative outputs in this report, instead, they provide complementary information on the expected direction, relative magnitude, and timing of economy-wide impacts under alternative royalty regimes.

Sector coverage

For modelling purposes, the minerals sector is represented using three broad groupings (coal, metallic minerals, and aggregates and quarry materials), reflecting differences in production characteristics and exposure to commodity markets.

Assessment for aggregates

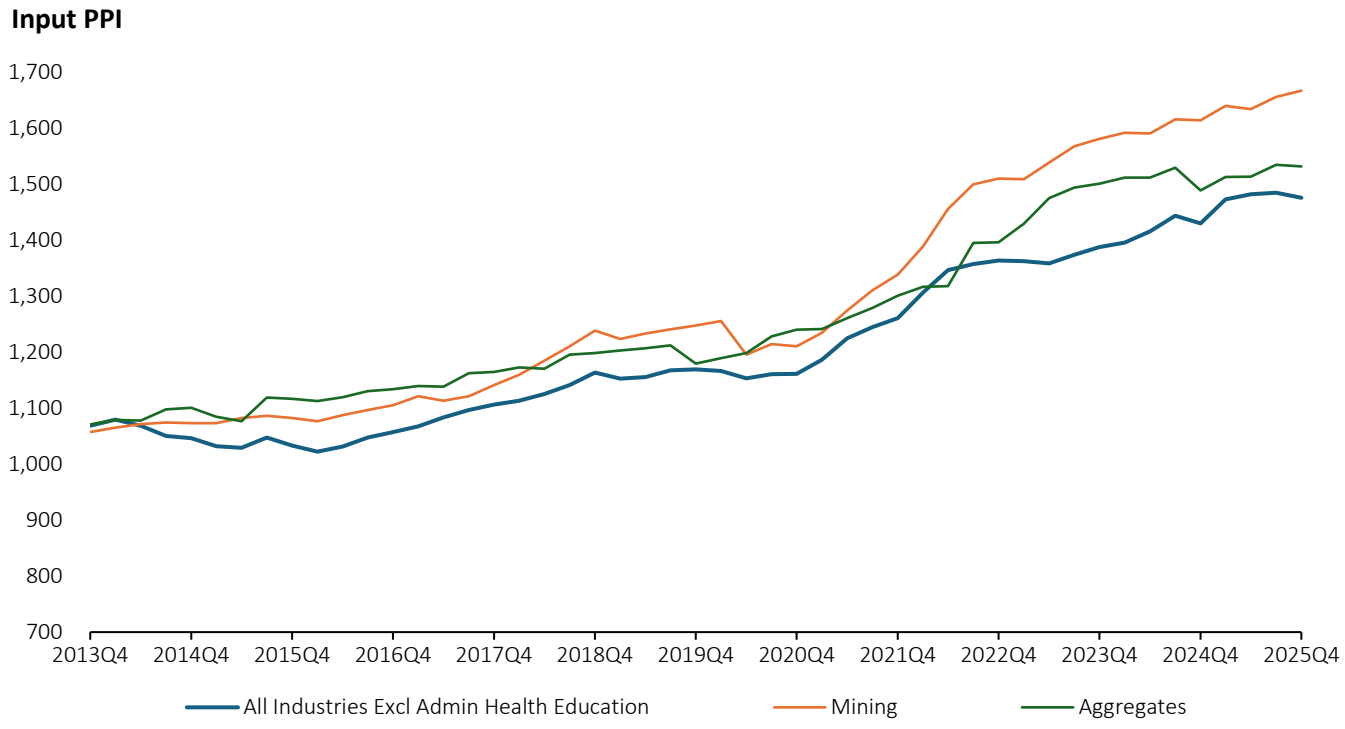
The CGE modelling and scenarios have not considered any changes to royalty rates for **aggregates**. The review of other jurisdictions suggests that unit-based royalties are widely applied. However, adjustment of royalty rates for aggregates through indexation with input PPI could be refined. In particular, indexation could occur through input PPI

specific to aggregates or mining. Comparison of the movement of input PPI indices and its implication for aggregate royalty rates are presented in Figure 6.

Aggregates face royalties determined in Schedule 2 of the Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013, which are unit royalties levied per tonne or cubic metre of aggregate extracted.[61]

The rates, set in 2013 as per the Regulations, are to be escalated by the PPI as specified in the *All industries excluding administration, health, and education index* published by Stats NZ, or any equivalent measure certified by the Government Statistician as being equivalent to that index.[62] The *All industries excluding administration, health and education index* only has values in the Input PPI dataset, not Output PPI, implying that it is the Input PPI that must be used for calculating the correct royalty escalation rate for Schedule 2 minerals.[63, 64] Input PPI indices measure the change in costs of production (excluding labour costs) at the relevant industry aggregation.[65]

Figure 6 – Input Producer Price Index (Base = December 2010)



Source: Stats NZ, Deloitte Access Economics

Figure 6 above shows a deviation between the *All industries excluding administration, health and education* index and the *Aggregates* index. The *Aggregates* index has consistently increased at a faster rate than the *All industries excluding administration, health and education* index. The difference between the *All industries excluding administration, health and education* index and the *Aggregates* index from 2013 to 2025 suggests that royalty rate adjustments could have been larger by using the *Aggregates* index, implying greater royalty revenue for the Crown.

[61] New Zealand Government (2025, September 25)
[62] New Zealand Government (2025, September 25)
[63] Stats NZ (n.d.-a)
[64] Stats NZ (n.d.-b)
[65] Reserve Bank of New Zealand (2026, May 19)

More generally, escalation of royalty rates for aggregates by an index that is more specifically aligned to the sector would ensure royalty rates would grow generally in line with input cost escalation being faced by the aggregates sector. This would mean:

- Royalty rates do not impose a disproportionate burden on aggregate firms' operations and profitability when general input cost inflation exceeds aggregates sector specific input inflation.
- The Crown would not forego potential returns for aggregates resources it owns for the benefit of New Zealand when general input cost inflation is lower than aggregates sector specific input inflation.

Transition of permits to alternative royalty settings

A range of alternative royalty settings have been modelled, and these are described in more detail below. Several of these scenarios assume that alternative royalty settings and rates only apply to new permits and that grandfathering arrangements continue to exist.

Specifically, under current grandfathering arrangements, royalty rates that were applicable when either a prospecting or exploration permit was granted continue to be applicable if and when a prospecting or exploration permit transitions to a mining permit. In addition, the time it takes for a prospecting or exploration permit to transition to a mining permit and commence production such that a royalty is payable, differs by mineral type.

To take into account current grandfathering arrangements and differing development timeframes for minerals, a cohort modelling approach was applied to provide a view of the proportion of new permits that would be subject to alternative royalty settings over time.[66] Specifically:

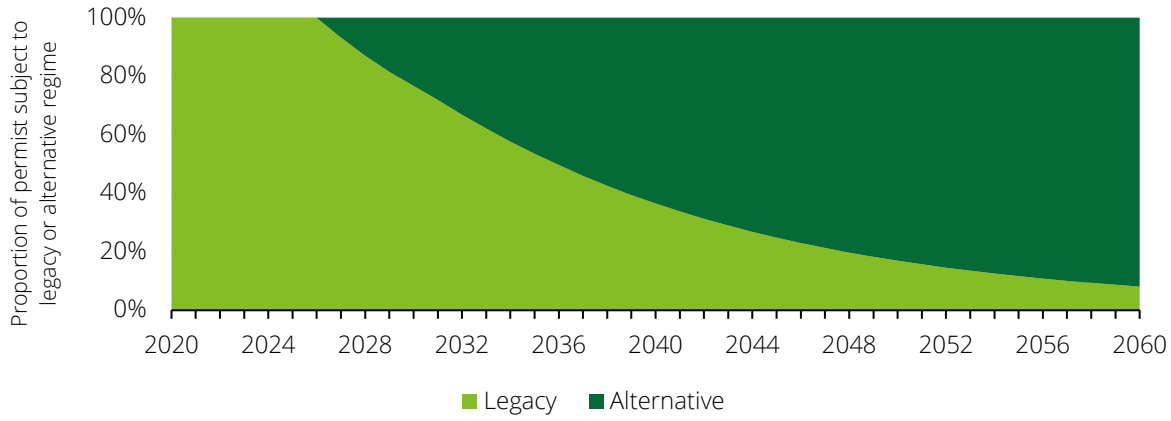
- The number of new prospecting, exploration and mining permits was projected. This was done using current data on the number of new prospecting, exploration and mining permits, shares of prospecting, exploration and mining permits across coal and metallic minerals and rates of progression from prospecting to exploration permits and exploration to mining permits respectively.
- New prospecting or exploration permits were tagged either "legacy" or "alternative", depending on which year they were assumed to be granted. This determined whether that permit carries a legacy royalty regime with it or rates associated with an alternative regime. Legacy permits are assumed to have a royalty which is a blend of 2013 and pre-2013 regime rates.
- For new prospecting, exploration or mining permits, it was assumed it takes 4, 23 and 28 years for alluvial metallic minerals, coal and hard rock metallic minerals, respectively, to generate production such that it would pay royalties.
- Permits subject to alternative regimes were assumed to gradually replace permits subject to legacy rates at an implied turnover rate of 4.8%, which is based on the ratio of new mining permits per year over the current stock of permits.
- Royalties for metallic minerals are assumed to primarily arise from hard rock permits.[67]

The results of the cohort modelling approach are set out in Figures 7 to 9 below. Given current grandfathering arrangements and development timeframes, it is projected that a relatively small proportion of permits would be subject to alternative rates associated with an alternative regime for coal and hard rock metallic minerals.

[66] Data to inform this modelling approach was provided by MBIE.

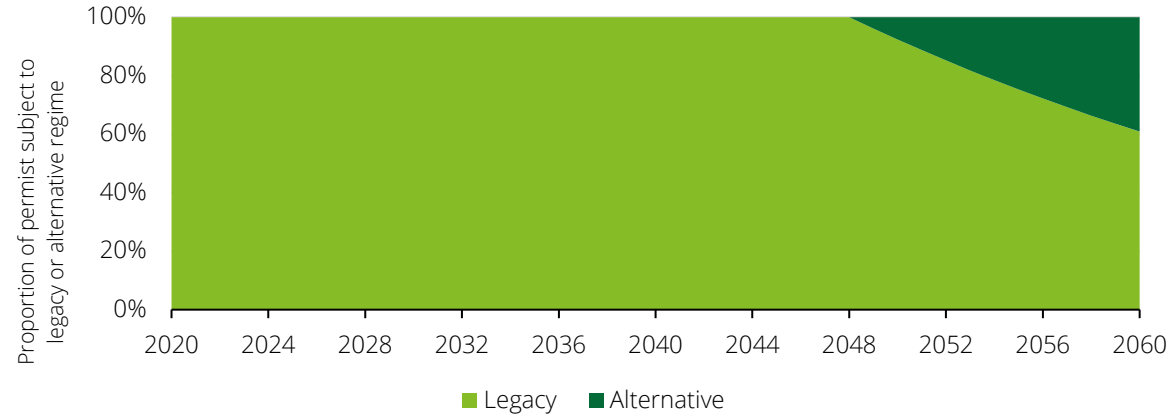
[67] This is based on gold production statistics in 2024, where ~85% of production in 2024 came from Macraes and Waihi sites and are likely to have exceeded the $200,000 net sales revenue required to pay royalties.

Figure 7 – Projected proportion of permits subject to legacy and alternative regimes – Alluvial metallic minerals



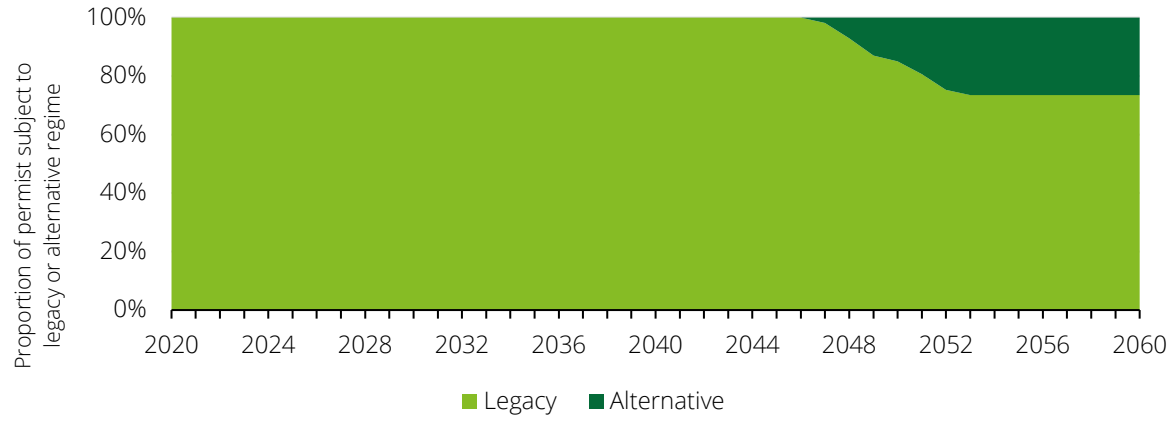
Source: Deloitte Access Economics estimates based on MBIE data

Figure 8 – Projected proportion of permits subject to legacy and alternative regimes – Coal



Source: Deloitte Access Economics estimates based on MBIE data

Figure 9 – Projected proportion of permits subject to legacy and alternative regimes – Hard rock metallic minerals



Source: Deloitte Access Economics estimates based on MBIE data

Scenarios

To estimate the economic impact of alternative royalty regimes in New Zealand, we consider multiple scenarios for the future of the New Zealand economy:

- A baseline scenario, where the status-quo royalty regime remains in place.
- Alternative regime scenarios, where new royalty regimes come into effect.

This section sets out the scenarios modelled to test alternative royalty settings against the baseline scenario. Scenarios are designed as "what-if" comparisons to illustrate the direction and relative magnitude of economy-wide impacts from different royalty parameters and transition pathways, rather than forecasts of future sector activity or Crown revenue. The difference between the baseline scenario and an alternative regime scenario (e.g., the deviation in GDP levels) forms the expected economic impact of an alternative regime.

Where impacts are presented in net present value terms, this has been done using an 8% discount rate (consistent with Treasury guidance for commercial proposals).

Baseline

Scenario modelling compares a baseline with a set of alternative royalty regimes. The baseline assumes the existing hybrid royalty framework for Tier 1 and Tier 2 coal and metallic minerals continues, with AVR rates of 1% to 2% (depending on mineral and threshold) and an APR of 10%. Additionally, we assume that permits currently on legacy royalty regimes continue to be grandfathered.

Alternative regime scenarios

The alternative regime scenarios draw upon the considerations for providing a "fair financial return to the Crown for its minerals" under the Crown Minerals Act 1991. In particular, they draw on the balance between ensuring the Crown receives an appropriate financial return from the extraction of publicly owned resources, while maintaining international competitiveness to attract investment and foster economic growth. The alternative royalty scenarios consider scenarios that place different weights on Crown revenue generation and the need to promote responsible and sustainable resource development. For each alternative regime, we consider its impact both with and without existing grandfathering arrangements.

Table 13 provides further details on the scenarios and the underlying rationale for their choice.

Table 13 – Scenario descriptions and rationale

Scenario		Description and rationale
AVR 1% to 2% / APR 10% - Transition of legacy permits to 2013 regime from 2032		This scenario considers a transition of grandfathered or legacy rates to the AVR and APR rates under the current 2013 regime from 2032.
AVR 0.5% / APR 8%	Only new permits	This scenario places more focus on resource development incentives. It envisages AVR and APR rates that are lower than the current regime and adopt the lowest of the AVR and APR rates found from the review of other jurisdictions. These lower rates are applied to metallic minerals and coal from 2027 and only on new prospecting, exploration or mining permits granted after 2027.
	All permits from 2032	This scenario is the same as the above scenario. However, from 2032, the alternative AVR and APR rates are applied to both new and existing permits.
AVR 4.4% / APR 0%	Only new permits	This scenario places emphasis on certainty of revenue, with a higher AVR rate compared to the current regime. The scenario draws upon the royalty regime largely found in the Australian states, which tend to favour AVRs for metallic minerals and coal. 4.4% AVR is the mid-point value of the AVR rates reviewed for Australian jurisdictions and is applied to metallic minerals and coal and only on new prospecting, exploration or mining permits granted after 2027.
	All permits from 2032	This scenario is the same as the above scenario. However, from 2032, the alternative AVR rates are applied to both new and existing permits.
AVR 10% / APR 15%	Only new permits	This scenario places greater emphasis on the certainty of government revenue and uses a AVR of 10% and APR of 15%. Under this scenario, the Crown receives a higher relative tax take when relevant minerals are sold and when mining operations are profitable. The 10% AVR and 15% APR represent rates that are at the higher end (but not maximum) of both AVR and APR rates found in the review of royalty rates from other jurisdictions. These higher rates are applied to metallic minerals and coal from 2027 and only on new prospecting, exploration or mining permits granted after 2027.
	All permits from 2032	This scenario is the same as the above scenario. However, from 2032, the alternative AVR and APR rates are applied to both new and existing permits.

Statutory corporate income tax rates are held constant across all scenarios.

Each scenario is modelled in the Deloitte Access Economics Regional General Equilibrium Model (DAE-RGEM) by applying a set of policy "shocks" that represent the change in royalty parameters and their incidence over time. Further detail on the model and the shocks used is provided in Appendix 2.

Results are reported as deviations from the baseline to highlight trade-offs between alternative royalty designs.

Legacy regimes and grandfathering arrangements

As described earlier in this report, grandfathering arrangements can help promote investment certainty when new regimes are established by allowing existing operations, whether in mining or earlier exploration phases, to remain

on older regimes. However, the trade-off is that these arrangements limit the effectiveness of a new royalty regime, as it can take decades for minerals production to roll onto permits issued under the new regime. Analysis presented earlier in this report found that the effective take across all Crown mineral operations sits below the rates established in the 2013 regime for this reason.

For the purposes of our scenario modelling, we have therefore considered each alternative regime with and without grandfathering arrangements. These are intended to support decision making by providing a better understanding of how grandfathering arrangements play out over time.

Across all scenario types, a further distinction is made between applying changes to new permits only or to all permits over time. Scenarios limited to new permits represent a more gradual transition that preserves investment certainty and minimises sovereign risk, while broader application represents a more comprehensive shift with larger and more immediate economic impacts.

Scenario results

Baselines and caveats for direct AVR and APR take calculations

Based on the royalty take in 2025 and estimates on the proportional make up the AVR and APR components of this take, the AVR and APR components for the coal sector were approximately $1.2 million and $0.6 million respectively. For metallic minerals, the AVR and APR take were approximately $8.0 and $4.0 million respectively. While there is reliable data on total royalty take (AVR and APR combined), we had to use estimated proportions to allocate this take between AVR and APR. Therefore, the split between AVR and APR splits should be interpreted as indicative only.

The projected AVR and APR take for the coal and metallic minerals sector under the baseline scenario are projected out to 2060, based on sector specific production trends and broader growth of the New Zealand economy, assuming no significant policy changes. The projected AVR and APR takes under the baseline scenario are:

- $2.4 million and $1.0 million per annum by 2060 for the coal sector, in undiscounted terms. This amounts to $19.5 million and $8.8 million in NPV terms between 2026 and 2060.
- $13.3 million and $5.9 million per annum by 2060 for the metallic minerals sector, in undiscounted terms. This amounts to $118.3 million and $55.0 million in NPV terms between 2026 and 2060.

We note that royalty take can be relatively volatile (we understand that interim royalty take for gold in 2025 has risen approximately $11 million, reflecting the impact of commodity prices). For this reason, it is the relative deviation from baseline under each scenario, rather than the absolute value itself, which is more insightful.

The scenario results below provide the estimated changes in direct AVR and APR takes for the coal and metallic minerals sector under the different scenarios. The estimated changes are derived from the estimated difference in growth rates for taxes on output and taxes on payments to endowments, including capital, for the coal and metallic minerals sector in the DAE-RGEM.

It is worth noting that CGE models are not designed as fiscal models, and that royalties are implemented within broader tax wedges in the database. As such, it can be difficult to isolate reported revenue impacts to a specific tax or royalty.

It should be noted that the estimated changes in direct AVR and APR takes for the coal and minerals sector under the different scenarios are indicative and directional. It is recommended that further explicit fiscal modelling be undertaken for more precise estimates of changes in direct AVR and APR takes under the scenarios modelled.

Metallic minerals and coal

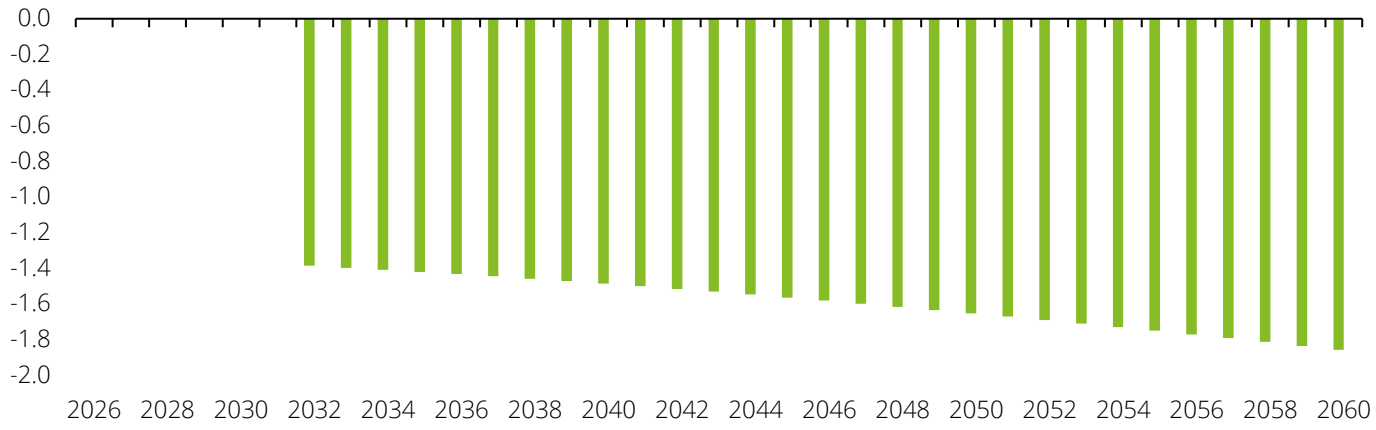
AVR 1% to 2% or APR 10% - Transition of legacy permits to 2013 regime from 2032

This scenario provides a view on the impact of transitioning all legacy royalty arrangements to the current regime from 2032 onwards. Currently, the long-lived nature of permits means that at any point in time multiple different royalty regimes are effectively in place, with the vast majority of royalty revenue coming from permits on older regimes. Given New Zealand's older regimes generally have lower rates than the current regime, this leads to a lower effective royalty rate.

Industry impact

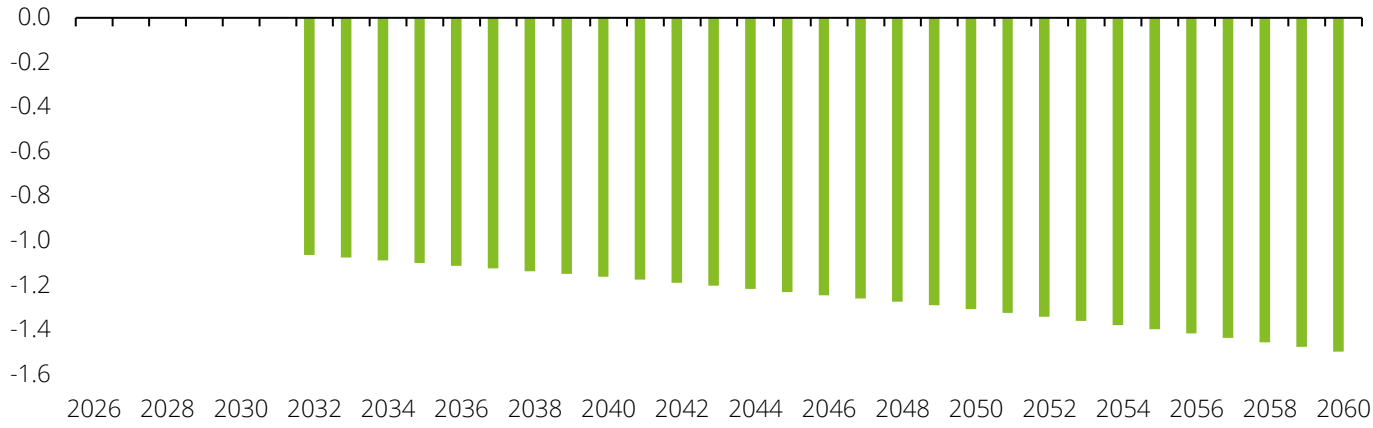
As transitioning legacy permits to the 2013 regime results in an increase in effective royalty rates across the sector, the associated impacts on activity in the minerals sector are expected to be negative. While the impacts of this scenario are expected to be negative, the overall impacts are relatively small. Coal sector output is expected to be lower by 0.25% at its lowest point, while metallic minerals output is expected to be lower by 0.08% at its lowest point.

Figure 10 – Annual coal production/output deviations under a 2032 transition (2026 NZD, millions)



Source: Deloitte Access Economics

Figure 11 – Annual metallic minerals production/output deviations under a 2032 transition (2026 NZD, millions)



Source: Deloitte Access Economics

Economic impact

Table 14 – Economic impact results for transitioning legacy permits scenarioshows the expected economic impact of transitioning legacy permits to the 2013 regime. A small negative economic impact is expected, reflecting an increase in effective royalty rates. Correspondingly, a positive Crown revenue impact is expected. This reflects a trade-off in which higher effective royalty rates increase the Crown's share of returns but could modestly reduce sector output and broader economic activity.

Table 14 – Economic impact results for transitioning legacy permits scenario

Economic impact (deviations from the status-quo)	All permits from 2032
GDP (8% NPV 2027-2060, $m 2026 NZD)	-$25.7m
Employment (Peak negative FTE deviation)	-61 FTE
Metallic minerals output (8% NPV 2027-2060, $m 2026 NZD)	-$9.0m
Coal output (8% NPV 2027-2060, $m 2026 NZD)	-$11.5m
Direct AVR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$6.7m
Direct APR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$16.8m
Total royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$23.5m
Economy wide tax impact (8% NPV 2027-2060, $m 2026 NZD, including royalties)	$23.6m

Source: Deloitte Access Economics

On average, annual revenue from royalties between 2027 and 2060 is expected to be $2.8m higher than it would otherwise be under the status-quo.

AVR 0.5% or APR 8% - New permits only / All permits from 2032

The 0.5% AVR or 8% APR scenario represents a conservative royalty regime aimed at boosting the international competitiveness and development incentives of New Zealand's mineral industries. While this alternative regime improves international competitiveness relative to the 2013 regime, the overall impact of the change envisaged in this scenario is relatively muted because a significant number of permits have older royalty arrangements.

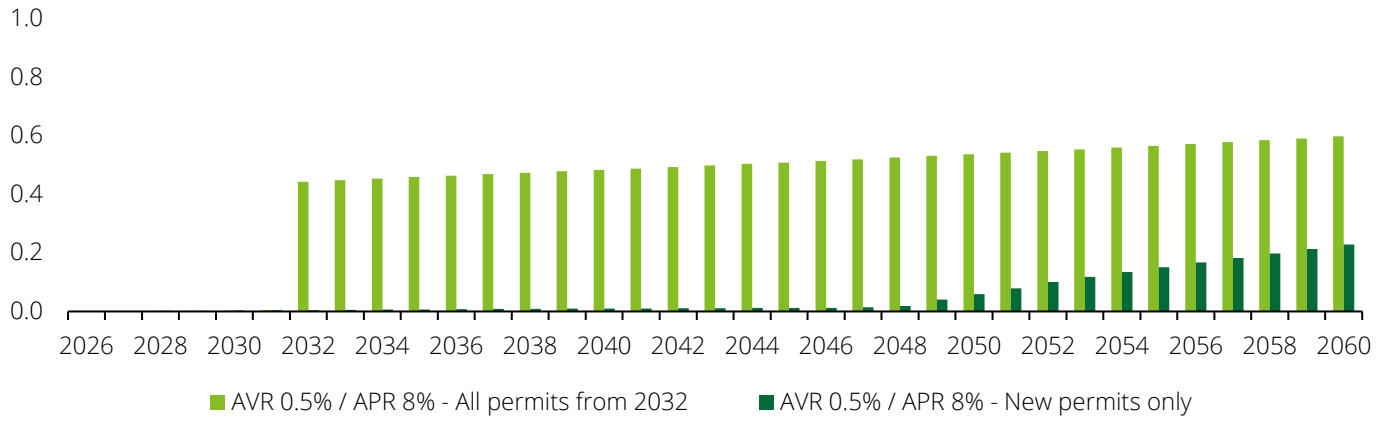
Industry impact

Shifting to a 0.5% AVR or 8% APR regime could impact activity in New Zealand's minerals industries. In net present value (NPV) terms, New Zealand's Coal industry could increase coal production by $0.2m between 2027 and 2060 assuming existing royalty rates are grandfathered.

If all permits were to transition to a new regime by 2032, this value rises to $3.7m. Likewise, Metallic Minerals output could increase by $5.1m in NPV terms relative to the baseline scenario for new permits only, or by $35.1m assuming all permits transition by 2032.

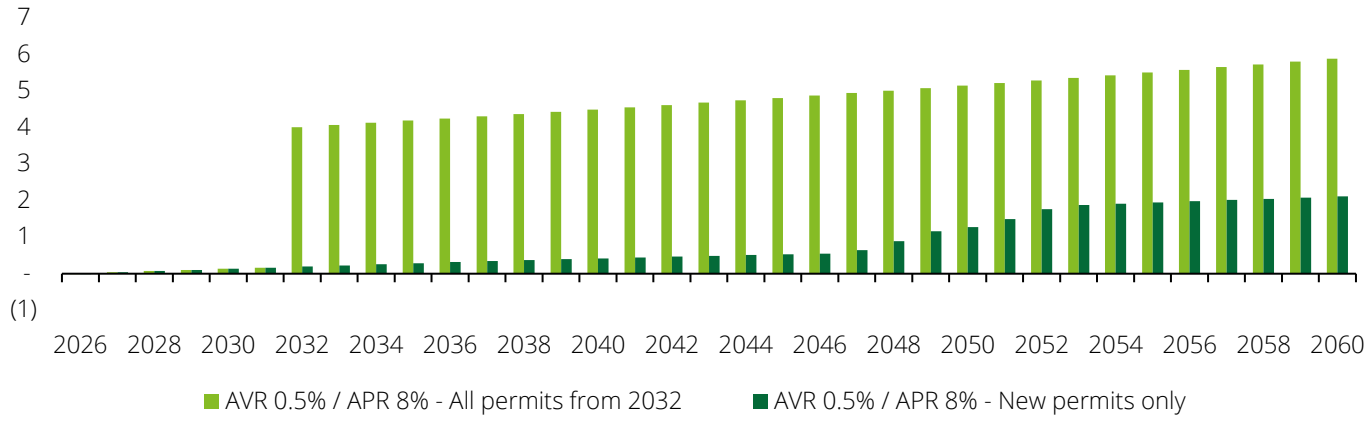
Overall, the magnitude of the impacts of a 0.5% AVR or 8% APR regime is relatively muted, given the relatively low royalty rates that exist under the baseline scenario. At its peak, coal output increases by 0.03% if only new permits are transitioned to such a regime, or 0.09% if all permits are transitioned from 2032. Likewise, metallic minerals output increases by 0.11% if only new permits are transitioned to such a regime, or 0.32% if all permits are transitioned from 2032.

Figure 12 – Annual coal production/output deviations under a 0.5% AVR or 8% APR regime (2026 NZD, millions)



Source: Deloitte Access Economics

Figure 13 – Annual metallic minerals production/output deviations under a 0.5% AVR or 8% APR regime (2026 NZD, millions)



Source: Deloitte Access Economics

Economic impact

Table 15 shows the expected economic impact of an AVR 0.5% or APR 8% regime, presented as deviations including GDP, industry output, and industry employment measured by full-time equivalent (FTE) counts from the baseline scenario. While the lower royalty rates generate slightly less Crown revenue than other assessed regimes, both directly through the royalties and in aggregate, they have only a modest impact on economic growth. This reflects a trade-off in which lower royalty rates support sector output and economic activity but could reduce the Crown's share of returns from mineral development.

Table 15 – Economic impact results for 0.5% AVR or 8% APR scenario

Economic impact (deviations from the status-quo)	New permits only	All permits from 2032
GDP (8% NPV 2027-2060, $m 2026 NZD)	$4.2m	$47.1m
Employment (Peak positive FTE deviation)	+13 FTE	+74 FTE
Metallic minerals output (8% NPV 2027-2060, $m 2026 NZD)	$5.1m	$35.1m
Coal output (8% NPV 2027-2060, $m 2026 NZD)	$0.2m	$3.7m
Direct AVR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	-$7.6m	-$52.0m
Direct APR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$0.6m	$4.3m
Total royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	-$6.9m	-$47.6m
Economy wide tax impact (8% NPV 2027-2060, $m 2026 NZD, including royalties)	$3.0m	-$14.3m

Source: Deloitte Access Economics

The royalty take impact, in NPV terms between 2027 and 2060, is estimated at -$6.9m, or -$47.6m if the alternative regime applies to all permits by 2032, relative to the baseline scenario. On average, annual royalty revenue from minerals is $1.2m lower than the baseline, or $5.8m lower if the alternative regime applies to all permits by 2032.

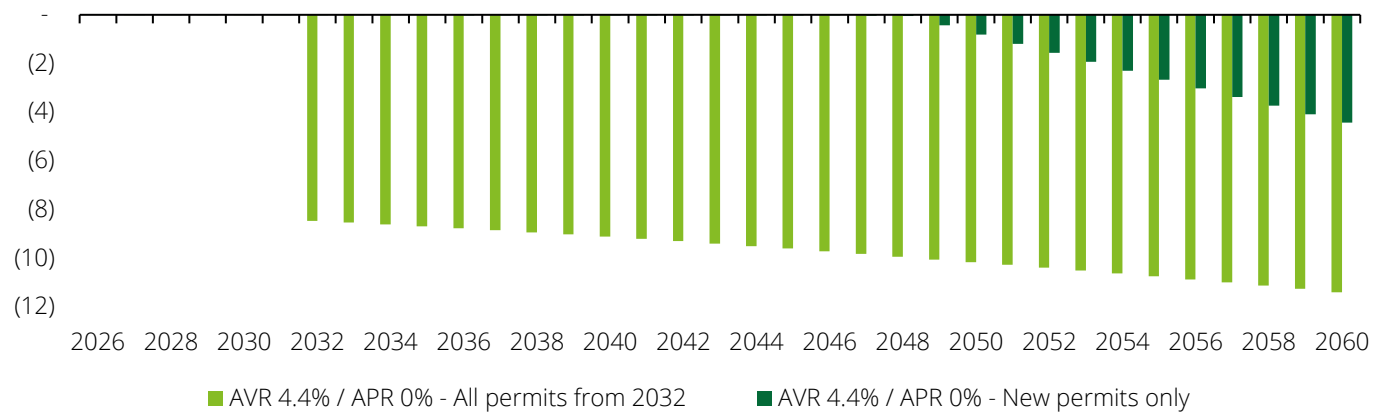
AVR 4.4% and APR 0% - New permits only / All permits from 2032

The 4.4% AVR and 0% APR scenario represents moving away from a hybrid regime in favour of a flat AVR-style royalty at a rate that represents the mid-point of AVR rates found in Australia state jurisdictions. Such a royalty regime has the advantage of creating a reliable revenue stream but also means the Crown does not share in any profits from favourable commodity price movements and profitable mining operations.

Industry impact

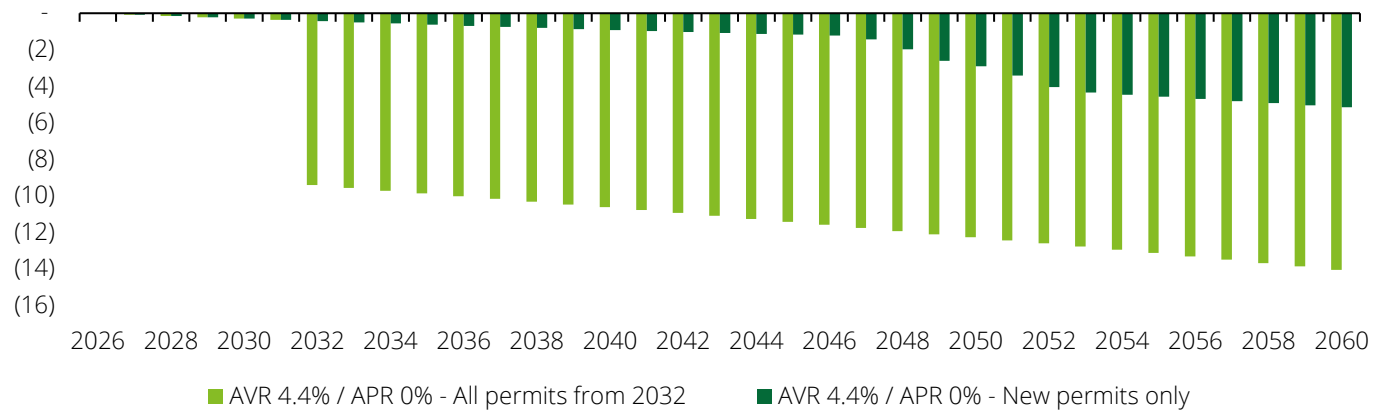
Shifting to a 4.4% AVR-only regime results in an effective increase in royalties across the minerals sector, leading to small negative output deviations relative to the baseline scenario. Similar to other scenarios presented so far, the negative output effects are relatively small for both the coal and minerals sectors. Coal output is expected to contract by 0.6% at its lowest point if only new permits are transitioned to a such a royalty regime, or 1.7% if all permits are transition from 2032. Metallic minerals output is expected to contract by 0.3% at its lowest point if only new permits are transitioned to such a royalty regime, or 0.8% if all permits are transitioned from 2032.

Figure 14 – Annual coal production/output deviations under a 4.4% AVR regime (2026 NZD, millions)



Source: Deloitte Access Economics

Figure 15 – Annual metallic minerals production/output deviations under a 4.4% AVR regime (2026 NZD, millions)



Source: Deloitte Access Economics

Economic impact

Table 16 shows the expected economic impact of an AVR of 4.4% and no APR, presented as deviations from the baseline scenario. While the higher royalty rates generally generate more Crown revenue, the components of this vary between coal and metallic minerals due to existing royalty arrangement settings. Similar to the scenarios discussed so far, the economy wide GDP impacts are modest, with a small negative economic impact expected. This reflects a trade-off in which greater reliance on value-based royalties increases revenue certainty and Crown returns but could modestly reduce sector output and broader economic activity.

Table 16 – Economic impact results for 4.4% AVR scenario

Economic impact (deviations from the status-quo)	New permits only	All permits from 2032
GDP (8% NPV 2027-2060, $m 2026 NZD)	-$19.7m	-$177.0m
Employment (Peak negative FTE deviation)	-149 FTE	-371 FTE
Metallic minerals output (8% NPV 2027-2060, $m 2026 NZD)	-$11.6m	-$83.0m
Coal output (8% NPV 2027-2060, $m 2026 NZD)	-$3.1m	-$70.4m
Direct AVR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$23.2m	$184.9m
Direct APR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	-$9.2m	-$41.3m
Total royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$14.0m	$143.6m
Economy wide tax impact (8% NPV 2027-2060, $m 2026 NZD, including royalties)	$13.5m	$155.8m

Source: Deloitte Access Economics

On average, annual royalty revenue between 2027 and 2060 is expected to be $2.6m higher than the baseline under this regime, or $17.5m if all permits transition to the new regime by 2032.

AVR 10% and APR 15% - New permits only / All permits from 2032

The 10% AVR and 15% APR scenario represents a relatively aggressive royalty regime aimed at generating a significant return for the Crown. While this regime generates significant Crown revenue from royalties, it also has a larger negative economic impact.

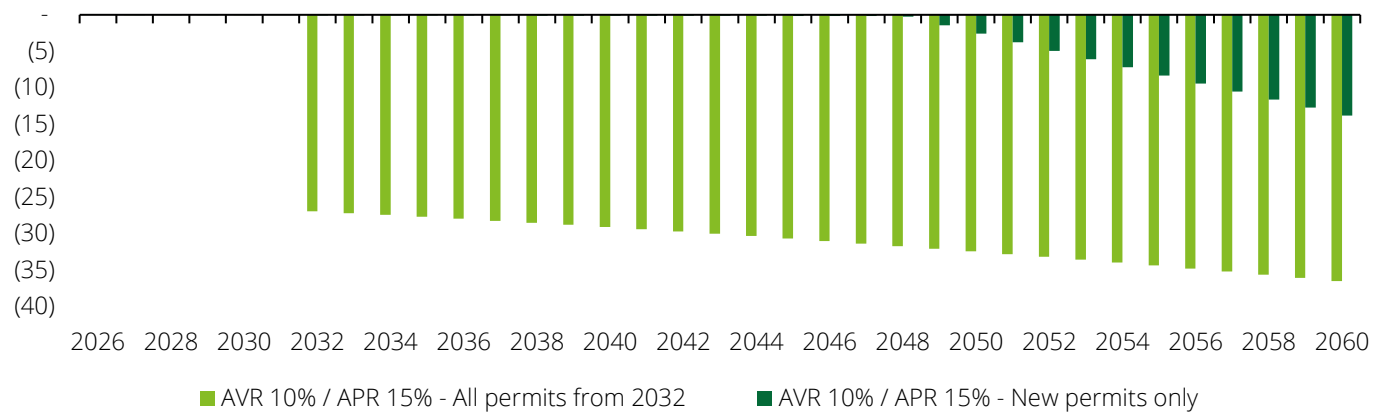
Industry impact

Shifting to an AVR 10% and APR 15% regime could impact activity in New Zealand's minerals industries. In NPV terms, New Zealand's coal industry could produce $10m less between 2027 and 2060 assuming existing royalty rates are grandfathered. If all permits were to transition to a new regime by 2032, this value rises to $224m. Likewise, metallic minerals output could decline by $60m in NPV terms relative to the baseline, or by $415m assuming all permits transition by 2032.

These deviations in industry activity reflect the large royalty rates imposed under this scenario relative to other jurisdictions. The large AVR rate erodes the competitiveness of New Zealand's mineral exports in overseas markets, especially in the shorter-term, while the higher APR rate disincentivises longer-term investment and expansion in the industry.

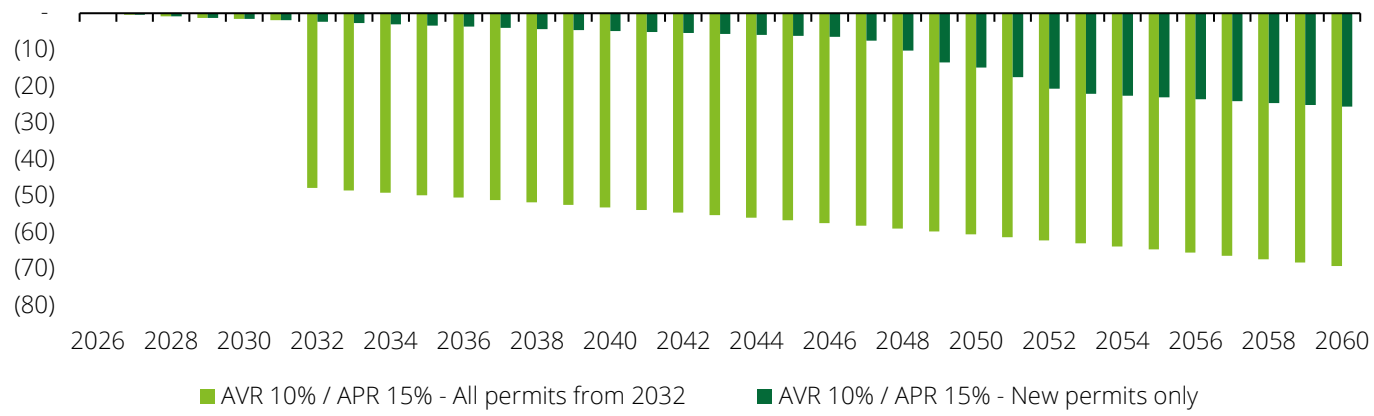
In contrast to the other scenarios modelled, the relative impacts of an AVR 10% and APR 15% regime are larger. Coal sector output declines by 1.8% when the regime is applied to new permits only, rising to a 5.5% decline when applied to all permits from 2032. Metallic minerals output shows a similar pattern, decreasing by 1.4% under a new-permits-only application and by 3.8% when extended to all permits from 2032.

Figure 16 – Annual coal production/output deviations under a 10% AVR and 15% APR regime (2026 NZD, millions)



Source: Deloitte Access Economics

Figure 17 – Annual metallic minerals production/output deviations under a 10% AVR and 15% APR regime (2026 NZD, millions)



Source: Deloitte Access Economics

Economic impact

Table 17 shows the expected economic impact of an AVR 10% and APR 15% regime, presented as deviations from the baseline scenario. While the high royalty rates generate more Crown revenue than other assessed regimes, both directly through the royalties and in aggregate, they also have the largest impact on economic growth. This reflects a trade-off in which higher royalty rates increase the Crown's share of returns but could materially reduce sector output and broader economic activity.

Table 17 – Economic impact results for 10% AVR and 15% APR scenario

Economic impact (deviations from the status-quo)	New permits only	All permits from 2032
GDP (8% NPV 2027-2060, $m 2026 NZD)	-$87.0m	-$823.5m
Employment (Peak negative FTE deviation)	-548 FTE	-1,548 FTE

Metallic minerals output (8% NPV 2027-2060, $m 2026 NZD)	-$60.2m	-$415.3m
Coal output (8% NPV 2027-2060, $m 2026 NZD)	-$10.0m	-$224.3m
Direct AVR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$69.1m	$544.3m
Direct APR royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$28.8m	$213.9m
Total royalty take impact (8% NPV 2027-2060, $m 2026 NZD)	$97.9m	$758.2m
Economy wide tax impact (8% NPV 2027-2060, $m 2026 NZD, including royalties)	$39.4m	$465.5m

Source: Deloitte Access Economics

The royalty revenue impact, in NPV terms between 2027 and 2060, is estimated at $97.9m, or $758.2m if the alternative regime applies to all permits by 2032, relative to the baseline scenario. On average, annual royalty revenue from minerals is $17.4m higher than the baseline, or $93.8m if the alternative regime applies to all permits by 2032.

However, the estimated economy-wide tax impact of the alternative regime is lower, at $39.4m in NPV terms, or $465.5m if the alternative regime applies to all permits from 2032. This reflects that while additional revenue is raised directly through the royalties, the negative economic impact of the higher rates leads to less tax revenue elsewhere in the economy (e.g., in pay as you earn (PAYE) tax or corporate income tax), partially offsetting the Crown revenue impact.

Summary of scenario modelling results

What the scenarios represent

The scenarios conducted in this work represent a spectrum of policy settings that differ in how they affect investment incentives, international competitiveness, Crown revenue, and administrative simplicity.

Scenarios with lower royalty rates place greater emphasis on supporting sector activity by reducing the cost burden on operators. These settings are designed to enhance competitiveness and encourage investment but result in lower returns to the Crown.

Scenarios with higher royalty rates place greater emphasis on increasing the Crown's share of value from mineral development. These settings strengthen rent capture and increase Crown revenue but may reduce investment incentives and sector output relative to current settings.

Scenarios based on ad valorem royalties alone prioritise simplicity, administrative efficiency, and revenue certainty. While they provide stable returns from the outset of production, they limit the Crown's ability to participate in upside when profitability is high.

Scenarios that transition legacy permits to the current regime focus on improving policy consistency and gradually increasing the Crown's effective return without changing headline rates. These settings reduce fragmentation arising from grandfathered regimes while maintaining investment certainty.

Table 18 below summarises the total royalty take impacts across the scenarios modelled, relative to the baseline scenario. It provides a simple comparison of how alternative royalty settings affect aggregate royalty returns to the Crown over the period 2027 to 2060.

Table 18 – Summary of royalty take impacts

Variable (Annual value in 2060, in real 2026 NZD)		Gross Domestic Product	Coal production	Metallic minerals production	Direct AVR royalty take	Direct APR royalty take
Baseline		$725,397.8m	$747.8m	$1,835.7m	$15.7m	$6.9m
Deviation from baseline						
AVR 1% to 2% / APR 10% - Transition of legacy permits to 2013 regime from 2032		-$7.3m	-$1.9m	-$1.5m	+$1.2m	+$2.8m
AVR 0.5% / APR 8%	Only new permits	+$1.3m	+$0.2m	+$2.1m	-$3.3m	+$0.3m
	All permits from 2032	+$8.8m	+$0.6m	+$5.9m	-$8.9m	+$0.1m
AVR 4.4% / APR 0%	Only new permits	-$16.0m	-$4.4m	-$5.2m	+$12.0m	-$4.3m
	All permits from 2032	-$40.9m	-$11.4m	-$14.0m	+$32.3m	-$6.9m
AVR 10% / APR 15%	Only new permits	-$61.7m	-$13.8m	-$25.6m	+$34.6m	+$13.2m
	All permits from 2032	-$184.0m	-$36.4m	-$69.1m	+$94.7m	+$35.8m

Source: Deloitte Access Economics
Note: Aggregates are excluded because alternative aggregate royalty scenarios were not modelled.

Table 19 below summarises the key results of the scenario modelling, highlighting the direction and relative magnitude of impacts on Crown revenue, sector output, and broader economic activity. It is intended to provide a high-level comparison across scenarios, drawing out the core trade-offs between revenue generation and investment outcomes identified in the detailed analysis above.

Table 19 – Summary of overall scenario modelling results

Scenario		Crown revenue	Sector output	GDP / economic activity	Key trade-off
AVR 1% to 2% / APR 10% - Transition of legacy permits to 2013 regime from 2032		↑ Moderate increase	↓ Small decrease	↓ Small decrease	Improves consistency and revenue, with modest economic costs
AVR 0.5% / APR 8%	Only new permits	↓ Lower	↑ Slight increase	↑ Slight increase	Supports investment and competitiveness, reduces Crown returns
	All permits from 2032	↓ ↓ Lower	↑ Slight increase	↑ Slight increase	Strengthens investment incentives further, reduces royalty returns more materially
4.4% / APR 0%	Only new permits	↑ Moderate increase	↓ Small to moderate decrease	↓ Small to moderate decrease	Increases revenue certainty, but reduces upside sharing and output
	All permits from 2032	↑ ↑ Large increase	↓ Moderate decrease	↓ Moderate decrease	Increases revenue certainty and returns, reduces upside sharing and has large economic costs
AVR 10% / APR 15%	Only new permits	↑ ↑ Large increase	↓ ↓ Large decrease	↓ ↓ Large decrease	Significantly increases Crown revenue, but materially reduces activity and investment
	All permits from 2032	↑ ↑ ↑ Very large increase	↓ ↓ ↓ Very large decrease	↓ ↓ ↓ Very large decrease	Maximises Crown revenue, but may impose a large negative impact on sector output and broader economic activity

Note: Aggregates are excluded because alternative aggregate royalty scenarios were not modelled.

Section 5: Policy considerations

Policy considerations

Policy assessment highlights that no single royalty scenario dominates across all criteria, with each option having distinct trade-offs between Crown returns, investment incentives, and administrative simplicity. Higher-rate scenarios strengthen Crown revenue and upside participation but introduce greater distortion and sovereign risk, while lower-rate or status quo settings prioritise competitiveness, neutrality, and certainty at the expense of fiscal capture.

Overview of section

This section draws on the results of the scenario modelling in the previous section, as well as insights from our assessment of effective government take and whether the Crown is receiving a "fair financial return" and provides an assessment of policy considerations relevant to determining optimal policy settings going forward.

Criteria used for policy considerations

The overarching purpose of the Crown Minerals Act 1991 is to provide a "fair financial return" to the Crown for its minerals. Given this, policy considerations relevant to determining optimal policy settings going forward draw on the criteria previously used to assess whether the Crown is receiving a "fair financial return" under current and legacy royalty regimes. Additional criteria have also been considered, including the potential for distortionary outcomes from alternative royalty regime scenarios and the likely burden associated with administering alternative royalty regimes. These criteria are set out in Table 20 below.

Table 20 – Policy assessment criteria

Criteria	Definition
Crown always receives some return	The extent to which the royalty regime scenario ensures that the Crown collects a return on its mineral estate on behalf of the New Zealand public in all circumstances, including early in the project lifecycle. This reflects the principle that, as owner of a non-renewable resource, the Crown should receive a guaranteed minimum return.
Upside sharing when profits are high	The degree to which the royalty regime scenarios enable the Crown to share in higher returns when mining projects are profitable. This reflects a risk and reward sharing principle in which the Crown's return should reflect market conditions facing the mineral extraction sector.
Reasonableness in international context	The extent to which the design and level of royalties are broadly aligned with international norms and practices. This involves assessing whether New Zealand's regime is consistent with comparable jurisdictions in terms of structure, rates, and overall approach, while recognising differences in context.
Certainty and sovereign risk	The degree to which the royalty regime scenarios provide stable, predictable, and secure terms such that investors can be assured of the impositions their operations will be subject to over the life of a permit.

Neutrality / non-distortionary	The extent to which the royalty regime scenario is likely to impact efficient existing production and prospective investment decisions at a sector level.
Transparency and administrative simplicity	The clarity, accessibility, and consistency of royalty rules, rates, and administrative burden associated with enforcement and monitoring. This includes whether rates are set in legislation or subject to discretion, and the ease with which operators and stakeholders can understand, comply with, and audit the regime.

Assessment of scenario results against policy considerations

There is no single scenario performs strongest across all policy criteria.

The preferred scenario depends on the relative weight placed on Crown revenue, investment certainty, economic neutrality, international comparability, and administrative simplicity. In broad terms, scenarios that increase royalty rates improve the Crown's financial return and upside participation but generally do so at the expense of neutrality and investment incentives. Conversely, scenarios with lower rates reduce distortionary impacts and support investment competitiveness, but provide a weaker return to the Crown:

- If the primary policy objective is to ensure the Crown always receives some return, scenarios with higher AVR rates perform most strongly. The AVR 10% / APR 15% scenarios score highest against this criterion because they materially increase the direct AVR royalty take relative to the baseline, particularly where the regime applies to all permits from 2032. However, this comes with clear trade-offs, including greater distortionary impacts and weaker alignment with investment competitiveness.
- If the most important criterion is maximising upside sharing when profits are high, hybrid scenarios with an APR component are preferred. In particular, the AVR 10% / APR 15% scenarios provide the strongest upside participation because they increase the Crown's share and capture economic rents when mining operations are highly profitable. By contrast, the AVR 4.4% / APR 0% scenarios perform poorly against this criterion because they remove the APR component and therefore do not provide profit-linked upside sharing.
- If certainty and sovereign risk are prioritised, scenarios that apply only to new permits are preferred. These scenarios preserve existing and grandfathered royalty terms, thereby supporting investor certainty and reducing perceived sovereign risk. By contrast, scenarios that transition all permits to new rates from 2032 weaken certainty, even though the delayed transition partly mitigates the impact.
- If the policy priority is neutrality and minimising distortionary impacts, the AVR 0.5% / APR 8% scenarios perform most strongly. Lower royalty rates reduce the extent to which the regime affects production and investment decisions, with the economic impact modelling indicating stronger sector output outcomes relative to higher-rate scenarios. The AVR 10% / APR 15% scenarios sit at the other end of the spectrum, with the largest distortionary impacts, particularly if applied to all permits from 2032.
- If transparency and administrative simplicity are given the greatest weight, the AVR 4.4% / APR 0% – All permits from 2032 scenario is strongest. An AVR-only regime is simpler to administer than a hybrid AVR/APR regime and transitioning all permits to a single royalty structure would reduce the complexity associated with multiple legacy and grandfathered arrangements. However, this simplicity is achieved by removing profit-linked upside sharing, which weakens the Crown's ability to participate in highly profitable projects.
- If reasonableness in an international context is prioritised, the assessment is more nuanced. The AVR 0.5% / APR 8% scenarios sit at the low end compared with similar jurisdictions, while the AVR 10% / APR 15% scenarios sit at the high end. The AVR 4.4% / APR 0% scenarios provide a middle-ground AVR setting, but do not include a profit-based component. The current 2013 settings, or transition of legacy permits to those settings, therefore, remain relatively conservative but more balanced than either the lowest- or highest-rate alternatives.

Table 21 provides a high-level summary of how the modelled royalty scenarios perform against the policy criteria. The assessment groups scenarios with similar royalty settings to highlight the key trade-offs between Crown return, upside sharing, international reasonableness, certainty, neutrality, and administrative simplicity. The detailed scenario-by-scenario assessment is provided in Appendix 7.

Table 21 – Summary of scenario policy assessment

Legend: ○ Low | ◔ Low-Medium | ◑ Medium | ◕ Medium-High | ● High

(Higher rating = better meets the criteria)

Scenario grouping	Crown always receives some return	Upside sharing when profits are high	Reasonableness in international context	Certainty and sovereign risk	Neutrality / non-distortionary	Transparency and administrative simplicity	Summary
Lower-rate hybrid (AVR 0.5% or APR 8%)	◔ Provides a minimum return through AVR, but at a lower level than the status quo and other modelled scenarios.	◔ - ◑ Retains an APR component, but lower APR settings limit the Crown's upside participation.	● Sits at the low end of international comparators, supporting international competitiveness	◔ - ● Certainty is strongest where applied to new permits only, but weaker if all permits transition from 2032.	◕ Lower rates are less distortionary and support sector output relative to higher-rate scenarios.	◔ - ◑ The hybrid structure increases complexity, though a full transition from 2032 would reduce multiple-regime complexity over time.	Supports neutrality, competitiveness and sector output, but weakens Crown royalty returns.
Transition legacy permits to 2013 settings	◑ Increases the Crown's minimum return by moving legacy permits onto current AVR settings.	◑ Provides some upside sharing through APR, but at a moderate level relative to higher-rate hybrid scenarios.	◕ Remains relatively conservative compared with similar jurisdictions while improving alignment with current settings.	◔ Transitioning legacy permits reduces certainty, although delayed implementation partly mitigates sovereign risk.	◑ More distortionary than lower-rate settings, but less distortionary than the higher AVR-only and high-rate hybrid scenarios.	◑ Improves consistency over time, but retains hybrid-regime complexity.	Improves consistency and Crown revenue relative to legacy settings, with modest economic and certainty costs.
Higher AVR-only (AVR 4.4% and APR 0%)	◕ Provides a stronger production-based return through a higher AVR.	○ Does not provide profit-linked upside sharing because there is no APR component.	◑ Sits around the middle of the international AVR range considered in the report.	◔ - ● Certainty is strongest where applied to new permits only, but weaker where existing permits	◔ The higher AVR is more distortionary than lower-rate hybrid settings, despite the absence of APR.	◑ - ● An AVR-only regime is simpler, particularly where all permits transition to a single structure from 2032.	Increases revenue certainty and administrative simplicity, but removes profit-linked upside sharing and is more

				transition from 2032.			distortionary than lower-rate settings.
High-rate hybrid (AVR 10% and APR 15%)	● Provides the strongest minimum Crown return among the modelled scenarios.	● Provides the strongest upside sharing through a materially higher APR.	○ Sits at the high end compared with similar jurisdictions, reducing international reasonableness.	◔ - ● Certainty is strongest where applied to new permits only, but weaker where all permits transition from 2032.	○ Has the greatest distortionary impact due to the combination of high AVR and APR settings.	◔ - ◑ The hybrid structure increases administrative complexity, although full transition would reduce multiple-regime complexity over time.	Maximises Crown return and upside sharing, but has the greatest distortionary impact and is least favourable for competitiveness.

Overall, the assessment in Table 21 indicates that the choice of scenario is ultimately a question of policy weighting.

Potential next steps

Further work could improve the evidence base in areas that were outside the scope of this review, or that were necessarily assessed at a high level. In particular, this review has identified several areas where more detailed analysis would support any future policy decisions:

- Further stakeholder engagement with industry participants, iwi, regional stakeholders, and relevant government agencies to test the practicality of potential reforms, likely behavioural responses, and perceptions of investment certainty and sovereign risk.
- Fiscal modelling, including explicit fiscal modelling of Crown revenue impacts and, where useful, more disaggregated or project level modelling to test behavioural responses, project viability, and differences across mineral types and project characteristics.
- Assessment of wider system interactions, including how royalty reforms would interact with the broader regulatory and cost environment, given the evidence in this review that cumulative settings, not royalties alone, influence investment decisions.

These next steps would help move from a broad assessment of trade-offs toward more targeted policy design, while ensuring that any future changes are supported by an even stronger evidence base and are capable of being implemented in a practical and credible way.

Appendices

Appendix 1: Data sources and limitations

Data sources

The analysis draws on a combination of administrative, industry, and publicly available data sources. Key sources include:

- MBIE administrative data – MBIE provided administrative data, including information on royalty payments, permit types, mineral production, and legacy and current royalty regimes. This data forms the primary basis for calculating effective government take.
- International benchmarking data – International benchmarking sources, including publicly available mining tax and royalty data from comparable jurisdictions, used to contextualise New Zealand's settings.
- Industry questionnaire – A targeted questionnaire was distributed to 290 industry participants holding a permit for mining and exploration. It covered questions on current and legacy royalty settings, perceptions of fairness and competitiveness, prevailing market conditions, and potential behavioural responses to changes in royalty rates. The questionnaire informed subsequent interviews, and together these inputs were used to support the qualitative assessment of potential behavioural impacts.
- Industry interviews – Six targeted interviews were conducted with selected industry participants. The interviews explored themes reflected in the interview questions, including current and legacy royalty settings, perceptions of fairness and competitiveness, prevailing market conditions affecting investment and production decisions, and likely behavioural responses to changes in royalty rates. Interview insights were used alongside questionnaire responses to support the qualitative assessment of potential behavioural impacts.
- Legislative and policy documents – Policy and regulatory documents, including the Crown Minerals Act 1991, the Minerals Programme for Minerals (Excluding Petroleum) 2025, and the Minerals Strategy to 2040, which provide the policy framework for the assessment. A full list is included in bibliography
- Other open-source desktop research – Publicly available information sourced from government publications, official statistics, academic literature, and reputable international reports. This material was used to provide background context, support international comparisons, and inform interpretation of findings alongside primary data sources.

Overall research limitations

The analysis is subject to limitations that should be considered when interpreting the results:

- Data availability and consistency – Historical data coverage varies across minerals, permit types, and time periods, particularly for older or grandfathered regimes. In some cases, data limitations reflect changes in reporting requirements over time or incomplete coverage for certain activities. Where required, assumptions have been applied to ensure consistency across the analysis. Appendix 2 outlines detailed modelling assumptions.
- Non-royalty charges outside MBIE's remit – The scope of the review does not enable detailed analysis of other non-MBIE charges that may be material for some operators. These include as an example, DOC access and concession fees, local authority charges, waste disposal levies, and other regulatory or compliance related fees that apply alongside royalties. While these charges were raised by industry as important in some cases, they fall outside the scope of this review. Understanding how these costs interact with royalties and other taxes could be a useful area for further research, particularly when considering the cumulative cost of regulation and its implications for investment and project viability.
- International comparability – Differences in legal frameworks, tax systems, and resource or mineral characteristics across jurisdictions mean that international benchmarks provide context rather than precise

comparators. Key sources of variation include differences in corporate income tax rates, the treatment of capital expenditure and depreciation, the presence of profit-based (i.e. APR) versus production-based royalties (i.e. AVR), the use of subsides and incentives, and how royalties fit alongside other taxes that mining companies pay. Jurisdictions also differ in geological conditions, cost structures, commodity mix, and regulatory and environmental requirements, which affect project economics and the effective government take. As a result, international comparisons are used to inform relative positioning and broad policy trade-offs rather than to identify directly transferable settings. Further the purposes of international comparisons, we have not undertaken purchasing power parity adjustments.

- Behavioural and dynamic effects – While scenario analysis incorporates qualitative and, where possible, quantitative consideration of behavioural responses, longer-term investment and production responses are inherently uncertain and depend on factors beyond royalty settings alone, including global market conditions and geological outcomes.

These limitations do not detract from the overall findings of the review but highlight the importance of interpreting results as indicative and policy informing rather than predictive.

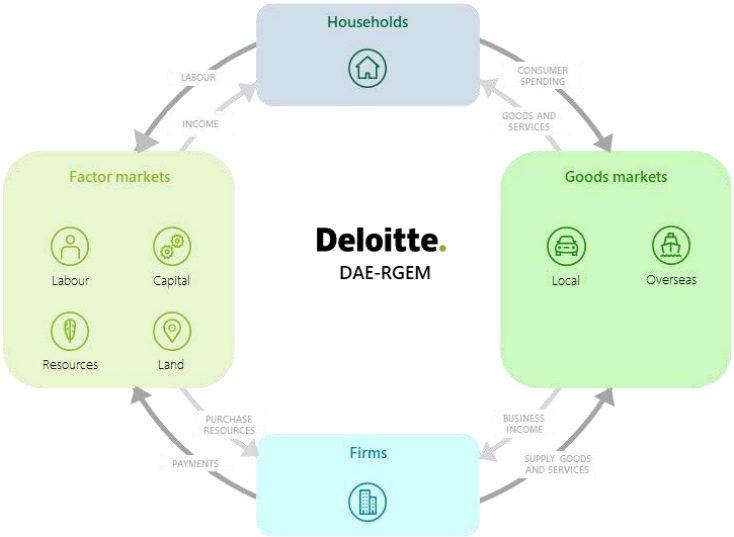
Appendix 2: Overview of modelling approach and assumptions

Computable general equilibrium modelling of alternative royalty regimes

Introducing DAE-RGEM

The Deloitte Access Economics – Regional General Equilibrium Model (DAE-RGEM) is a large scale, dynamic, multi-region, multi-commodity computable general equilibrium (CGE) model of the world economy with bottom-up modelling of New Zealand regions. The model allows policy analysis in a single, robust, integrated economic framework. This model projects changes in macroeconomic aggregates such as GDP, employment, export volumes, investment and private consumption. At the sectoral level, detailed results such as output, exports, imports and employment can also be produced. A stylised diagram of DAE-RGEM is provided in Figure 18.

Figure 18 – Stylised diagram of DAE-RGEM



Source: Deloitte Access Economics

The model is based upon a set of key underlying relationships between the various components of the model, each of which represent a different group of agents in the economy. These relationships are solved simultaneously, and so there is no logical start or end point for describing how the model actually works. However, they can be viewed as a system of interconnected markets with appropriate specifications of demand, supply and the market clearing conditions that determine the equilibrium prices and quantity produced, consumed and traded.

Modelling the economic impact of alternative royalty regimes

The economic impact of alternative royalty regimes in New Zealand has been modelled by considering two future "what-if" scenarios for the New Zealand economy:

1) A baseline scenario, where the current royalty regime remains in place. This scenario is calibrated by aligning DAE-RGEM to macroeconomic projections for GDP, employment, labour supply and population for the New Zealand and global economies (from a mixture of in-house macroeconomic projects and forecasts from the International Monetary Fund (IMF)). Additionally, we have calibrated the size of mining industries, and the royalty take based on information from MBIE.

2) A collection of what-if scenarios, based on assumed potential changes to the regime. These scenarios are modelled by applying a series of "shocks" to estimate the deviations from the baseline which may be expected to occur as a result of changing the regime.

Under the what-if scenarios, the following shocks have been applied to DAE-RGEM:

- A shock to the AVR rate, which has been implemented as a shock to the power of tax on outputs produced by coal and metallic mining firms.
- A shock to the APR rate, which has been implemented as a shock to the power of tax on the use of capital as an input to production by coal and metallic mining firms. In DAE-RGEM, profits generated by firms are treated as payments to capital. As the APR is levied on accounting profits, this has been identified as the most suitable tax in DAE-RGEM to mimic changes to the APR.

We have not made any explicit assumptions regarding how changes to the royalty regime impacts investment and sector activity. Instead, these outcomes are solved for by DAE-RGEM. Given the regulated nature of mining production (notably, the requirement to have permits to undertake mining activities) results from DAE-RGEM should be interpreted as "smoothed" sectorial outcomes over time.

Model configuration

For the purposes of this modelling exercise, DAE-RGEM has been configured at the national level for the New Zealand economy, with international regions of Australia, APAC (capturing all Asia-Pacific countries except New Zealand and Australia) and "Rest of World" (capturing all countries outside of the APAC region).

Table 22 – Industry aggregation of DAE-RGEMoutlines the industry disaggregation of DAE-RGEM used for this modelling.

Table 22 – Industry aggregation of DAE-RGEM

Industries
Agriculture, forestry and fishing
Coal
Aggregates and quarrying
Metallic mining
Oil and gas
Light manufacturing
Petroleum and coking manufacturing
Heavy manufacturing
Minerals manufacturing
Aggregates manufacturing
Renewable electricity
Conventional electricity
Electricity distribution and transmission

Water and other utilities
Construction
Retail and wholesale trade
Accommodation and food services
Transport
Communications
Financial services
Business services
Other services
Government services
Dwellings

The metallic minerals and aggregates industries are not standard GTAP industries. Instead, we have used New Zealand data to split the GTAP Other Mining Extraction industry into metallic minerals (in New Zealand's case capturing gold, silver and ironsands) and aggregates (capturing quarrying and aggregates). This split allowed us to distinguish between the different treatment of these commodities under the current minerals' royalty regime.

Components of DAE-RGEM and key linkages

Households

Each region in the model has a so-called representative household that receives and spends all income. The representative household allocates income across three different expenditure areas: private household consumption; government consumption; and savings.

The representative household interacts with producers in two ways. First, in allocating expenditure across household and government consumption, the representative household generates demand for production. Second, the representative household owns and receives all income from factor payments (labour, capital, land and natural resources) as well as net taxes. Factors of production are used by producers as inputs into production along with intermediate inputs. The level of production, as well as supply of factors, determines the amount of income generated in each region.

The representative household's relationship with investors is through the supply of investable funds – savings. The relationship between the representative household and the international sector is twofold. First, importers compete with domestic producers in consumption markets. Second, other regions in the model can lend (borrow) money from each other.

- The representative household allocates income across three different expenditure areas – private household consumption; government consumption; and savings – to maximise a Cobb-Douglas utility function.
- Private household consumption on composite goods is determined by minimising a CDE (Constant Differences of Elasticities) expenditure function. Private household consumption on composite goods from different sources is determined is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.

- Government consumption on composite goods from different sources, is determined by maximising a Cobb-Douglas utility function.
- All savings generated in each region is used to purchase bonds whose price movements reflect movements in the price of generating capital.

Producers

Apart from selling goods and services to households and government, producers sell products to each other (intermediate usage) and to investors. Intermediate usage is where one producer supplies inputs to another's production. For example, milk producers supply inputs to the dairy sector.

Capital is an input into production. Investors react to the conditions facing producers in a region to determine the amount of investment. Generally, increases in production are accompanied by increased investment. In addition, the creation of machinery, buildings and other goods that form a region's capital stock is undertaken by producers. In other words, investment demand adds to household and government expenditure from the representative household. To determine the demand for goods and services, producers interact with international markets in two main ways. First, they compete with producers in overseas regions for export markets, as well as in their own region. Second, they use inputs from overseas in their production.

Sectoral output equals the amount demanded by consumers (households and government) and intermediate users (firms and investors) as well as exports.

Intermediate inputs are assumed to be combined in fixed proportions at the composite level.

To minimise costs, producers substitute between domestic and imported intermediate inputs based on an Armington assumption as well as between primary factors of production (through a CES aggregator).

The supply of labour is positively influenced by movements in the wage rate governed by an elasticity of supply (assumed to be 0.2). This implies that changes influencing the demand for labour, positively or negatively, will impact both the level of employment and the wage rate. This is a typical labour market specification for a dynamic model such as DAE-RGEM. There are other labour market settings that can be used. First, the labour market could take on long-run characteristics with aggregate employment being fixed with any changes to labour demand being absorbed through movements in the wage rate.

Second, the labour market could take on short-run characteristics with fixed wages and flexible employment levels

Investors

Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. The global investor ranks countries based on two factors: current economic growth and rates of return in a given region compared with global rates of return.

Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interregional sources for these goods via a Constant Ratio of Elasticity of Substitution, Homothetic (CRESH) production function.

International

Each of the components outlined above operate, simultaneously, in each region of the model. That is, for any simulation, the model forecasts changes to trade and investment flows within, and between, regions subject to optimising behaviour by producers, consumers and investors. Of course, this implies some global conditions that

must be met, such as global exports and global imports, are the same and that global debt repayment equals global debt receipts each year.

Assumptions in calculating effective government take

The estimates of effective government take are subject to data assumptions:

- Metallic mineral category – Metallic minerals are classified as minerals mined to produce metals, broadly consistent with NZPAM reporting categories, which identify metallic minerals (e.g., gold, silver, ironsand) as a separate group from aggregates, industrial minerals, and coal.
- Aggregate mineral category – Aggregates are defined using the NZPAM Aggregate Commodity Report, which classifies aggregates as sand, gravel, and crushed rock used for construction, with industrial uses and dimension stone excluded.[68]
- Coal mineral category – Coal includes the extraction of coal across all mining methods and coal types, including opencast and underground operations, as well as thermal, coking, semi-soft, and lignite coal.
- Imputed profit – MBIE were unable to provide data on accounting profits but were able to provide data on net sales revenue. Accounting profits are imputed using net sales revenue and a profit margin derived using income and expenditure data for the mining sector from the Stats NZ annual enterprise survey.[69] Profit margins are derived for 2013 to 2024. For 2006 to 2012 and 2025, the average profit margin between 2013 to 2024 is used.
- Missing values for net sales revenue – Gross sales revenue is used where net sales revenue is missing. Where neither net nor gross sales revenue is available, net sales revenue is imputed using royalty payments and the applicable royalty rate.
- Exclusion of anomalous values – Observations are omitted where royalty payments or energy resource levy payments exceed 50% of net sales revenue, or where values otherwise appear implausible. This includes negative entries and values likely arising from data errors (e.g., missing zeros in net sales revenue). In particular, effective royalty rates of 5.625%, 5.75%, 11.25%, and 11.5% are excluded, as these correspond to multiples of the most common statutory rates (0.5% and 1% AVRs, with GST applied) and are therefore likely to reflect misreported values rather than genuine outcomes.
- Cross-mineral category returns excluded – Observations are excluded where a single return ID includes multiple minerals that do not all belong to the same category. This applies both to cases spanning multiple categories and to cases where one or more minerals cannot be classified into any category.
- GST treatment – GST is included in reported royalty payments but excluded from the Energy Resources Levy, which is not subject to GST. From 1 July 2026, the Energy Resources Levy will be subject to GST.[70] For imputed net sales revenue, GST is applied based on the calendar year of each observation (12.5% for 2010 and earlier, 15% for 2011 onward) for simplicity, whereas royalties already contain the exact GST amounts. To the extent that GST is recoverable by operators, its inclusion may result in a slight overstatement of effective government take.
- Tax deductibility treatment – Royalties are generally tax deductible; however, no adjustment has been made to reflect this in the calculation of effective government take. Royalties are expressed as a share of profit by dividing royalty payments by estimated profit, without adjusting the profit base to account for their deductibility. This simplifies the interaction between royalties and corporate tax. To the extent that royalties are tax deductible, their inclusion on this basis may result in a slight overstatement of effective government take.

[68] Christie, T., Thompson, B., & Brathwaite, B (2001)
[69] Stats NZ (2025, June 27)
[70] New Zealand Petroleum & Minerals (2026, April 2)

- Corporate tax rates – The corporate tax rate in New Zealand decreased from 33% to 30% on 1 April 2008, and from 30% to 28% on 1 April 2011.[71] As these changes occurred one-quarter into the year, time-weighted average rates have been applied for the transition years (30.75% for 2008 and 28.5% for 2011).
- Differing revenue baselines – Revenue denominators vary across instruments. For royalties and the Energy Resources Levy, net sales revenue is restricted to observations with corresponding non-missing payment values (for example, an observation with revenue and royalty data but missing annual fee data is included for royalties but excluded for annual fees). For corporate tax, application fees, and DOC fees, the full available revenue sample is used to maximise coverage, reflecting that missing or zero values for these instruments do not necessarily indicate data gaps.

[71] PwC (n.d.)

Appendix 3: Details of other fees, levies and taxes

Unit per tonne or cubic metre royalties, 2008

Table 23 – Royalty rates for minerals subject to unit royalties 2008 vs 2013 regimes[72, 73]

Mineral	2008	2013
Aggregate and construction materials (including rock, sand and gravel for roading, building, fill reclamation, and protection purposes	$0.10	$0.11
Bentonite	$0.80	$0.92
Clay for brick and tiles	$0.10	$0.11
Clay for pottery	$0.30	$0.34
Coal (hard and semi-hard coking)	$1.40	-
Coal (thermal and semi-soft coking)	$0.80	-
Coal (lignite)	$0.30	-
Decorative/dimension building stone	$1.50	$1.72
Decorative pebbles	$0.30	$0.34
Diatomite	$1.50	$1.72
Dolomite	$0.20	$0.23
Limestone for agriculture, cement and industry	$0.20	$0.23
Marl	$0.10	$0.11
Perlite	$0.30	$0.34
Pumice	$0.10	$0.11
Serpentinite	$0.30	$0.34
Silica sand for industry	$0.30	$0.34
Zeolite	$1.50	$1.72
Peat (per cubic metre)	$0.30	$0.34

Source: New Zealand Petroleum & Minerals

[72] New Zealand Petroleum & Minerals (2008, February 1)
[73] New Zealand Government (2025, September 25)

Exploration, prospecting and mining permit fees

Table 24 – Application fees (effective from 1 January 2017)[74, 75, 76]

Application Type	Tier 1 Fee	Tier 2 Fee
Mining permit	$16,675	$5,750
Prospecting permit	Not applicable	$3,450
Exploration permit	$3,450	$3,450
Changes to a permit	$3,478.75	$3,478.75
Extension of duration of an exploration permit	$4,427.50	$4,427.50
Transfers of interest, dealings and changes of control and permit operator	$2,530	$2,530

Source: New Zealand Petroleum & Minerals

Annual exploration, prospecting and mining permit fees

Table 25 – Annual permit fees[77, 78, 79]

Permit	Tier 1 Onshore	Tier 1 Offshore	Tier 2 Onshore	Tier 2 Offshore
Mining permit	$2,058.50 per sq km (or part of a square kilometre) or $1,610, whichever is greater	$102.22 per sq km (or part of a square kilometre) or $1,610, whichever is greater	$2,058.50 per sq km (or part of a square kilometre) or $1,150, whichever is greater	Not applicable
Prospecting permit	Not applicable	Not applicable	$63.02 per sq km (or part of a square kilometre) or $1,610, whichever is greater	$3.58 per sq km (or part of a square kilometre) or $1,610, whichever is greater
Exploration permit	$358 per sq km (or part of a square kilometre) or $1,610, whichever is greater	$10.73 per sq km (or part of a square kilometre) or $1,610, whichever is greater	$358 per sq km (or part of a square kilometre) or $1,610, whichever is greater	$10.73 per sq km (or part of a square kilometre) or $1,610, whichever is greater

Source: New Zealand Petroleum & Minerals

[74] New Zealand Petroleum & Minerals (2026, May 26)
[75] New Zealand Petroleum & Minerals (2025, October 20)
[76] New Zealand Government (2025, September 25)
[77] New Zealand Government (2025, September 25)
[78] New Zealand Government (2025, September 25)
[79] New Zealand Government (2025, September 25)

Exploration, prospecting and mining permit fees – 1991 and 2006 regimes

Table 26 – Application fees[80, 81]

Application	Fee (1991)	Fee (2006) (12.5%/15% GST)
Mining permit	$1,687.50	$3,200/$3,271.11
Prospecting permit	$1,125	$1,600/$1,635.55
Exploration permit	$1,125	$2,300/$2,351.11
Changes to a permit	$1,125	$2,500/$2,555.55
Extension of duration of a permit	$1,125	$2,500/$2,555.55 General $3,200/$3,271.11 Appraisal
Extension of land of a permit	$1,125	-
Extension of minerals of a permit	$562.50	-
Transfers of interest, dealings and changes of control and permit operator	$1,125	$600/$613.33
Appointment of arbitrator	$562.50	-
Surrender or partial surrender of a permit	$112.50	-
Replacement copy of a permit	$112.50	-

Source: New Zealand Petroleum & Minerals

Annual exploration, prospecting and mining permit fees – 1991

Table 27 – Annual fees under Crown Minerals (Fees) Regulations 1991[82]

Permit	Initial term	Renewal of the permit
Mining permit	$11.25 per hectare (or part of a hectare)	$11.25 per hectare (or part of a hectare)
Exploration permit	$2.25 per hectare (or part of a hectare) or $45, whichever is greater	$4.50 per hectare (or part of a hectare) or $90, whichever is greater
Prospecting permit	$2.25 per square km (or part of a square km) or $500, whichever is greater	$2.25 per square km (or part of a square km) or $500, whichever is greater

Source: New Zealand Petroleum & Minerals

[80] New Zealand Government (2025, September 25)
[81] New Zealand Government (2017, January 1)
[82] New Zealand Government (1991, September 16)

Annual exploration, prospecting and mining permit fees – 2006

Table 28 – Annual fees under Crown Minerals (Minerals Fees) Regulations 2006[83]

Permit	Onshore (12.5% GST/15% GST)	Offshore (12.5% GST/15% GST)
Mining permit	$10/$10.22 per hectare (or part of a hectare) or $500/$511.11, whichever is greater	$100/$102.22 per square km (or part of a square km) or $500/$511.11, whichever is greater
Exploration permit	$3.50/$3.58 per hectare (or part of a hectare) or $500/$511.11, whichever is greater	$10.50/$10.73 per square km (or part of a square km) or $500/$511.11, whichever is greater
Prospecting permit	$3.50/$3.58 per hectare (or part of a hectare) or $500/$511.11, whichever is greater	$3.50/$3.58 per hectare (or part of a hectare) or $500/$511.11, whichever is greater
Extension of duration of an exploration permit – general (s 36)	$8.50/$8.69 per hectare (or part of a hectare) or $500/$511.11, whichever is greater	Not applicable

Source: New Zealand Petroleum & Minerals

DOC Fees[84]

For any prospecting, exploration, or mining activities that take place on public conservation land, an application must be lodged with the DOC which involves a fee based on hourly staff charge-out rates (between $186 and $301 plus GST per hour) to process the application. The types of fees DOC charges include application processing fees, monitoring fees, concession management fees.

Applications fees relate to applications for new permissions or changes to existing permissions. For new permissions, there are three sub-categories with increasing degrees of complexity:

- One-off concession category: Minimum fee of $740 to $930 plus GST
- Standard category: Minimum fee of $2,450 plus GST
- Complex A category: Minimum fee of $3,750 plus GST
- Complex B category: Minimum fee of $7,600 plus GST

Applications can also include changes to existing permissions, with minimum fees exclusive of GST ranging from $460 and $2,450 depending on the type of change being applied for.

Monitoring fees cover the cost of DOC monitoring the effects of the mining activity and the operation's compliance with its contractual obligations under its permission conditions. These fees are based on staff time at a rate of $186 to $301 per hour plus GST, mileage charged at Tier 1 Inland Revenue Kilometre Rates, and any other actual costs incurred during the monitoring process.

Concession management fees are annual fees to cover the time DOC spends managing the concession. It comprises a base rate, rent review (activity fee review) processing rate, activity return processing rate, and rates recovery

[83] New Zealand Government (2017, January 1)
[84] Department of Conservation (n.d.)

processing rate with minimum fees exclusive of GST ranging between $80 and $360 for each of those sub-components per annum.

In addition to the three fee types described above, DOC also charges concession activity fees, which are incurred when particular activities are done on conservation land during exploration, prospecting, or mining activities. These are not based on cost recovery and cover a wide range of activities including but not limited to the use of drones, easements, filming and photography and gravel extraction and processing. Easement activity fees are calculated at different rates depending on the number of beneficiaries, the type and number of rights being granted, and the nature of the easement. DOC publishes tables of rates, however the factors mentioned above lead to a high degree of variability between each application, meaning that it is unlikely that these tables represent a true to-the-dollar amount an operation can expect to be subject to, and should instead be interpreted as a likely floor to the fees charged.

A non-exhaustive set of relevant concession activity fees for mining operations include easements and gravel extraction fees. Easements are split into non-commercial, minor commercial and commercial. The commercial rates are presented in Table 29 – DOC commercial easements for mining operations on conservation land given most mining operations would likely fall under this category. DOC specifies that a valuation is likely to be required to determine the market value for significant commercial easements, however if a valuation is not required, the fees in Table 29 represents a minimum or base rate of fees that may apply.

Table 29 – DOC commercial easements for mining operations on conservation land

Commercial easement type	Fee (plus GST)
Right of way – Foot and cycle access	$1,665
Right of way – Livestock bridge	$1,665
Right of way – Vehicle access	$1,995
Right to convey water – Supply	$1,665
Right to convey water – Discharge	$1,665
Right to convey electricity – Underground and overhead cables	$1,665
Right to convey telecommunications – Single activity	$1,330
Right to convey telecommunications – Part of a network	$1,995, plus $3.00 per metre of cabling

Source: Department of Conservation

All the rates in Table 29 – DOC commercial easements for mining operations on conservation land reflect the per annum charge for easements and are adjusted annually to account for consumer price index inflation increases.

Fees for gravel are split into access, extraction, processing and storage.

Gravel access fees are charged to grant the right to use public land to access and extract gravel. The fee is determined by the number of sites the operator intends to access each year as set out in the Table 30 below.

Table 30 – Gravel access fees

Number of sites accessed	Access fee (plus GST)
0 to 2	$1,995
3 to 5	$5,985
6 to 8	$11,970
9+	$17,955

Source: Department of Conservation

Gravel extraction fees are charged on a per cubic metre basis, with rates being determined by the geographic location and type of gravel.

Table 31 – Gravel extraction fees

Type	Location	Price per cubic metre (Plus GST)
"Normal" rock/gravel extraction	West Coast of the South Island	$1.00 per m^3
"Normal" rock/gravel extraction	All other locations	$2.00 per m^3
Landscaping and decorative rock (i.e. schist)	All locations	$6.50 per m^3

Source: Department of Conservation

Gravel processing, including activities such as the crushing and grading of gravel, is typically subject to a fee based on a percentage of the land value for the site. The standard calculation uses a rate of 6% of the land value, however in some cases a square-metre rate may apply.

Gravel storage and stockpiling fees are applied per square metre of land, with rates determined by the total square meterage of land area required. This is outlined in Table 32 – Gravel storage/stockpiling fees below.

Table 32 – Gravel storage/stockpiling fees

Number of sites accessed	Access fee (plus GST)
1 to 1,000m^2	$0.65 per m^2
1,001 to 4,000 m^2	$0.55 per m^2
4,001 to 6,000 m^2	$0.50 per m^2
6,000 to 10,000 m^2	$0.47 per m^2
10,000 m^2 plus	$0.44 per m^2

Source: Department of Conservation

Certain conservation land areas also face a premium on top of the base concession activity fees.

- National Park, Nature Reserve, Ecological Area, National Reserve, Wilderness Area or Wilderness Reserve, Wildlife Sanctuary or Sanctuary Area: **40% premium.**
- Conservation (Forest) Park, Scientific Reserve, Historic Reserve, Wildlife Management Reserve, Scenic Reserve, Wildlife Refuge: **25% premium.**
- Recreational Reserve, Government and Local Purpose Reserves, Other Reserves, Stewardship Area, Water Course Area, Marginal Strip: **10% premium.**
- Open Pasture Under Grazing in Category III land status and unprotected, or non-reserve land held for administration purposes: **0% premium.**

Fast-track approval fees

The Fast-track Approvals Act 2024 introduced a unified application process for major infrastructure projects of regional or national significance.[85] Although not all proposed mining projects will seek fast-track approval, some major mining projects do seek fast track approval. This process attracts fixed fees based on cost recovery for processing the application.

Table 33 – Fast-track approval fees[86]

Application	Levy	Application Fee	Total (incl. GST)
Referral application	$7,705	$13,800	$21,505
Land exchange application	$15,410	$41,400	$56,810
Substantive application	$161,000	$287,500	$448,500

Source: New Zealand Government – Fast-track approvals

Ministry for the Environment Waste Disposal Levy

The waste disposal levy was introduced under the Waste Minimisation Act 2008 – it is levied upon commercial waste facilities with funds raised going towards a range of environmental activities including waste minimisation, waste management, and hazard remediation.[87] Quarrying operations often generate waste that is commercially processed and is therefore indirectly subject to the waste disposal levy. The levy is split into different classes and facility types, with levy rates charged on a per ton basis with annual step-change increases.

Table 34 – Waste Disposal Levy rates[88]

Facility class	Levy rate (1 July 2025)	Levy rate (1 July 2026)	Levy rate (1 July 2027)
Class 1 – Municipal disposal facilities	$65 per tonne	$70 per tonne	$75 per tonne
Class 2 – Construction and demolition disposal facilities	$35 per tonne	$40 per tonne	$45 per tonne
Classes 3 & 4 – Managed or controlled fill disposal facilities	$15 per tonne	$15 per tonne	$20 per tonne

Source: Ministry for the Environment

[85] Ministry for the Environment (2025, February 7)
[86] Fast-track (n.d.)
[87] Ministry for the Environment (2024, November 27)
[88] Ministry for the Environment (2025, May 5)

Appendix 4: Summary questionnaire results

Key statistics at a glance

- Response coverage
  - 39 responses were received from approximately 290 permit holders.
  - Respondents included:
    - Tier 1 permit holders: 4 respondents (including 3 also holding Tier 2 permits), representing 36.4% of all Tier 1 permit holders.
    - Tier 2 permit holders: 37 respondents (including 3 also holding Tier 1 permits), representing 36.6% of all Tier 2 permit holders.
- Nature and scale of operations
  - The majority of respondents (69%) are engaged in mining operations (extracting minerals).
  - Half of respondents (50%) reported annual net sales revenue below $2 million.
  - Most respondents (86%) are involved in Tier 2 mining operations.
- Royalties, levies, and taxes
  - Respondents reported being primarily subject to:
    - The Tier 2 ad valorem royalty (AVR) of 1% of net sales revenue (41%).
    - Specific per-tonne rates for Schedule 2 minerals (33%).
- Market sentiment
  - Market sentiment is mixed, with:
    - 23% reporting that pricing and margins are under pressure.
    - 14% indicating that market conditions are broadly stable.
    - 8% reporting strong or increasing demand.
- Influence of the royalty regime
  - 46% of respondents indicated that the royalty regime has no material influence on their plans.
  - 23% reported that the royalty regime has a somewhat negative influence.

Market conditions, cost pressures, and sentiment

Questionnaire responses indicate mixed but generally challenging market conditions across the sector. While some respondents reported that market conditions are broadly stable or that demand is strong or increasing (14% reported stable conditions; 8% reported strong or increasing demand), a significant share identified that pricing and margins are under pressure (23%, the most frequently selected response). Increasing competitive pressures were also frequently reported.

These pressures were most pronounced among smaller operators, particularly those with annual revenues below $2 million (50% of respondents) and those operating in aggregates, quarrying, and small-scale minerals extraction. Open ended responses from these respondents frequently referenced rising fuel costs, labour costs, and compliance expenses as key contributors to margin pressure, with limited ability to pass costs through to customers.

Larger operators more commonly described market conditions as broadly stable, although margin pressure was still evident. This suggests that while larger operations may benefit from greater scale or diversification, they are not insulated from cost pressures affecting the sector more broadly.

Across all respondent groups, overall sentiment remains cautious. A notable proportion described market outlooks as undefined or inconclusive (reported by more than one in five respondents), with weaker sentiment more frequently reported by smaller operators and by respondents exposed to volatile input costs or tightly competitive markets.

Investment behaviour, resource certainty, and capital availability

Perceptions of resource certainty varied significantly across respondents. A large proportion reported low or moderate certainty over the availability and quantity of mineral resources (approximately two-thirds of respondents combined), while a smaller share indicated high certainty.

Lower levels of resource certainty were most prevalent among prospecting and exploration focused respondents, where uncertainty is inherently higher, and among smaller, single-asset operations. Respondents reporting higher certainty were more commonly associated with established extraction activities and longer-life operations.

Capital availability was frequently reported as constrained (reported by a majority of respondents), particularly by:

- small and medium-sized operators
- prospecting and exploration entities
- Tier 2 operators (86% of respondents identified Tier 2 involvement).

Several respondents noted that capital is mobile across jurisdictions or increasingly directed offshore (reported by a subset of exploration and larger multi-asset operators), reinforcing sensitivity to uncertainty and risk. These concerns were less prominent among larger operators, although some larger respondents also noted increased competition for capital across global portfolios.

In line with these conditions, most respondents indicated that they are maintaining current levels of prospecting or exploration activity (the most common response category). Increases in prospecting intensity were more commonly reported by respondents indicating higher resource certainty. Conversely, decisions to delay, reduce, or redirect prospecting activity were more frequently associated with:

- low resource certainty
- constrained capital availability
- smaller or shorter-life operations.

In a small number of cases, respondents indicated that prospecting activity is being redirected toward other jurisdictions.

Royalties, regulatory processes, and cumulative cost pressures

Respondents reported exposure to a wide range of charges in addition to royalties, including corporate and personal income tax, health and safety levies, environmental monitoring and reporting fees, emissions trading obligations, and local authority rates and consent charges. Most respondents selected multiple cost categories, reinforcing that costs are experienced cumulatively rather than in isolation.

Smaller operators, particularly those engaged in Tier 2 mining and quarrying of lower-value or higher volume materials, more frequently reported that royalty settings and associated compliance costs constrain margins or increase uncertainty (23% reported a somewhat negative influence of the royalty regime). These respondents also more commonly indicated that administrative and professional costs represent a significant proportion of total operating expenses.

Larger operators more frequently indicated that the royalty regime has no material influence on their investment or prospecting plans (46% overall). However, even among larger respondents, open-ended responses highlighted concerns about administrative complexity, including reporting requirements, permit variation processes, and interactions across regulatory regimes.

Open-ended responses from across respondent groups raised recurring concerns about:

- cumulative and overlapping regulatory requirements across multiple agencies
- permit duration and extension processes that were seen as shortening effective permit life
- legacy royalty arrangements requiring parallel accounting and reporting systems
- application and variation fees applied on a per-permit basis rather than portfolio-wide

Several respondents emphasised that even small changes to costs or administrative requirements can have disproportionate effects on small or family-owned operations operating on thin margins.

Specific costs identified by respondents but not included in Appendix 3, due to their non-standardised and firm-specific nature, include:

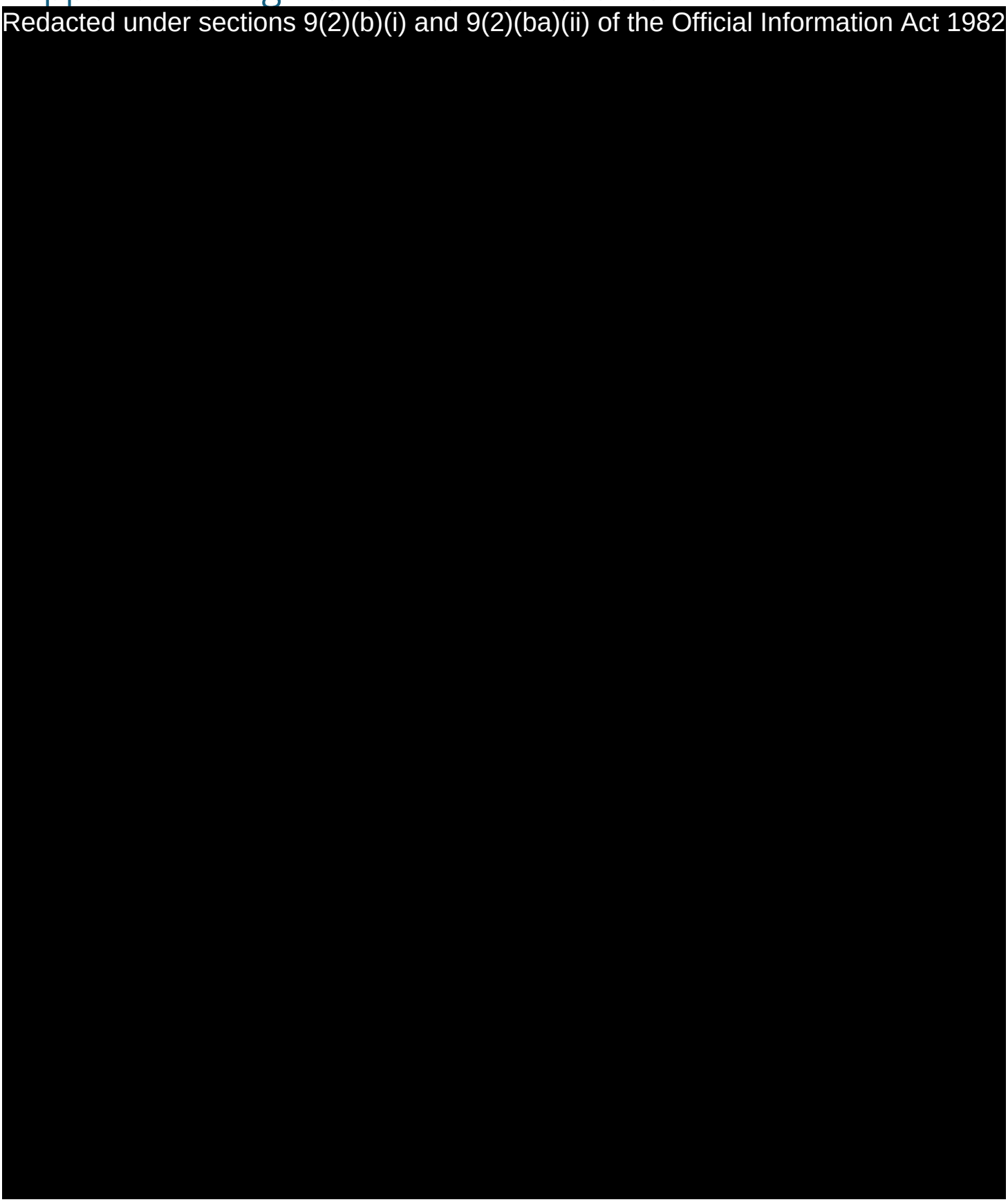
1. Health, Safety & Workforce Charges (Central Government)
    - WorkSafe fees or charges
    - Health and safety levy or compliance-related charges
    - Mines Rescue Levy
2. Environmental & Regulatory Charges (Central Government)
    - Environmental Protection Authority (EPA) fees or charges
    - Emissions Trading Scheme (ETS) units
    - Central government environmental monitoring or reporting charges
    - Central government audit, inspection, or review fees
    - Mandatory reporting or data submission charges to central government agencies
3. Land Access & Use Charges
    - Land Information New Zealand (LINZ) access arrangement fees, lease payments, and annual fees for mining and related activities
4. Financial Assurance/Rehabilitation
    - Closure and rehabilitations bonds (DOC, LINZ, and councils)
5. Local Government Charges
    - Local authority rates
    - Local authority consent charges

Overall observations

Across differences in size, tier, and activity type, the questionnaire responses consistently indicate that investment and operational decisions are shaped by the cumulative effects of market conditions, resource certainty, capital availability, regulatory processes, and the full suite of royalties, fees, and compliance costs. While larger and longer-life operations appear better positioned to absorb these pressures, smaller and shorter-life operators reported greater sensitivity to margin pressure, uncertainty, and administrative burden.

Appendix 5: High level interview themes

Redacted under sections 9(2)(b)(i) and 9(2)(ba)(ii) of the Official Information Act 1982



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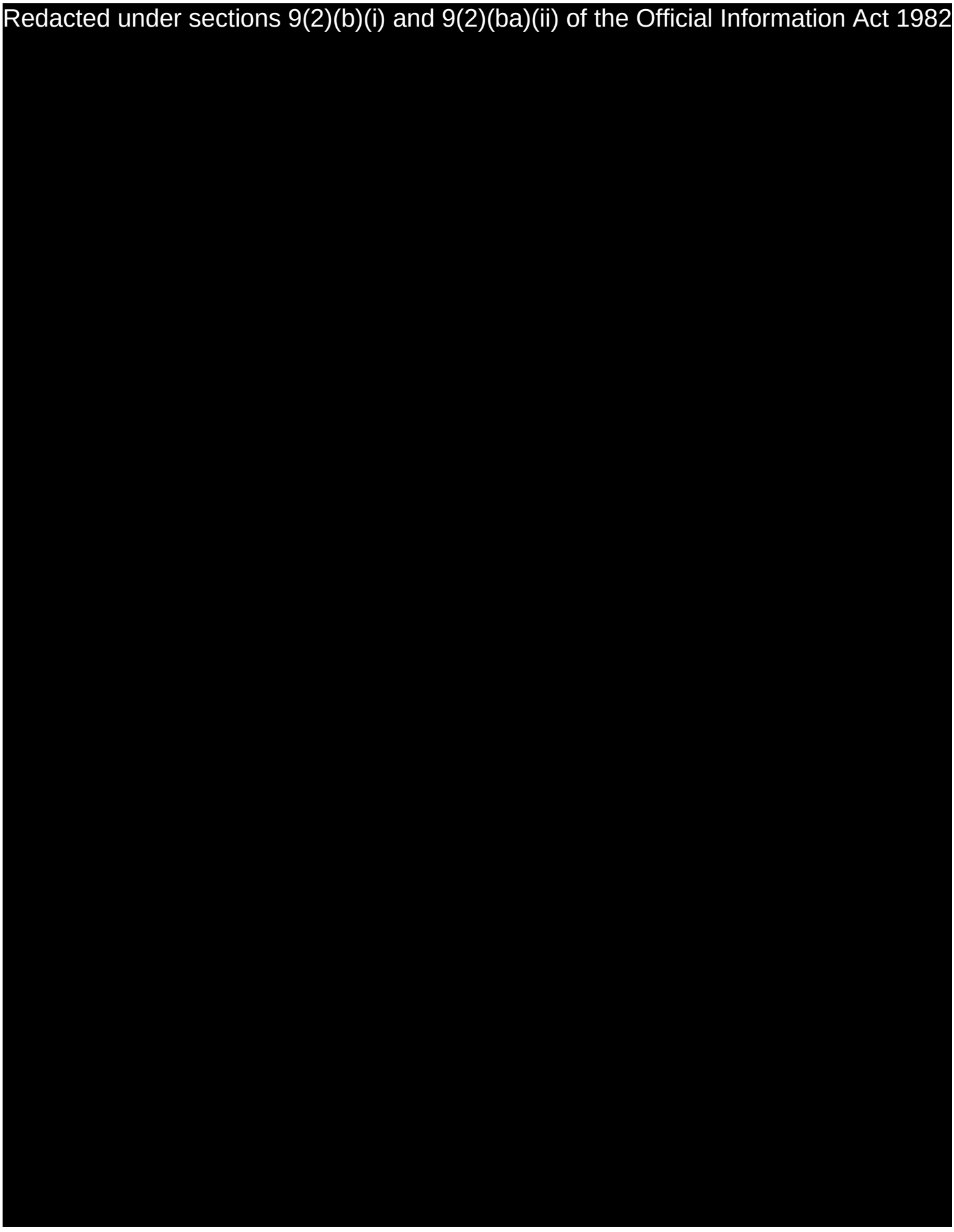

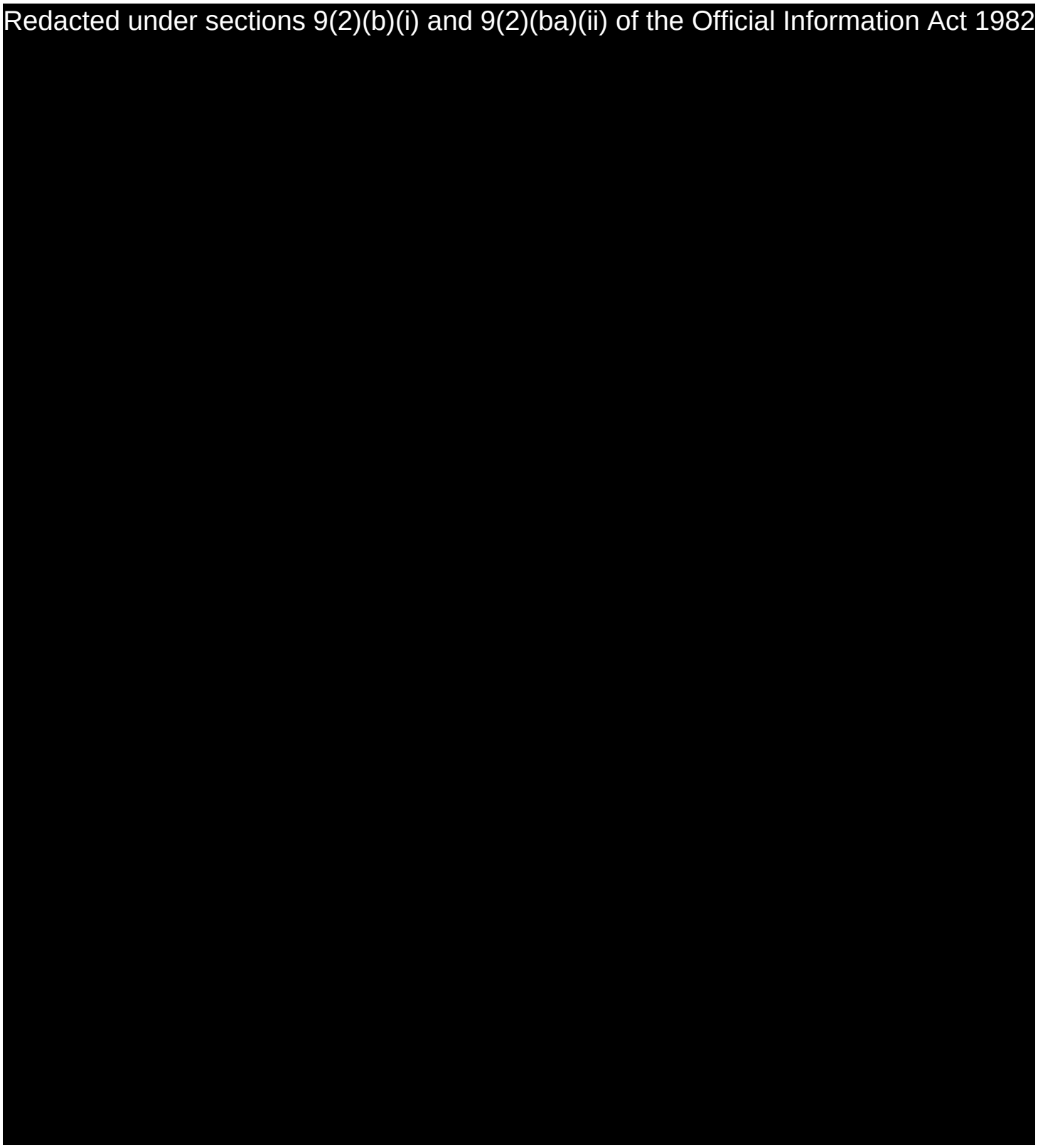
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Appendix 6: International literature review table

Table 35 – International jurisdiction review compares mining royalty regimes across selected international jurisdictions, including royalty structures, rates, tax settings, and key minerals.

Table 35 – International jurisdiction review

Jurisdiction	Population[89]	GDP per capita (USD)[90]	Corporate tax rate	Prominent minerals	Royalty type(s)	Royalty rate(s)
New Zealand	5.3 million	$49,205	28%[91]	Coal, gold, aggregates[92]	• AVR • Hybrid (AVR or APR, whichever is higher) • Fixed per-tonne or per-cubic metre rates[93]	• AVR: 1% or 2% • APR: 10% • Fixed per-tonne or per-cubic metre rates: $0.15 to $2.38 NZD *(adjusted using Input PPI)*[94]
New Zealand grandfathered regime (2008)	4.3 million (approx. as at December 2008)[95]	$31,325[96]	33%/30%/28%[97]	Coal, gold, aggregates[98]	• AVR • Fixed per-tonne or per-cubic metre rates[99]	• AVR: 1% or 2% or determined by the Minister • Fixed per-tonne or per-cubic metre rates: $0.10 to $1.50 NZD[100]
New Zealand grandfathered regime (1996)	3.8 million (approx. as at	$18,794[102]	33%[103]	Coal, gold, aggregates[104]	• AVR	• AVR: 1% if net sales revenue ≤$1m

[89] World Bank (n.d.-a)
[90] World Bank (n.d.-b)
[91] Inland Revenue (2024, April 1)
[92] New Zealand Petroleum & Minerals (2024, November 29)
[93] New Zealand Government (2025, September 25)
[94] New Zealand Government (2025, September 25)
[95] Stats NZ (n.d.-c)
[96] World Bank (n.d.-c)
[97] PwC (n.d.)
[98] New Zealand Petroleum & Minerals (2024, November 29)
[99] New Zealand Petroleum & Minerals (2008, February 1)
[100] New Zealand Petroleum & Minerals (2008, February 1)
[102] World Bank (n.d.-c)
[103] PwC (n.d.)
[104] New Zealand Petroleum & Minerals (2024, November 29)

	December 1996)[101]				• Hybrid (AVR or APR, whichever is higher)[105, 106]	• APR: 5% if net sales revenue >$1m[107][108]
Finland	5.6 million	$53,149	20%[109]	Nickel, zinc, copper, gold[110]	• AVR • Fixed per-tonne rate Finland plans to introduce an APR, creating a hybrid model[111]	• AVR: 2.5% (metallic minerals) • Fixed per-tonne rate: 0.60 Euros (industrial minerals)[112]
Norway	5.6 million	$86,785	22%[113]	Olivine, titanium, iron, limestone, quartz, graphite, dolomite[114]	None (no statutory mineral royalties)[115]	N/A[116]

[101] Stats NZ (n.d.-c)
[105] New Zealand Petroleum & Minerals (1996a, October 1)
[106] New Zealand Petroleum & Minerals (1996b, October 1)
[107] New Zealand Petroleum & Minerals (1996a, October 1)
[108] New Zealand Petroleum & Minerals (1996b, October 1)
[109] Finnish Tax Administration (Vero) (2026, January 1)
[110] Finnish Safety and Chemicals Agency (Tukes) (2025)
[111] Castrén & Snellman (2025, December 16)
[112] Castrén & Snellman (2025, December 16)
[113] Business Norway (n.d.-a)
[114] Business Norway (n.d.-b)
[115] Chambers and Partners (2025)
[116] Chambers and Partners (2025)

British Columbia	5.7 million[117]	$55,223[118] *(converted to USD on 17 April 2026)*	15% federal (9% for eligible small businesses on income up to $500k p.a.) + 12% provincial (2% for eligible small businesses on income up to $500k p.a.)[119]	Coal, copper, gold[120]	• AVR[121] • APR[122]	• AVR: 0.5% (placer gold only)[123] • APR: 2% (before capital costs recovered) or 13% (after capital costs recovered)[124]
Québec	9.0 million[125]	$50,043[126] *(converted to USD on 17 April 2026)*	15% federal (9% for eligible small businesses on income up to $500k p.a.) + 11.5% provincial (3.2% for eligible small businesses on	Graphite, cobalt, lithium nickel, titanium, niobium, copper, zinc[128]	• Hybrid (AVR or APR)[129, 130]	• AVR: 1% (on revenue ≤ $80m) or 4% (on revenue > $80m) [131] • APR: 16% (profit margin ≤ 35%), 22% (> 35% to ≤ 50%), or 28% (> 50%)[132]

[117] Government of Canada (2026, March 18)
[118] Library of Parliament (2026, June 16)
[119] RSM Canada (2025, September)
[120] Clarke, G. et al (2024)
[121] Government of British Columbia (2022, July 15)
[122] Government of British Columbia (2025, April 2)
[123] Government of British Columbia (2022, July 15)
[124] Government of British Columbia (2025, April 2)
[125] Government of Canada (2026, March 18)
[126] Institut de la statistique du Québec (2026, July 31)
[128] Government of Québec (n.d.)
[129] Revenu Québec (n.d.-a)
[130] Revenu Québec (n.d.-b)
[131] Revenu Québec (n.d.-a)
[132] Revenu Québec (n.d.-b)

			income up to $500k p.a.)[127]			
South Africa	64.0 million	$6,267	27%[133]	Platinum-group metals, coal, gold iron ore, chrome, manganese, diamonds[134]	• AVR with a variable profit dependent rate[135]	• AVR: Between 0.5% to 5% for refined minerals and 0.5% to 7% for unrefined minerals (royalty rate increases as operating profit relative to gross sales increases)[136]
Western Australia	3.1 million[137]	$108,634[138] *(converted to USD on 17 April 2026)*	25% for companies under $50m p.a. turnover, 30% for others[139]	Iron ore, gold, lithium, nickel, copper, REE, zinc, coal[140]	• AVR • Fixed per-tonne rates[141]	• AVR: 2.5% (if sold in metallic form or equivalent processing, and for gold), 5% (if sold as a concentrate), or 7.5% (if sold as crushed or screened) • Fixed per-tonne rates: $0.73 or $1.17 AUD[142]
Queensland	5.7 million[143]	$66,173[144] *(converted to*	25% for companies under $50m p.a.	Coal, copper, zinc, lead,	• AVR	• AVR: 1.25% to 5% for most minerals. Up to 10% for

[127] RSM Canada (2025, September)
[133] South African Revenue Service (2026, February 26)
[134] Minerals Council South Africa (2023)
[135] Government of South Africa (2008, November 17)
[136] Government of South Africa (2008, November 17)
[137] Australian Bureau of Statistics (2026, March 19)
[138] Deloitte Access Economics (n.d.)
[139] Australian Taxation Office (2025, June 4)
[140] Precision Drilling Australia (n.d.)
[141] Government of Western Australia (2026, May 1)
[142] Government of Western Australia (2026, May 1)
[143] Australian Bureau of Statistics (2026, March 19)
[144] Deloitte Access Economics (n.d.)

		USD on 17 April 2026)	turnover, 30% for others[145]	bauxite, cobalt, gold, silver[146]	• Fixed per-tonne rates[147]	bauxite and uranium. Up to 40% for coal. • Fixed per-tonne rates: $0.50 to $2.00 AUD[148]
New South Wales	8.6 million[149]	$69,100[150] *(converted to USD on 17 April 2026)*	25% for companies under $50m p.a. turnover, 30% for others[151]	Gold, copper, zinc, silver, nickel, lead, lithium, cobalt, mineral sands, clays, limestone[152]	• AVR • Fixed per-tonne rates[153]	• AVR: 4% (all minerals excluding coal), 8.8% to 10.8% (coal) • Fixed per-tonne rates: $0.35 to $0.70 AUD[154]
Victoria	7.1 million[155]	$62,304[156] *(converted to USD on 17 April 2026)*	25% for companies under $50m p.a. turnover, 30% for others[157]	Gold, titanium, zirconium, rare earth elements[158]	• AVR • Fixed per-tonne or per-cubic metre rates[159]	• AVR: 2.75% • Fixed per-tonne or per-cubic metre rates: $0.87 to $8.07 AUD[160]

[145] Australian Taxation Office (2025, June 4)
[146] Department of Natural Resources and Mines (2017, July)
[147] Queensland Revenue Office (2026, March 12)
[148] Queensland Revenue Office (2026, March 12)
[149] Australian Bureau of Statistics (2026, March 19)
[150] Deloitte Access Economics (n.d.)
[151] Australian Taxation Office (2025, June 4)
[152] NSW Mining (n.d.)
[153] NSW Resources (n.d.)
[154] NSW Resources (n.d.)
[155] Australian Bureau of Statistics (2026, March 19)
[156] Deloitte Access Economics (n.d.)
[157] Australian Taxation Office (2025, June 4)
[158] Resources Victoria (2026, February 11)
[159] Resources Victoria (2026, April 16)
[160] Resources Victoria (2026, April 16)

Ireland	5.4 million	$112,895	25% for mining companies[161]	Zinc, lead[162]	• AVR • APR • Fixed per-tonne rates *May apply individually or in combination, negotiated on a case-by-case basis*[163]	• AVR: determined on a case-by-case basis • APR: determined on a case-by-case basis • Fixed per-tonne rates: determined on a case-by-case basis[164]
United Kingdom	69.2 million	$53,246	19% for companies with profits less than £50k; an effective rate rising from 19% to 25% for companies with profits between £50k and £250k; 25% for companies with profits over £250k[165]	Aggregates[166]	None (no statutory mineral royalties; most onshore minerals are privately owned)[167]	N/A
Chile	19.8 million	$16,710	25% to 27%[168]	Copper, lithium[169]	• Hybrid (AVR + APR; both components	• AVR (as part of the hybrid regime): 1% (qualifying copper sales only)

[161] Government of Ireland (n.d.)
[162] Central Statistics Office (2020)
[163] Electronic Irish Statute Book (2017)
[164] Electronic Irish Statute Book (2017)
[165] HM Revenue & Customs (2026, April 1)
[166] MineralsUK (n.d.-a)
[167] MineralsUK (n.d.-b)
[168] tpcases.com (n.d.)
[169] International Trade Administration (2025, November 24)

		apply and are summed)[170]	• APR (as part of the hybrid regime): 8% to 26% (qualifying copper sales only; rate depends on margin) *The combined royalty and tax burden is capped at 45.5% to 46.5% of profit. Minerals other than qualifying copper are not subject to statutory royalties.*[171]

[170] UN Trade and Development (2023, August 10)
[171] UN Trade and Development (2023, August 10)

Appendix 7: Detailed scenario policy assessment

Table 36 – Detailed scenario policy assessment

Legend: ○ Low | ◔ Low-Medium | ◑ Medium | ◕ Medium-High | ● High

(Higher rating = better meets the criteria)

Criteria and scenario	Rating and commentary
Crown always receives some return	
AVR 0.5% / APR 8% - Only new permits	◔ AVR rates provide return on production. Direct AVR take is lower in comparison to the status quo.
AVR 0.5% / APR 8% - All permits from 2032	◔ AVR rates provide return on production, but AVR take relatively low compared to other scenarios. Direct AVR royalty take is lower in comparison to the status quo but higher than scenario above due to application of lower rates to all permits from 2032.
AVR 1% to 2% / APR 10% - Transition of legacy rates to 2013 regime from 2032	◑ AVR rates provide return on production. Direct AVR take increases relative to the status quo, due to transition of legacy rates to 2013 regime.
AVR 4.4% / APR 0% - Only new permits	◕ AVR rates provide return on production. Direct AVR take increases relative to the status quo.
AVR 4.4% / APR 0% - All permits from 2032	◕ AVR rates provide return on production. Direct AVR take increases relative to the status quo and is further supplemented with transition of grandfathered and legacy permits to alternative regime.
AVR 10% / APR 15% - Only new permits	● AVR rates provide return on production. Direct AVR take increases relative to the status quo.

AVR 10% / APR 15% - All permits from 2032	● AVR rates provide return on production. Direct AVR take increases relative to the status quo and is further supplemented with transition of grandfathered and legacy permits to alternative regime. AVR take is maximised in this scenario, compared to other scenarios.
Upside sharing when profits are high	
AVR 0.5% / APR 8% - Only new permits	◔ APR rates provide return when mining operations are profitable. Direct APR take is lower in comparison to the status quo.
AVR 0.5% / APR 8% - All permits from 2032	◑ APR rates provide return when mining operations are profitable. Direct APR take is lower in comparison to the status quo but higher than scenario above due to application of lower rates to all permits from 2032.
AVR 1% to 2% / APR 10% - Transition of legacy rates to 2013 regime from 2032	◑ APR rates provide return when mining operations are profitable. Direct APR take increases relative to the status quo, due to transition of legacy rates to 2013 regime.
AVR 4.4% / APR 0% - Only new permits	○ Lack of APR rate provides no upside when mining operations are profitable. Direct APR royalty restricted to those on legacy permits.
AVR 4.4% / APR 0% - All permits from 2032	○ Lack of APR rate provides no upside when mining operations are profitable. Direct APR take restricted to those on legacy permits, only until 2032.
AVR 10% / APR 15% - Only new permits	● APR rates provide return when mining operations are profitable. Direct APR take increases relative to the status quo.
AVR 10% / APR 15% - All permits from 2032	● APR rates provide return when mining operations are profitable. APR take sit at the upper end of scenarios modelled and supplemented by transition of grandfathered and legacy permits. Direct APR take increases relative to the status quo and is further supplemented with transition of grandfathered and legacy permits to alternative regime. Direct APR take is maximised in this scenario, relative to other scenarios.
Reasonableness in international context	

AVR 0.5% / APR 8% - Only new permits	● Low compared to similar jurisdictions.
AVR 0.5% / APR 8% - All permits from 2032	● Low compared to similar jurisdictions.
AVR 1% to 2% / APR 10% - Transition of legacy rates to 2013 regime from 2032	◕ Relatively low relative to compared to similar jurisdictions.
AVR 4.4% / APR 0% - Only new permits	◑ Midpoint of AVR rates applied in Australian jurisdictions and sits somewhat in the middle compared to AVR rates of other jurisdictions.
AVR 4.4% / APR 0% - All permits from 2032	◑ Midpoint of AVR rates applied in Australian jurisdictions and sits somewhat in the middle compared to AVR rates of other jurisdictions.
AVR 10% / APR 15% - Only new permits	○ High compared to similar jurisdictions.
AVR 10% / APR 15% - All permits from 2032	○ High compared to similar jurisdictions.
Certainty and sovereign risk	
AVR 0.5% / APR 8% - Only new permits	● Preserves existing and grandfathered or legacy rates, providing investment certainty and reducing perceived sovereign risk.
AVR 0.5% / APR 8% - All permits from 2032	◔ Envisages transition of existing and grandfathered or legacy rates to new regime, deteriorating investment certainty and increasing sovereign risk associated with mining operations in New Zealand. Delayed transition ameliorates this to some extent.
AVR 1% to 2% / APR 10% - Transition of legacy rates to 2013 regime from 2032	◔ Envisages transition of existing and grandfathered or legacy rates to new regime, deteriorating investment certainty and increasing sovereign risk associated with mining operations in New Zealand. Delayed transition ameliorates this to some extent.

AVR 4.4% / APR 0% - Only new permits	● Preserves existing and grandfathered or legacy rates, providing investment certainty and reducing perceived sovereign risk.
AVR 4.4% / APR 0% - All permits from 2032	◔ Envisages transition of existing and grandfathered or legacy rates to new regime, deteriorating investment certainty and increasing sovereign risk associated with mining operations in New Zealand. Delayed transition ameliorates this to some extent.
AVR 10% / APR 15% - Only new permits	● Preserves existing and grandfathered or legacy rates, providing investment certainty and reducing perceived sovereign risk.
AVR 10% / APR 15% - All permits from 2032	◔ Envisages transition of existing and grandfathered or legacy rates to new regime, deteriorating investment certainty and increasing sovereign risk associated with mining operations in New Zealand. Delayed transition ameliorates this to some extent.
Neutrality / non-distortionary	
AVR 0.5% / APR 8% - Only new permits	◕ While presence of AVR and APR rates result in distortionary effects, lower rates result in a less distortionary regime when compared to the status quo, with both metallic minerals and coal sector output increasing.
AVR 0.5% / APR 8% - All permits from 2032	◕ While presence of AVR and APR rates result in distortionary effects, lower rates result in a less distortionary regime when compared to the status quo, with both metallic minerals and coal sector output increasing. Metallic minerals and coal sector output increases more so compared to scenario above, due to transition of all permits to AVR 0.5% / APR 8% from 2032 onwards
AVR 1% to 2% / APR 10% - Transition of legacy permits to 2013 regime from 2032	◑More distortionary overall compared to status quo. Metallic minerals and coal sector output falls overall due to transition of legacy permits to generally higher rates found under 2013 regime.
AVR 4.4% / APR 0% - Only new permits	◔ More distortionary overall compared to status quo, despite lack of APR, due to higher AVR rate, with both metallic minerals and coal sector output falling.

AVR 4.4% / APR 0% - All permits from 2032	◔ More distortionary overall compared to status quo, despite lack of APR, due to higher AVR rate, with both metallic minerals and coal sector output falling. Metallic minerals and coal sector output decreases more so compared to scenario above, due to transition of all permits to AVR of 4.4% from 2032.
AVR 10% / APR 15% - Only new permits	○ At the upper end in terms of distortionary impact, due to higher AVR and APR rates.
AVR 10% / APR 15% - All permits from 2032	○ At the upper end in terms of distortionary impact, due to higher AVR and APR rates. This scenario has the largest overall decline in metallic minerals and coal sector output, due to transition of legacy permits to higher rates from 2032 onwards.
Transparency and administrative simplicity	
AVR 0.5% / APR 8% - Only new permits	◔ Hybrid nature of regime, especially, APR component, increases complexity of monitoring and enforcement. Application to only new permits decreases transparency and adds administrative burden.
AVR 0.5% / APR 8% - All permits from 2032	◑ Hybrid nature of regime, especially, APR component, increases complexity of monitoring and enforcement. Transparency and administrative burden eased due to transition of all permits to alternative regime by 2032.
AVR 1% to 2% / APR 10% - Transition of legacy rates to 2013 regime from 2032	◑ Hybrid nature of regime, especially, APR component, increases complexity of monitoring and enforcement. Transparency and administrative burden eased due to transition of all permits to alternative regime by 2032.
AVR 4.4% / APR 0% - Only new permits	◑ AVR only regime simple to administer. However, complexity from grandfathered and legacy regimes that have a hybrid structure continue to decrease transparency and add administrative burden.
AVR 4.4% / APR 0% - All permits from 2032	● AVR only regime simple to administer. Transition of all permits to AVR only regime by 2032 further increases transparency and reduces administrative burden.
AVR 10% / APR 15% - Only new permits	◔ Hybrid nature of regime, especially, APR component, increases complexity of monitoring and enforcement. Application to only new permits decreases transparency and adds administrative burden.
AVR 10% / APR 15% - All permits from 2032	◑ Hybrid nature of regime, especially, APR component, increases complexity of monitoring and enforcement. Transparency and administrative burden eased due to transition of all permits to alternative regime by 2032.

Bibliography

Note that all URL links included below were accessible as of 10 June 2026

Australian Bureau of Statistics. (2026, March 19). National, state and territory population. https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release

Australian Taxation Office. (2025, June 4). Changes to company tax rates. https://www.ato.gov.au/tax-rates-and-codes/company-tax-rate-changes

Business Norway. (n.d.-a). Overview of tax obligations and VAT in Norway. https://businessnorway.com/invest-in-norway/resources/taxes

Business Norway. (n.d.-b). Minerals. https://businessnorway.com/invest-in-norway/industries/minerals

Castrén & Snellman. (2025, December 16). Parliament approves substantial increases in tax on mined minerals. https://www.castren.fi/parliament-approves-substantial-increases-in-tax-on-mined-minerals/

Central Statistics Office. (2020). Material Flow Accounts 2020. https://www.cso.ie/en/releasesandpublications/ep/p-mfa/materialflowaccounts2020/

Chambers and Partners. (2025). Mining 2025. https://chambers.com/downloads/gpg/1090/018_norway.pdf

Christie, T., Thompson, B., & Brathwaite, B. (2001). Mineral Commodity Report 22 – Aggregate. https://www.nzpam.govt.nz/assets/Uploads/doing-business/mineral-potential/aggregate.pdf

Clarke, G. et al. (2024). Exploration and Mining in British Columbia, 2024: A summary. https://minedocs.com/29/Overview-Exploration-Mining-BC-2024.pdf

Deloitte Access Economics. (n.d.). Business Outlook data for States and Territories.

Department of Conservation. (n.d.). Permission fees: Managing your concession. https://www.doc.govt.nz/get-involved/apply-for-permits/managing-your-concession/permission-fees/

Department of Natural Resources and Mines. (2017, July). Queensland's significant mineral mines, advanced mineral projects and new intersections. https://ohsa.com.au/wp-content/uploads/2017/08/Queensland-Minerals-Mines-and-Advanced-Project-July-2017-OHSA.pdf

Electronic Irish Statute Book. (2017). Minerals Development Act 2017. https://www.irishstatutebook.ie/eli/2017/act/23/section/77/enacted/en/html

Fast-track. (n.d.). Fees, charges and cost recovery. https://www.fasttrack.govt.nz/process/fees-charges-and-cost-recovery

Finnish Safety and Chemicals Agency (Tukes). (2025). Statistics on the mining industry 2025 (Tilastotietoja vuoriteollisuudesta 2025). https://tukes.fi/documents/5470659/6373016/Tilastotietoja%20vuoriteollisuudesta%202025.pdf/55c18160-f896-ce94-6c08-2f8e08d9da2d?t=1773996017933

Finnish Tax Administration (Vero). (2026, January 1). The income taxes assessed on limited liability companies and cooperative societies. https://www.vero.fi/en/businesses-and-corporations/taxes-and-charges/limited-companies-and-cooperatives/income-tax/

Government of British Columbia. (2022, July 15). Mineral tax for placer gold mines. https://www2.gov.bc.ca/gov/content/taxes/natural-resource-taxes/mining/mineral-tax/placer-gold-mines

Government of British Columbia. (2025, April 2). Mineral tax for coal and other mines. https://www2.gov.bc.ca/gov/content/taxes/natural-resource-taxes/mining/mineral-tax/coal-other-mines

Government of Canada. (2026, March 18). Canada's population clock (real-time model). https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2018005-eng.htm

Government of Ireland. (n.d.). Fiscal Framework for Mineral Exploration and Mining in Ireland. https://assets.gov.ie/76647/c8ec3311-5be7-4c38-ad54-272e79b47a31.pdf

Government of Québec. (n.d.). Critical and strategic minerals. https://www.quebec.ca/en/agriculture-environment-and-natural-resources/mining/minerals-mineral-substances/critical-and-strategic-minerals

Government of South Africa. (2008, November 17). Mineral and Petroleum Resources Royalty Act, 2008. https://lawlibrary.org.za/akn/za/act/2008/28/eng@2024-12-24

Government of Western Australia. (2026, May 1). Mineral royalties in WA. https://www.wa.gov.au/government/publications/mineral-royalties-wa

HM Revenue & Customs. (2026, April 1). Corporation Tax rates and allowances. https://www.gov.uk/government/publications/rates-and-allowances-corporation-tax/rates-and-allowances-corporation-tax

Hogan, L. (2008, September 17). International Minerals Taxation: Experience and Issues. https://www.imf.org/external/np/seminars/eng/2008/taxnatural/pdf/hogan.pdf

Inland Revenue. (2024, April 1). Tax rates for businesses. https://www.ird.govt.nz/income-tax/income-tax-for-businesses-and-organisations/tax-rates-for-businesses

Institut de la statistique du Québec. (2026, July 31). Monthly indicators, Québec and Canada. https://statistique.quebec.ca/en/document/main-economic-indicators-quebec-and-canada/tableau/monthly-indicators-quebec-and-canada

International Trade Administration. (2025, November 24). Chile Country Commercial Guide. https://www.trade.gov/country-commercial-guides/chile-mining

Library of Parliament. (2026, June 16). British Columbia's Merchandise Trade with the World. https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/TradeAndInvestment/2026500E

Minerals Council South Africa. (2023). 2023 Comprehensive Facts and Figures. https://www.mineralscouncil.org.za/component/jdownloads/?task=download.send&id=2310&catid=17&m=0

MineralsUK. (n.d.-a). UK mineral statistics. https://www.bgs.ac.uk/mineralsuk/statistics/uk/

MineralsUK. (n.d.-b). UK mineral ownership. https://www.bgs.ac.uk/mineralsuk/planning/uk-mineral-ownership/

Ministry for the Environment. (2024, November 27). Overview of the waste disposal levy. https://environment.govt.nz/what-government-is-doing/areas-of-work/waste/waste-disposal-levy/overview/

Ministry for the Environment. (2025, February 7). Fast-track approvals process. https://environment.govt.nz/acts-and-regulations/acts/fast-track-approvals/fast-track-approvals-process/

Ministry for the Environment. (2025, May 5). Waste disposal levy information and reporting requirements for site operators. https://environment.govt.nz/what-government-is-doing/areas-of-work/waste/waste-disposal-levy/waste-disposal-levy-information-for-site-operators/

Ministry of Business, Innovation and Employment. (2024, July 1). A draft minerals strategy for New Zealand to 2040. https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/minerals-and-petroleum/consultations-and-reviews/a-draft-minerals-strategy-for-new-zealand-to-2040

Ministry of Business, Innovation and Employment. (2025, April 8). Crown Minerals (Royalties for Minerals Other than Petroleum) Royalty Rate Notice 2025. https://gazette.govt.nz/notice/id/2025-go1954

Ministry of Business, Innovation and Employment. (n.d.-a). A Minerals Strategy for New Zealand to 2040. https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/minerals-and-petroleum/strategies/a-minerals-strategy-to-2040

Ministry of Business, Innovation and Employment. (n.d.-b). Regulatory Impact Statement: Royalties on minerals. https://www.mbie.govt.nz/dmsdocument/2763-ris-royalties-on-minerals-pdf

New Zealand Government. (1959, October 23). Iron and Steel Industry Act 1959. https://www.nzlii.org/nz/legis/hist_act/iasia19591959n100294/

New Zealand Government (1971, September 25). Mining Act 1971. https://www.nzlii.org/nz/legis/hist_act/ma19711971n25108/

New Zealand Government (1979, October 1). Coal Mines Act 1979. https://www.nzlii.org/nz/legis/hist_act/cma19791979n21130.pdf

New Zealand Government. (1991, September 16). The Crown Minerals (Fees) Regulations 1991. https://www.nzlii.org/nz/legis/num_reg/cmr1991312.pdf

New Zealand Government. (2017, January 1). Crown Minerals (Minerals Fees) Regulations 2006. https://www.legislation.govt.nz/secondary-legislation/pco-drafted/2006/226/en/latest/#DLM403149

New Zealand Government. (2023, May 20). Energy Resources Levy Act 1976. https://www.legislation.govt.nz/act/public/1976/71/en/latest/#DLM439695

New Zealand Government. (2025, September 25). Crown Minerals (Royalties for Minerals Other than Petroleum) Regulations 2013. https://www.legislation.govt.nz/secondary-legislation/pco-drafted/2013/206/en/latest/#DLM5211652

New Zealand Government. (2025, September 25). Crown Minerals (Minerals Fees) Regulations 2016. https://www.legislation.govt.nz/secondary-legislation/pco-drafted/2016/275/en/latest/#DLM7030945

New Zealand Government. (2026, May 19). Crown Minerals Act 1991. https://www.legislation.govt.nz/act/public/1991/70/en/latest/#DLM242536

New Zealand Petroleum & Minerals. (1996a, October 1). Minerals Programme for Minerals Other than Coal and Petroleum 1996. https://www.nzpam.govt.nz/assets/Uploads/our-industry/rules-regulations/minerals-programme-for-minerals-other-than-coal-or-petroleum-1996.pdf

New Zealand Petroleum & Minerals. (1996b, October 1). Minerals Programme for Coal 1996. https://www.nzpam.govt.nz/assets/Uploads/our-industry/rules-regulations/minerals-programme-for-coal-1996.pdf

New Zealand Petroleum & Minerals. (2008, February 1). Minerals Programme for Minerals Other than Coal and Petroleum 2008. https://www.nzpam.govt.nz/assets/Uploads/our-industry/rules-regulations/minerals-programme-for-minerals-2008.pdf

New Zealand Petroleum & Minerals. (2017, January 17). New Zealand's mineral estate. https://www.nzpam.govt.nz/nz-industry/mineral-estate

New Zealand Petroleum & Minerals. (2024, November 29). Annual minerals industry statistics and survey. https://www.nzpam.govt.nz/nz-industry/nz-minerals/minerals-statistics/industry-statistics

New Zealand Petroleum & Minerals. (2025, October 20). Types of minerals permits. https://www.nzpam.govt.nz/permits/minerals/types

New Zealand Petroleum & Minerals. (2025, September). Minerals Programme for Minerals (Excluding Petroleum) 2025. https://www.nzpam.govt.nz/assets/Uploads/our-industry/rules-regulations/minerals-programme-2025.pdf

New Zealand Petroleum & Minerals. (2026, May 26). Minerals permit fees, royalties and the Energy Resources Levy. https://www.nzpam.govt.nz/permits/minerals/fees-royalties

New Zealand Petroleum & Minerals. (2026, January 12). Developing our minerals sector. https://www.nzpam.govt.nz/nz-industry/developing-our-minerals-sector

New Zealand Petroleum & Minerals. (2026a, March 26). Apply for a minerals mining permit (Tier 1 or Tier 2). https://www.nzpam.govt.nz/permits/minerals/apply-manage/apply-for-a-minerals-mining-permit-tier-1-or-tier-2

New Zealand Petroleum & Minerals. (2026b, March 26). Apply for a minerals mining permit (Tier 3) or move from a Tier 2 to a Tier 3 mining permit. https://www.nzpam.govt.nz/permits/minerals/apply-manage/apply-for-a-minerals-mining-permit-tier-3-or-move-from-a-tier-2-to-a-tier-3-mining-permit

NSW Mining. (n.d.). Metals and Minerals. https://nswmining.com.au/mining-in-nsw/what-we-mine/metals-and-minerals/

NSW Resources. (n.d.). Royalties. https://www.resources.nsw.gov.au/invest-nsw/nsw-mineral-resources/royalties

Nwaila, G. T. et al. (2026, May). Adaptive royalty formulations for critical minerals amid fiscal volatility and geopolitical uncertainty. https://www.sciencedirect.com/science/article/pii/S0301420726000723

Office of the Minister of Energy and Resources. (n.d.). Royalties on minerals. https://www.mbie.govt.nz/dmsdocument/2772-royalties-on-minerals-cabinet-paper-pdf

Otto, J. et al. (2006). Mining Royalties: A Global Study of Their Impact on Investors, Government, and Civil Society. https://documents1.worldbank.org/curated/en/103171468161636902/pdf/372580Mining0r101OFFICIAL0USE0ONLY1.pdf

Precision Drilling Australia. (n.d.). Top 10 Minerals Found in Western Australia and Their Economic Impact. https://www.precisiondrillingaustralia.com.au/blog/top-10-minerals-western-australia/

PwC. (n.d.). Tax Tips: Looking ahead - Potential tax levers to promote growth. https://www.pwc.co.nz/insights-and-publications/regular-publications/tax-tips/tax-tips-looking-ahead-potential-tax-levers-to-promote-growth.html

Queensland Revenue Office. (2026, March 12). Mineral royalty rates. https://qro.qld.gov.au/royalty/calculate-mineral/rates/

Reserve Bank of New Zealand. (2026, May 19). Prices (M1). https://www.rbnz.govt.nz/statistics/series/economic-indicators/prices

Resources Victoria. (2026, April 16). A guide to reporting and expenditure compliance. https://resources.vic.gov.au/legislation-and-regulations/guidelines-and-codes-of-practice/guide-to-compliance-and-expenditure

Resources Victoria. (2026, February 11). Minerals. https://resources.vic.gov.au/geology-and-data/minerals

Revenu Québec. (n.d.-a). Calculating the minimum mining tax. https://www.revenuquebec.ca/en/businesses/sector-specific-measures/mining-tax/calculating-the-minimum-mining-tax/

Revenu Québec. (n.d.-b). Rates of the mining tax on annual profit. https://www.revenuquebec.ca/en/businesses/sector-specific-measures/mining-tax/calculating-the-mining-tax-on-annual-profit/rates-of-the-mining-tax-on-annual-profit/

RSM Canada. (2025, September). 2025–2026 Federal and provincial/territorial corporate income tax rates. https://rsmcanada.com/content/dam/rsm/insights/services/business-tax/1pdf/2025-federal-provincial-territorial-corporate-income-tax-rates.pdf

South African Revenue Service. (2026, February 26). Companies, Trusts and Small Business Corporations (SBC). https://www.sars.gov.za/tax-rates/income-tax/companies-trusts-and-small-business-corporations-sbc/

Stats NZ. (n.d.-a). Producers Price Index - PPI: Inputs (ANZSIC06) - NZSIOC level 1 - All Industries Excl Admin Health Education. https://infoshare.stats.govt.nz/

Stats NZ. (n.d.-b). Producers Price Index - PPI: Outputs (ANZSIC06) - NZSIOC level 1 - All Industries Excl Admin Health Education. https://infoshare.stats.govt.nz/

Stats NZ. (n.d.-c). Population. https://www.stats.govt.nz/topics/population/

Stats NZ (2025, June 27. Annual enterprise survey: 2024 financial year (provisional). https://www.stats.govt.nz/information-releases/annual-enterprise-survey-2024-financial-year-provisional/#download-data

tpcases.com. (n.d.). Transfer Pricing in Chile - Rules & Cases. https://tpcases.com/pop-pages/chile/

UN Trade and Development. (2023, August 10). Chile - Adopts new Mining Royalty Act increasing taxation for large copper mining companies. https://investmentpolicy.unctad.org/investment-policy-monitor/measures/4538/chile-adopts-new-mining-royalty-act-increasing-taxation-for-large-copper-mining-companies

World Bank. (n.d.-a). Population, total. https://data.worldbank.org/indicator/SP.POP.TOTL

World Bank. (n.d.-b). GDP per capita (current US$). https://data.worldbank.org/indicator/NY.GDP.PCAP.CD

World Bank. (n.d.-c). GDP per capita (current US$) - New Zealand. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2024&locations=NZ&start=1960&view=chart

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This report is commissioned by and in accordance with the scope agreed with MBIE. This report is based on the specific facts and circumstances relevant to our client. Our report is intended to provide evidence to inform MBIE's minerals royalty regime.

This report includes a compilation of evidence from desktop research, data sources and industry consultation. Some of the evidence presented, particularly from the desktop research, are perspectives provided from third parties, which may not necessarily represent the view of Deloitte.

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