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Legal Certainty in Gross Split Contracts for Upstream Oil and Gas Investment

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Abstract

This article examines whether Indonesia's gross split production-sharing contract provides an adequate degree of legal certainty for upstream oil and gas investment. While the gross split regime was introduced to simplify fiscal administration and eliminate disputes over cost recovery, its broader juridical implications have remained insufficiently explored. Using a normative legal research design combined with comparative doctrinal analysis, the study evaluates the regime through three dimensions of legal certainty clarity of rules, stability of norms, and credibility of enforcement drawing on statutory materials and peer-reviewed scholarship from the last five years. The analysis shows that the gross split model enhances operational clarity but leaves juridical stability vulnerable because material fiscal provisions are mainly anchored in ministerial regulations rather than primary legislation. The transfer of financial and operational risk from the state to contractors further heightens the premium investors place on predictability. Yet, stabilization mechanisms and structured change-in-law protections remain limited. Comparative insights from Malaysia, Thailand, Brazil, Norway, and Nigeria demonstrate that contractual stability is most effectively achieved when fiscal innovation is coupled with strong legal anchoring, disciplined administrative procedures, and credible dispute-resolution channels. The article argues that reform should prioritize institutional consolidation rather than wholesale redesign of the regime. Four complementary policy options are proposed: statutory elevation of core fiscal terms, structured stabilization mechanisms, improved institutional coordination and dispute resolution, and phased, transparent policy transitions. Together, these measures would align the gross split PSC with rule of law principles while preserving necessary policy flexibility. The findings contribute to ongoing debates on resource governance by showing that fiscal efficiency and legal certainty are not competing objectives, but mutually reinforcing pillars of sustainable investment.

1. Introduction

The upstream oil and gas sector operates at the intersection of economic strategy, legal governance, and technological uncertainty, requiring contractual frameworks that are not only economically viable but also legally predictable over long project cycles. Because exploration and development activities involve substantial sunk costs and exposure to volatile commodity prices, states attempt to design fiscal regimes that balance sovereign control with credible incentives for private capital.[1] Production sharing contracts (PSCs) have long been regarded

[1] Mardiana, D. A., Rakhmanto, P. A., Riswati, S. S., Sofilda, E., Aribawa, S., & Martines, G. (2024). Petroleum Fiscal Regimes Attractiveness in Indonesia, Malaysia and Thailand: Application on Offshore Project Development. *Scientific Contributions Oil and Gas*, *47*(3), 265–276. https://doi.org/10.29017/SCOG.47.3.1633

as a suitable mechanism for achieving this balance, particularly in developing economies, by allocating production between governments and contractors while preserving state ownership of resources. Yet, over time, the effectiveness of PSCs has increasingly depended on the clarity of their legal bases and their consistent implementation in practice.[2]

In 2017, Indonesia introduced the gross split PSC as a significant departure from the traditional cost-recovery model. Under the gross split regime, contractors no longer recover exploration and development costs; instead, they receive a predetermined share of gross production, adjusted by variable and progressive factors linked to geological conditions, field maturity, and market dynamics.[3] Policymakers promoted the reform as a means of simplifying administration, reducing opportunities for dispute over recoverable expenses, and enhancing transparency in fiscal calculations. This shift reflected broader global trends in fiscal innovation, where governments sought to limit budget exposure while maintaining competitiveness in attracting upstream investment.

However, emerging research reveals that institutional simplification does not automatically translate into legal certainty. Several studies note that the gross split framework is primarily grounded in ministerial regulations rather than comprehensive statutory legislation, leaving key contractual elements vulnerable to executive amendment.[4] From the standpoint of legal doctrine, such placement within the hierarchy of norms raises concerns about durability, because higher order instruments typically provide greater protection against abrupt regulatory change. At the same time, the elimination of cost recovery shifts a greater share of economic risk to contractors, making legal predictability even more critical for investment decision-making.

Existing scholarship on the gross split regime has tended to privilege analyses of fiscal competitiveness, examining government take, net present value, and revenue distribution outcomes across different contractual scenarios. These contributions are valuable for assessing budgetary implications, but they do not thoroughly examine how the underlying legal architecture shapes contractual stability and investor expectations. For instance, while fiscal models can demonstrate that gross split contracts may, under certain conditions, yield attractive returns, investors may remain cautious if there is uncertainty about whether fiscal terms can be changed unilaterally or whether dispute-resolution mechanisms provide effective recourse. Thus, there is a growing recognition that fiscal efficiency and legal certainty must be evaluated together rather than in isolation.[5]

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[2] Priaga, Moch. A., & Daryanto, W. M. (2020). Capital Budgeting Of Mandala Block Under Indonesia's Gross Split Production Sharing Contract. *International Journal Of Business, Economics And Law*, *23*, 1.

[3] Hidayati, I., & Tan, W. (2025). Assessing justice in sustainable mobility transitions: narratives from transport policies in Jakarta. *Journal of Environmental Policy and Planning*. https://doi.org/10.1080/1523908X.2025.2452923

[4] Rizal, M. N., & Sri Murwani. (2025). Analysis of the Impact of Gross Split Production Sharing Contracts in the Upstream Oil and Gas Sector on State Revenue. Indonesian Treasury Review Jurnal Perbendaharaan Keuangan Negara Dan Kebijakan Publik, 10(1), 24–38. https://doi.org/10.33105/itrev.v10i1.1006

[5] Hutahayan, B., Fadli, M., Amimakmur, S. A., & Dewantara, R. (2024a). Investment decision, legal certainty and its determinant factors: evidence from the Indonesia Stock Exchange. *Cogent Business and Management*, *11*(1). https://doi.org/10.1080/23311975.2024.2332950

The interaction between risk allocation and legal guarantees is particularly salient in upstream petroleum activities. Scholars have shown that when contractual regimes shift significant financial risks to contractors without corresponding stabilisation safeguards, investment tends to concentrate only in low-risk or high-margin fields, leaving more complex resources undeveloped.[6] Comparative analyses further suggest that jurisdictions that codify fundamental fiscal terms in primary legislation or integrate stabilization clauses into long-term contracts are perceived as more reliable investment destinations.[7] These findings imply that the legal strength of the gross split regime cannot be assessed solely by reference to its administrative simplicity; instead, its consistency with broader principles of predictability, proportionality, and enforceability must also be evaluated.

While several recent studies have examined various aspects of gross split production-sharing contracts and upstream fiscal regimes, they tend to emphasize economic performance or overall investment outcomes rather than the specific legal foundations of contractual certainty that underpin investor confidence. For example examines the impact of the shift from cost recovery to gross split on investment dynamics but focuses primarily on fiscal consequences and economic efficiency, with limited attention to how *legal hierarchy* and regulatory durability influence investors' expectations.[8] The balance of rights and obligations in gross split PSCs, highlighting contractual fairness and risk distribution, but without systematically evaluating the core dimensions of legal certainty, clarity of norms, stability of rules, and credibility of enforcement that are central to long-term commitment decisions.[9] Furthermore, research such as the comparative assessment of petroleum fiscal terms. addresses broader fiscal structures and transition issues but does not interrogate how specific legal instruments and their placement within the regulatory hierarchy affect investor perceptions of legal predictability.[10]

In contrast, the present study explicitly positions legal certainty as a doctrinal framework rather than a by-product of economic performance metrics. By integrating normative legal analysis with comparative insights, this article systematically evaluates how the legal arrangement of gross split contracts, particularly the reliance on ministerial regulations and the absence of statutory grounding interacts with investor expectations, risk sharing, and dispute mechanisms in ways that have not been comprehensively explored in the existing literature. This focus on the *institutional and juridical architecture* of contractual regimes

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[6] Saputra, A. (2025). Keadilan Bagi Investor Dalam Penerapan Skema Gross Split Pada Bidang Usaha Hulu Minyak aan Gas Bumi di Indonesia. *Media Hukum Indonesia*, *2*(6), 365–373. https://doi.org/10.5281/zenodo.15539897

[7] Aprizal, M. F., Juanda, B., Ratnawati, A., & Muin, A. (2022). Indonesian Upstream Oil & Gas Governance for Sustainable Innovation. *Jurnal Manajemen Dan Organisasi (JMO)*, *13*(1), 48–60.

[8] Hidayat, J. R. (2025). Changes in the scheme from production sharing contracts to gross split for upstream oil and gas investments in Indonesia. *Journal of Legal and Policy Horizons, 3*(1), xx–xx

[9] Syafrinaldi, R. F., Suriaatmadja, T. T., & Firman, C. A. (2025). Gross split production sharing contracts in the oil and gas business: Creating imbalance and injustice. *Journal of Multidisciplinary Academic Business Studies, 3*(1), 71–81

[10] Krisdianto, Wahyu., (2025), Are Current Petroleum Fiscal Terms Sufficient to Drive Indonesia's Energy Transition? A Systematic Review and Bibliometric Analysis, International Journal of Energy Economics and Policy, 16(1), 240-250

distinguishes the current research from prior work and contributes to a deeper understanding of how fiscal innovation must be matched by robust legal foundations to sustain investment under conditions of regulatory and market uncertainty.

The present article, therefore, advances a novel analytical perspective by placing legal certainty at the center of evaluation. Rather than treating legal certainty as an accessory to fiscal modelling, the study conceptualizes it as a decisive determinant of contract sustainability and investor trust. By examining how the gross split regime structures rights and obligations, allocates risk, and situates itself within the hierarchy of legal norms, the article contributes a doctrinal lens that complements existing economic analyses. It further demonstrates that even apparently efficient fiscal arrangements may underperform if institutional guarantees are insufficient to anchor expectations across the lifespan of petroleum projects.

2. Methods

This study employs a normative legal research design, supported by comparative and doctrinal analyses, to evaluate whether gross-split production-sharing contracts provide adequate legal certainty for upstream oil and gas investment. Normative legal research is appropriate because the central questions of this article concern not empirical performance, but the coherence, stability, and enforceability of legal norms governing contractual arrangements.[11] Within this framework, legal sources are examined to determine how contractual principles, state authority, and investor rights are articulated and operationalized in the gross split regime.

Primary legal materials consist of statutory provisions and regulatory instruments relevant to upstream petroleum governance, particularly those governing the design and implementation of gross split contracts. Special attention is paid to the hierarchical position of these instruments, as the degree of legal certainty depends in part on whether critical fiscal and contractual components are embedded in primary legislation or merely in subordinate regulations. These sources are interpreted doctrinally to identify how they allocate risk, define contractual obligations, and establish enforcement mechanisms.[12] Secondary legal materials include peer-reviewed academic publications from the last five years that examine contractual regimes, fiscal reform, investor protection, and legal certainty in extractive industries. These scholarly analyses provide theoretical grounding and comparative benchmarks for understanding how similar contractual models are structured in other jurisdictions and how legal rules shape investment expectations. The combination of primary and secondary materials enables a comprehensive evaluation of both the formal legal architecture and its broader implications for contractual stability.

In this study, the normative legal method is operationalized through several complementary approaches. A statute approach is used to assess the hierarchical status and interpretive coherence of regulations governing gross split contracts within the national legal

[11] Hidayati, I., & Tan, W. (2025). Assessing justice in sustainable mobility transitions: narratives from transport policies in Jakarta. *Journal of Environmental Policy and Planning*. https://doi.org/10.1080/1523908X.2025.2452923

[12] Rizal, M. N., & Sri Murwani. (2025). Analysis of the Impact of Gross Split Production Sharing Contracts in the Upstream Oil and Gas Sector on State Revenue. *Indonesian Treasury Review Jurnal Perbendaharaan Keuangan Negara Dan Kebijakan Publik*, *10*(1), 24–38. https://doi.org/10.33105/itrev.v10i1.1006

system. A doctrinal (conceptual) approach clarifies the scope and meaning of legal certainty in the context of natural resource governance, particularly with respect to the clarity of rules, the durability of commitments, and the predictability of enforcement. A comparative approach contrasts Indonesia's contractual model with analogous regimes in other petroleum-producing jurisdictions to highlight similarities, divergences, and potential lessons. The selection of legal materials follows a purposive strategy, prioritizing primary legislation, regulatory instruments, and peer-reviewed works that directly address contractual certainty, fiscal structure, and investor expectations. These materials are analyzed thematically across four categories hierarchy of norms, investor protection, risk allocation, and mechanisms of contractual stabilization thereby enabling a systematic interpretation of how the gross split framework performs across core dimensions of legal certainty. Because this research does not involve empirical data collection, findings are derived through interpretive reasoning grounded in authoritative legal sources while informed by contemporary scholarly debates. A critical synthesis integrates doctrinal interpretation with comparative insights to evaluate whether the current gross-split regime satisfies the fundamental elements of legal certainty clarity, stability, and enforceabilityand to identify potential regulatory reforms. This methodological orientation ensures that conclusions are normatively grounded while remaining attentive to the practical realities of investment decision-making in the upstream oil and gas sector.[13]

3. Results and Discussion

3.1. Legal certainty as a doctrinal framework for resource contracts

Legal certainty constitutes a foundational principle of modern legal systems and a central element of the rule of law. In the context of resource governance, it operates as a normative guarantee that state power will be exercised in a predictable, transparent, and non-arbitrary manner over time. Scholars generally conceptualize legal certainty along three interconnected dimensions: the clarity of rules, the stability of norms, and the credibility of enforcement. Clarity refers to the ability of rational actors to understand rights and obligations ex ante; stability concerns the likelihood that those rules will remain consistent over a reasonable period; and credibility concerns whether courts or administrative bodies will enforce rules impartially when disputes arise.[14] Together, these dimensions transform formal legal texts into reliable expectations on which long-term economic behavior such as upstream oil and gas investment can be rationally based.

A significant strand of the literature emphasizes that legal certainty is not merely a technical drafting attribute, but a structural feature tied to the hierarchy of legal norms. Rules enacted at higher levels of the legal system such as parliamentary statutes or constitutional provisions enjoy greater durability because amendment requires broader political deliberation. Conversely, regimes dominated by executive regulation may permit rapid

[13] Aprizal, M. F., Juanda, B., Ratnawati, A., & Muin, A. (2022). Indonesian Upstream Oil & Gas Governance for Sustainable Innovation. *Jurnal Manajemen Dan Organisasi (JMO)*, *13*(1), 48–60.

[14] Syera Fatria, D., Sagala, P., & Widodo, P. (2025). The Rule Of Law And Economic Stability Amid Global Threats To National Security. *Morfai Journal) Issn*, *6*(1), 2808–6635. Https://Doi.Org/10.54443/Morfai.V6i1.4835

changes that undermine investor expectations and jeopardize contractual stability.[15] In this sense, the legal architecture surrounding petroleum contracts matters as much as the contractual clauses themselves. The location of rules within the legal hierarchy signals to investors whether the state intends to treat contractual terms as policy choices that can shift readily, or as binding commitments constrained by constitutional limits and legislative oversight.

Another core component of legal certainty is the doctrine of legitimate expectations, which recognizes that investors structure their commitments on the assumption that states will not fundamentally alter agreed frameworks without fair process or proportionate justification. While governments retain sovereign authority to regulate in the public interest, abrupt or retroactive interventions can violate these expectations and invite disputes over compensation or renegotiation. Comparative research in extractive industries shows that when contractual changes follow transparent procedures such as prior consultations, impact assessments, and prospective application investors tend to adapt without perceiving a breach of trust. Conversely, discretionary or unpredictable interventions increase perceived political risk and elevate required rates of return.

According to Prahoro Nurtjahyo, an expert at the Ministry of Energy and Mineral Resources, gross split was first introduced in India's oil and gas industry under the name Production Sharing Contract (PSC) gross split. The Indonesian government then adopted and adapted it based on a study of the oil industry in Indonesia. The profit-sharing scheme desired by the Government is one that is oriented towards the efficiency and effectiveness of oil and gas exploitation, providing benefits for both parties (the Government and K3S), but must still maintain sovereignty over the management of natural resources and have economic value (providing benefits that can be utilised as much as possible by the Indonesian people). According to Jafee Arizona Suardin, the changes to the gross split profit sharing scheme were made based on evaluations and discussions conducted by the government with contractors (contractors who have conducted oil and gas business activities in Indonesia), and after several discussions, it was decided to make changes and revise several articles. The government considered that since gross split is a new scheme, it is necessary to conduct periodic evaluations of shortcomings and input from contractors, without disregarding the principles of oil and gas management, in order to find appropriate regulations. When linked to the theory of legal certainty expressed by Gustav Radburch, that in order to create legal certainty, a law must be made in a manner that is[16]

A related theoretical debate concerns how legal certainty interacts with regulatory flexibility. Critics warn that fixing fiscal terms too rigidly can constrain governments' capacity to respond to market volatility, environmental imperatives, or equity concerns. However, contemporary scholarship suggests that the true tension is not between certainty and flexibility, but between predictable flexibility and arbitrary flexibility. Well-designed regimes

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[15] De Sá Ribeiro, M. R. (2018). Legal regulation of petroleum upstream in Brazil. In Energy Law and Regulation in Brazil (pp. 1–26). Springer International Publishing. https://doi.org/10.1007/978-3-319-73456-9_1

[16] Prahoro Nurtjahyo, *Responding to Doubts About Gross Split*, Jakarta: Ministry of Energy and Mineral Resources, 2017, p. 6

incorporate stabilization clauses, renegotiation triggers, and transitional provisions that allow policy evolution while preserving the integrity of existing commitments. Such mechanisms enable states to recalibrate contractual arrangements without eroding confidence in the rule of law.[17] In petroleum governance, therefore, legal certainty is best understood not as immutability, but as the assurance that change will occur through lawful, foreseeable, and procedurally fair channels.

Enforcement institutions play a decisive role in transforming formal promises into credible commitments. Even the most carefully drafted frameworks may fail if courts lack independence, regulators operate inconsistently, or dispute-resolution mechanisms are inaccessible. Empirical studies demonstrate that jurisdictions with transparent enforcement, independent judicial review, and recognized arbitration arrangements exhibit lower perceived political risk, regardless of whether their fiscal regimes are generous or stringent.[18] In this regard, legal certainty is both doctrinal and institutional: it emerges from the interplay among legal hierarchy, contractual design, administrative practice, and institutions' capacity to resolve disputes impartially. Evaluating the Indonesian gross split PSC through this doctrinal lens, therefore, enables a more nuanced assessment of whether the regime provides not only fiscal clarity, but also the predictable and enforceable commitments required for sustainable upstream investment. Taken together, this doctrinal framework provides a lens through which the Indonesian gross split PSC can be evaluated, not only in terms of its fiscal simplicity but also in its capacity to deliver predictable and enforceable commitments over time. The following sections apply this framework to analyze the architecture, risk dynamics, and comparative position of the gross split regime.

3.2. Legal certainty and the architecture of gross split contracts

Building on this conceptual foundation, the first empirical application concerns the legal architecture of the gross split contract itself. The discussion examines how the placement of key fiscal provisions within the hierarchy of norms shapes the regime's overall reliability. The findings of this study indicate that the architecture of gross split production sharing contracts (PSCs) presents an ambivalent relationship with legal certainty. On one hand, the elimination of cost recovery and the introduction of fixed production splits offer greater clarity in fiscal calculation, potentially reducing disputes related to cost verification and auditing. On the other hand, the legal basis of the regime remains rooted mainly in ministerial regulations, which occupy a lower position within the hierarchy of norms. This structural placement undermines the degree of legal durability traditionally expected in long-term investment contracts, particularly in the upstream petroleum sector, where investment horizons frequently extend across multiple political cycles.[19]

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[17] Brandão, F., Schoneveld, G., Pacheco, P., Vieira, I., Piraux, M., & Mota, D. (2021). The challenge of reconciling conservation and development in the tropics: Lessons from Brazil's oil palm governance model. *World Development*, *139*. https://doi.org/10.1016/j.worlddev.2020.105268

[18] Magalhães, A. S., & Domingues, E. P. (2014). Blessing or curse: Impacts of the Brazilian Pre-Salt oil exploration. *EconomiA*, *15*(3), 343–362. https://doi.org/10.1016/j.econ.2014.11.002

[19] Hidayat, J. R., Sri, U., Wuryandari, W., & Djaelani, F. A. (2025). Changes In The Scheme From Production Sharing Contracts To Gross Split For Upstream Oil And Gas Investments In Indonesia. *Journal of Law, Politic and Humanities*, *6*(1), 2025. https://doi.org/10.38035/jlph.v6i1

Several studies emphasize that legal certainty is not only a function of clarity but also of stability, hierarchy, and enforceability. Norms embedded in primary legislation or higher-order instruments tend to be perceived as more credible, because their amendment requires broader deliberative processes and typically provides transitional safeguards for existing investors.[20] In contrast, regulatory mechanisms based on executive instruments may be altered unilaterally, thereby raising the risk of change-in-law effects without adequate compensation or renegotiation rights. Within the gross split regime, the base split percentages and adjustment variables are determined primarily by executive authority, reinforcing investor perceptions that key economic components remain exposed to policy volatility rather than being anchored by statutory protection. This situation suggests a partial realization of legal certainty. The regime improves transparency and administrative simplicity but lacks a fully institutionalized legal backbone. As such, gross split PSCs may provide certainty in calculation but less certainty in continuity—an important distinction for investors who evaluate projects based on stability throughout the contractual life cycle.

3.3. Risk allocation, predictability, and investor expectations

Beyond its structural design, the gross split PSC also reshapes the distribution of financial and operational risks. This section explores how the shift in risk allocation interacts with investor expectations and the broader notion of legal predictability. A second key result relates to the interaction between risk allocation and investor expectations. Under the cost-recovery regime, approved expenditures were reimbursable through production entitlements, thereby providing downside protection against cost overruns or suboptimal field performance. By contrast, the gross split regime places the entire burden of capital and operating expenditure on the contractor, whose returns depend solely on production shares adjusted by variable and progressive factors.

This redistribution of risk is defensible from an efficiency standpoint, yet it increases the weight borne by investors and therefore heightens sensitivity to legal stability. Where fiscal outcomes depend significantly on administrative discretion such as adjustments linked to technology, field maturity, or environmental conditions contractors may face uncertainty not because of geological unknowns, but because of regulatory discretion. Empirical literature on petroleum investment consistently demonstrates that such perceived uncertainty can elevate discount rates, delay investment decisions, or divert capital to jurisdictions with more explicit long-term commitments.[21]

Moreover, the absence of explicit stabilization clauses or legislative guarantees increases exposure to adverse shifts in regulatory, tax, or production-sharing terms. In normative legal theory, this absence constitutes a shortfall in the predictability dimension of legal certainty, because investors cannot confidently rely on the immutability of core contractual terms

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[20] Rizal, M. N., & Sri Murwani. (2025). Analysis of the Impact of Gross Split Production Sharing Contracts in the Upstream Oil and Gas Sector on State Revenue. *Indonesian Treasury Review Jurnal Perbendaharaan Keuangan Negara Dan Kebijakan Publik*, *10*(1), 24–38. https://doi.org/10.33105/itrev.v10i1.1006

[21] Hutahayan, B., Fadli, M., Amimakmur, S. A., & Dewantara, R. (2024b). Investment decision, legal certainty and its determinant factors: evidence from the Indonesia Stock Exchange. *Cogent Business and Management*, *11*(1). https://doi.org/10.1080/23311975.2024.2332950

throughout the investment period. As a result, although gross split PSCs simplify fiscal accounting, they simultaneously create structural uncertainty unless complemented by mechanisms that temper executive discretion with predictable rules and credible remedies.

In the context of investment, particularly in strategic and high-risk sectors such as natural resources, law functions not only as a normative instrument that regulates the behaviour of parties, but also as a mechanism of control over economic, political and regulatory uncertainty. Through the approach of legal control objects, it can be understood that the law is consciously directed to control certain aspects of contractual relationships in order to create stability, predictability, and sustainability of investment. The three most crucial objects of legal control in investment contracts are risk allocation, legal certainty, and investor expectations. These three do not stand alone but are functionally interrelated in shaping a healthy and equitable investment climate.

Risk allocation is the first and most fundamental object of legal control in investment contracts. Risk is an inherent element in every economic activity, especially in long-term investments involving technical, financial and regulatory uncertainties. From a contract law perspective, risk is not understood solely as an economic phenomenon, but as a normative variable that can and must be regulated. The law plays a role in controlling risk by determining who bears certain risks, the extent to which those risks can be transferred, and what mechanisms are available if those risks materialise. Through contract clauses, legislation, and administrative practices, the law creates a binding and enforceable risk allocation structure.

In modern contract theory, as proposed by Hart and Moore, contracts are understood as a 'reference point' that establishes the division of risks and expectations of the parties from the outset. When risk allocation is clearly and rationally formulated, contracts become not only a means of transaction, but also a means of stabilising legal relationships in the face of future uncertainty. In the context of natural resource investment, risk allocation typically covers exploration risk, operational risk, commodity price risk, and policy change risk. Through legal control, the state normatively determines that most technical and commercial risks are borne by investors, while the state retains control over sovereignty and public policy risks. However, disproportionate legal control over risk allocation can lead to contractual imbalances that result in legal uncertainty and a decline in investment interest.

An unbalanced allocation of risk indicates a failure of the law to perform its control function. When all risk is transferred to investors without adequate corrective mechanisms, the law loses its legitimacy as a guardian of balance. In such situations, contracts remain formally valid but are substantively fragile. Therefore, legal control over risk allocation must be understood as an effort to maintain a balance between the interests of the state and those of investors, not as a tool for unilateral domination. This principle is in line with Salacuse's view that the success of investment contracts is largely determined by how risks are allocated fairly and predictably.

The next object of legal control is legal certainty. Legal certainty is a central concept in legal theory and is a key prerequisite for the functioning of contract and investment systems. In the context of legal control, legal certainty serves as a mechanism to stabilise expectations and reduce unnecessary uncertainty. Legal certainty does not only mean the existence of written rules, but also includes consistency in application, clarity of norms, and protection against arbitrary actions. Humberto Ávila explains that legal certainty consists of the elements of predictability, stability, and reliability of legal actions, all of which are highly relevant in long-term investment relationships. In investment contracts, legal certainty is controlled through various normative instruments, including laws, implementing regulations, and the contract clauses themselves. The law establishes a framework that allows investors to predict the legal consequences of their business actions and decisions. When the law fails to provide certainty, investment risk increases significantly, even when economic opportunities remain promising. This shows that legal certainty is not merely an abstract value, but a concrete economic factor.

3.4. Comparative perspectives on contractual stability

To situate Indonesia's experience within a broader policy landscape, the analysis turns to international comparators. Examining jurisdictions with diverse institutional traditions offers insight into how legal certainty is achieved or undermined under different contractual regimes. The comparative analysis reinforces the conclusion that contractual stability is most effectively achieved when fiscal design is accompanied by strong legal anchoring and transparent institutional practice. Experiences across petroleum-producing jurisdictions demonstrate that clarity of fiscal provisions alone is insufficient; it requires support from durable legal hierarchies, predictable regulatory behavior, and credible dispute-resolution mechanisms. Where contractual frameworks are embedded in primary legislation or long-standing policy instruments, investors are better able to form expectations about how states will exercise regulatory authority over time, even in the presence of policy reform or market volatility. This combination of legal embedding and procedural transparency functions as a stabilizing device, reducing perceptions of arbitrary change and aligning government discretion with the principle of legitimate expectations.

The experience of five petroleum-producing jurisdictions provides a helpful lens for evaluating Indonesia's current trajectory. Malaysia and Thailand illustrate how relatively stable institutional traditions, supported by clear statutory guidance, can maintain investor confidence even as fiscal parameters evolve incrementally. Brazil and Norway show that legislative consolidation and phased policy adaptation can reconcile state objectives with contractual sanctity, thereby supporting long-term capital commitments. Conversely, Nigeria highlights the risks that arise when reform cycles occur without consistent implementation or legal continuity, resulting in persistent uncertainty and underinvestment. Taken together, these cases suggest that Indonesia's gross split regime would benefit more from targeted institutional reinforcement—particularly in strengthening the legal hierarchy, standardizing administrative practice, and building stable channels for policy adjustment.[22]

1. Malaysia: stability through contractual clarity

Malaysia maintains a PSC framework in which major fiscal and contractual parameters are codified through statutory provisions and consistently interpreted by specialized state agencies. Although adjustments may be negotiated on a case-by-case basis, they remain

[22] Kroeksakul, P., Srisuwan, P., Uaesukpakdee, T., & Panichpaisarn, J. (2024). An Interactive Behavior of Soil Moisture Influences the Concentration of Arsenic in the Acidic Soil of the Plow Layer of the Central Region of Thailand. *Journal of Ecological Engineering*, *25*(8), 168–178. https://doi.org/10.12911/22998993/190131

embedded in predictable administrative procedures, contributing to relatively high investor confidence. In practice, PETRONAS acts as both a resource custodian and a contractual counterparty, applying standardized contractual templates that constrain discretionary reinterpretation while allowing technical flexibility in project implementation. The Malaysian model illustrates that contract-based flexibility can coexist with legal certainty when decision-making authority is transparent and consistently exercised.[23]

At the same time, the Malaysian regime shows that institutional continuity can be as important as legal codification. Studies indicate that the stability of upstream governance is supported by a long-standing administrative culture in which regulatory roles are clearly delineated and interagency coordination minimizes conflicting interpretations. Investors report confidence not only because of the clarity of PSC provisions, but also because contractual amendments typically follow consultative procedures, including cost–benefit assessment and structured negotiation rather than unilateral directives. This institutional predictability reduces the perceived risk of changes in the law and reinforces the credibility of state commitments over the life of petroleum projects.[24]

Recent research further suggests that Malaysia's approach to fiscal reform has been incremental rather than disruptive, allowing the government to adapt PSC terms to market realities without undermining contractual sanctity. Adjustments to profit-sharing factors, decommissioning obligations, and local-content provisions have generally been introduced through negotiated addenda or new bidding rounds, while preserving protections for existing investors under previously signed contracts. As a result, Malaysia has maintained competitive attractiveness despite global volatility in oil prices and energy transition pressures—demonstrating how gradual policy evolution, anchored in statutory and contractual clarity, can sustain both government objectives and investor confidence.[25]

2. Thailand: hybrid fiscal mechanisms and predictable governance

Thailand operates a hybrid upstream regime that combines royalty–tax elements with contractual arrangements, producing a fiscal framework that is neither fully concessionary nor purely contractual. This hybrid design is anchored in long-standing petroleum legislation that delineates state authority, budgetary obligations, and operating standards with relative precision. Although contractual instruments remain important for defining project-specific commitments, the underlying statutory structure provides a stable baseline against which fiscal adjustments and administrative decisions are made. As a result, investors perceive the

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[23] Usman Isyaku, M., Abdulsalam, D. O., Kamba, M. K., & Tanko, G. (2025). Effect Of Petroleum Business Arrangements And Tax Instruments On Investment Climate Of Marginal Oil Fields In Nigeria. *International Journal Of Research And Innovation In Social Science (Ijriss)*, *9*(4). Https://Doi.Org/10.47772/Ijriss

[24] Hoque, M. E., Low, S. W., & Zaidi, M. A. S. (2020). The effects of oil and gas risk factors on Malaysian oil and gas stock returns: Do they vary? *Energies*, *13*(15). https://doi.org/10.3390/en13153901

[25] Muniandy, S., Ismail, S., & Said, E. (2023). Revenue/cost production sharing contract (psc) fiscal regime on marginal gas fields in Malaysia: Case study. *Progress in Energy and Environment*, *26*, 11–18. https://www.akademiabaru.com/submit/index.php/progee

system as predictable even when market conditions require targeted revisions to incentives or cost-management provisions.[26]

Beyond its legal structure, Thailand's upstream governance benefits from institutional routines that reduce ambiguity in regulatory decision-making. Dedicated regulatory bodies maintain clear procedures for licensing, environmental approvals, and compliance monitoring, which are applied with a degree of consistency across operators. Studies show that disputes are more often resolved through negotiated clarification rather than adversarial litigation, reflecting an administrative culture that prioritizes continuity over confrontation. This procedural predictability combined with transparent publication of rules and timelinescontributes to investor perceptions that regulatory discretion, while present, is not arbitrary and remains bounded by recognizable norms.[27]

Recent scholarship also highlights Thailand's gradualist approach to reform, particularly in response to energy security and energy-transition pressures. Instead of enacting sweeping regulatory overhauls, policymakers have tended to introduce incremental modifications to royalty rates, cost deductions, and local-content rules, often following public consultation and structured policy review. Existing contracts typically continue under earlier terms, while new bidding rounds incorporate updated provisions thereby preserving legal continuity alongside policy evolution. This approach has helped Thailand maintain a competitive but stable upstream environment and demonstrates how hybrid fiscal regimes can achieve legal certainty when embedded within disciplined legislative frameworks and consistent administrative practices.[28]

3. Brazil: legislative embedding and long-term certainty

Brazil's upstream petroleum regime is often cited as an example of legislative embedding, in which the core principles governing resource ownership, fiscal participation, and contractual obligations are articulated directly in national statutes. The adoption of production-sharing legislation in the late 2000s, followed by subsequent refinements, established a legal architecture that clearly distinguishes state prerogatives from investor entitlements. Rather than relying primarily on executive regulations, Brazil places key fiscal parameters such as government take components, bidding requirements, and obligations on state participation within parliamentary statutes that require broad political consensus to amend. This statutory consolidation has enhanced predictability by ensuring that changes to the regime are deliberate, transparent, and typically accompanied by transitional provisions.[29]

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[26] Wangmanee, P., & Kaowiwattanakul, S. (2024). The Effect of Using the Contemplative Approach to Enhance Speaking and Critical Thinking Skills in the EFL Undergraduate Literature Classroom. *Theory and Practice in Language Studies*, *14*(4), 966–975. https://doi.org/10.17507/tpls.1404.05

[27] Morgunova, M., & Shaton, K. (2022). The role of incumbents in energy transitions: Investigating the perceptions and strategies of the oil and gas industry. *Energy Research and Social Science*, *89*. https://doi.org/10.1016/j.erss.2022.102573

[28] Kroeksakul, P., Srisuwan, P., Uaesukpakdee, T., & Panichpaisarn, J. (2024). An Interactive Behavior of Soil Moisture Influences the Concentration of Arsenic in the Acidic Soil of the Plow Layer of the Central Region of Thailand. *Journal of Ecological Engineering*, *25*(8), 168–178. https://doi.org/10.12911/22998993/190131

[29] De Sá Ribeiro, M. R. (2018). Legal regulation of petroleum upstream in Brazil. In *Energy Law and Regulation in Brazil* (pp. 1–26). Springer International Publishing. https://doi.org/10.1007/978-3-319-73456-9_1

Institutional design reinforces this legislative foundation. Specialized agencies, such as the National Agency of Petroleum, Natural Gas, and Biofuels (ANP), administer licensing, monitor compliance, and manage bidding processes in accordance with publicly available rules. Studies indicate that Brazil's regulatory reforms typically follow structured consultation phases, during which industry feedback and economic modelling inform policy adjustments. Even when contracts are renegotiated, the process usually occurs through defined legal channels, thereby preserving the perception that the state's discretionary authority is exercised within clear legal limits. This institutional interplay between statutory clarity and procedurally disciplined administration has been associated with greater investor confidence in Brazil's pre salt fields, where capital intensity and project duration magnify the value of legal stability.

More recently, Brazil has demonstrated that legal certainty can coexist with policy evolution. Reforms introduced in response to market volatility and fiscal pressures have adjusted bidding terms, local-content obligations, and risk-sharing mechanisms without retroactively undermining existing agreements. Scholars note that the ability to recalibrate policy while preserving contractual sanctity is a key factor sustaining investor interest during periods of price fluctuations and accelerating debates on the energy transition. By embedding contractual principles in legislation, clarifying administrative responsibilities, and sequencing reforms through predictable procedures, Brazil presents a model in which state objectives and investor expectations can be reconciled over long time horizons offering relevant insights for jurisdictions seeking to strengthen contractual reliability without constraining sovereign policy space.[30]

4. Norway: strict rule of law and transparency

Norway's upstream petroleum regime is widely regarded as an institutional benchmark because it rests on a comprehensive legal framework that is both clear and deeply embedded within the broader rule-of-law system. Core principles governing resource ownership, licensing, taxation, and state participation are codified in dedicated petroleum legislation and complemented by detailed regulations that are publicly available and regularly updated. Importantly, reforms are typically preceded by white papers, stakeholder consultations, and parliamentary debate, ensuring that changes emerge through democratic processes rather than executive fiat. This legal and procedural discipline substantially reduces the possibility of abrupt regulatory shifts and provides investors with a stable foundation for long-term decision-making.[31]

The credibility of Norway's system is reinforced by the role of independent and technically competent institutions, including the Ministry of Petroleum and Energy and the Norwegian Petroleum Directorate. These agencies apply rules consistently, disclose decisions transparently, and maintain extensive data systems that allow operators to anticipate regulatory expectations. Studies highlight that the predictability of enforcement not merely the content of rules has been crucial to sustaining investor trust, particularly in offshore fields

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[30] Brandão, F., Schoneveld, G., Pacheco, P., Vieira, I., Piraux, M., & Mota, D. (2021). The challenge of reconciling conservation and development in the tropics: Lessons from Brazil's oil palm governance model. *World Development*, *139*. https://doi.org/10.1016/j.worlddev.2020.105268

[31] Overland, I. (2017). Norway: Public debate and the management of petroleum resources and revenues. In *Public Brainpower: Civil Society and Natural Resource Management* (pp. 217–245). Springer International Publishing. https://doi.org/10.1007/978-3-319-60627-9_13

characterized by long development timelines and substantial capital intensity. Even when environmental standards tighten or taxation is recalibrated, transitions are phased, negotiated, and accompanied by clear guidelines, thereby preserving the legitimacy of regulatory change.[32]

Recent literature also emphasizes how Norway reconciles policy ambition with contractual reliability. In response to climate objectives and fluctuating oil prices, fiscal measures have been adjusted to incentivize investment while maintaining consistency with established legal principles. Temporary tax relief during downturns, gradual revisions to licensing terms, and transparent decommissioning rules have allowed the state to adapt without undermining prior commitments. This combination of transparency, institutional competence, and legal continuity has produced exceptionally low perceptions of political and regulatory risk illustrating that robust rule-of-law traditions can function as a structural stabilizer for petroleum governance and a model for jurisdictions seeking durable investment climates.[33]

5. Nigeria: lessons from regulatory volatility

Nigeria offers a contrasting perspective in which repeated policy reforms and fragmented governance structures have historically generated elevated levels of legal and regulatory uncertainty, before the enactment of more recent petroleum legislation, overlapping rules, and frequent attempts at reform created ambiguity regarding government take, community obligations, and fiscal incentives. Investors often faced difficulty predicting how contractual terms would evolve or how consistently they would be enforced across different administrative bodies. As a result, the perceived risk premium for operating in Nigeria tended to exceed that of peer jurisdictions, particularly for marginal fields and complex offshore projects where capital exposure is significant.[34]

Institutional instability has amplified these challenges. Studies show that regulatory responsibilities are sometimes dispersed among multiple agencies with differing priorities, leading to inconsistent interpretations and delays in project approvals. Dispute resolution has not always provided swift or predictable outcomes, encouraging firms to rely more heavily on renegotiation or political channels rather than legal processes. This environment reduces the credibility of state commitments and increases the likelihood that fiscal incentives are offset by uncertainty about their long-term durability. Even where reforms aim to improve competitiveness, the absence of sustained implementation has limited their effectiveness in restoring investor confidence.[35]

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[32] Engen, O. A., Lindøe, P. H., & Sverre Braut, G. (2023). Coping with different system logics of standardization in regulatory regimes. Norwegian offshore experience. *Safety Science, 161*. https://doi.org/10.1016/j.ssci.2023.106079

[33] Gociu, A. (2021). The Norwegian Petroleum Regulatory Framework and the Transition to Green Energy. *Queen Mary Law Journal*. https://doi.org/10.26494/QMLJ72468

[34]Usman Isyaku, M., Abdulsalam, D. O., Kamba, M. K., & Tanko, G. (2025). Effect Of Petroleum Business Arrangements And Tax Instruments On Investment Climate Of Marginal Oil Fields In Nigeria. *International Journal Of Research And Innovation In Social Science (Ijriss)*, *9*(4). Https://Doi.Org/10.47772/Ijriss

[35] Peace Benjamin, N. (2025). Regulatory Compliance And Government-Business Relations In The Oil And Gas Sector: Lessons From Nigeria For United States Energy Policy And Global Trade (2022).

At the same time, Nigeria illustrates that reform without legal consolidation can perpetuate uncertainty. While policy initiatives have sought to modernize fiscal terms and clarify host-community obligations, many of these measures have been introduced in rapid succession, sometimes without adequate transition provisions for existing contracts. Scholars argue that such volatility can discourage new exploration and shift investment toward short-cycle projects that require limited capital and carry minimal exposure to policy shifts. Consequently, the Nigerian experience underscores the importance of embedding reforms within coherent statutory frameworks, aligning agency responsibilities, and strengthening dispute-resolution mechanisms lessons that are directly relevant for countries seeking to enhance legal certainty in the upstream petroleum sector.[36]

3.4. Lessons for Indonesia and implications for gross split PSCs

The comparative evidence indicates that Indonesia's challenge is not primarily the fiscal concept of the gross split PSC, but the institutional context in which it operates. Legal certainty appears strongest where contractual frameworks are anchored in higher-order legislation, supplemented by transparent and disciplined administrative practices. In the current regime, key fiscal elements of gross split PSCs remain largely delegated to ministerial regulation, exposing investors to the risk that material terms may change without parliamentary oversight. Strengthening the legal hierarchy by elevating essential principles, such as stabilization mechanisms, dispute resolution, and baseline production splits, into statutory instruments would reduce the perception that contractual conditions are contingent on short-term administrative preferences. Doing so would align Indonesia more closely with jurisdictions where legislative embedding functions as a structural stabilizer of investor expectations.

A second implication concerns the balance between risk allocation and predictability. The gross split regime intentionally shifts financial and operational risks to contractors by eliminating cost recovery; however, such risk transfer is normatively defensible only when paired with credible protections against arbitrary regulatory shifts. Introducing clearly defined change-in-law provisions, standardized renegotiation triggers, and time-bound transitional clauses would mitigate exposure without unduly constraining sovereign regulatory space. Comparative experience indicates that investors are more tolerant of evolving policy objectives when adjustment pathways are transparent and procedurally fair, rather than when they are discretionary or retroactive. For Indonesia, embedding these protections would transform the gross split PSC from a fiscally efficient instrument into one that is also contractually resilient.[37]

Third, institutional practice must reinforce not dilute the formal rules. Countries that exhibit durable investment climates tend to pair legislative clarity with administrative

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International Journal Of Latest Technology In Engineering, Management & Applied Science (Ijltemas), *Xiv*(X). Https://Doi.Org/10.51583/Ijltemas

[36] Ducol, B. (2017). Peter R. Neumann: Radicalized: New Jihadists and the Threat to the West (London: I.B. Tauris, 2016). *Democracy and Security*, *13*(4), 395–396. https://doi.org/10.1080/17419166.2017.1406211

[37] Galvão, C., Costa, H. K. de M., Pereira, E. G., Santos, E. M. dos, & Ramos, D. S. (2024). Natural Gas Power Plants in the System Security. *Energy and Power Engineering*, *16*(04), 151–178. https://doi.org/10.4236/epe.2024.164008

coherence, including consistent interpretation by specialized agencies, predictable approval timelines, and accessible channels for grievance resolution. In Indonesia, strengthening coordination among sectoral regulators, clarifying mandates, and publishing guidance on the application of adjustment factors in practice would significantly reduce informational uncertainty. Equally important is the enhancement of dispute-resolution pathways, both domestic and arbitral, to ensure that contractual disagreements are resolved through legal rather than political negotiation. As comparative studies suggest, institutional credibility can compensate for fiscal rigidity, whereas weak enforcement can undermine even well-designed legal frameworks.[38] Finally, policy reform should proceed incrementally and transparently, preserving legitimate expectations while enabling the state to respond to evolving energy and climate imperatives. Rather than periodic overhauls, phased revisions tied to objective indicators such as price volatility, technological shifts, and field maturity can be signaled in advance and implemented prospectively. This approach mirrors the reform trajectories seen in Brazil, Malaysia, and Norway, where stability derives as much from the manner of change as from the content of rules. For Indonesia, the key lesson is therefore not to abandon the gross split design, but to consolidate it through legal elevation, predictable adjustment procedures, and institution-building that embeds transparency and accountability into everyday regulatory practice. If pursued coherently, these steps would enhance legal certainty while preserving the flexibility necessary to manage long-term resource governance amid market and policy transitions.[39]

3.4. Policy and Legal Reform Options

The preceding analysis suggests that the gross split production-sharing contract is not inherently incompatible with legal certainty; rather, its effectiveness depends on the institutional and juridical environment in which it operates. What undermines predictability is not the fiscal architecture per se. Still, the extent to which contractual terms are embedded within a clear hierarchy of norms, interpreted consistently by specialized agencies, and supported by credible dispute-resolution mechanisms. Comparative experience demonstrates that similar contractual models can perform very differently depending on whether they are situated within robust rule-of-law settings or exposed to frequent regulatory intervention. Thus, policy debates surrounding the gross split regime should shift from questioning the model's existence to examining the conditions under which it can function as a reliable instrument of resource governance.

Reform, therefore, should not aim at wholesale replacement of the regime, but at strengthening those structural elements that convert fiscal simplicity into predictable and enforceable commitments. In line with international practice, improvement is more likely to result from institutional consolidation than from repeated redesigns of fiscal formulas. When governments clarify legal hierarchy, standardize regulatory procedures, and create transparent pathways for policy adjustment, investor perceptions of risk decline even if the

[38] de Mendonca, M. J. C., Pereira Junior, A. O., Pessanha, J. F. M., Pereira, R. M., & Hunt, J. D. (2025). Measuring the Economic Impact of Pre-Salt Layer on the Productivity of the Oil and Natural Gas Sector. *Resources*, *14*(2). https://doi.org/10.3390/resources14020032.

[39] Palazzo Almada, L. (2013). Oil & Gas Industry In Brazil: A Brief History And Legal Framework. Panorama Of Brazilian Law, 1(1).

state continues to exercise regulatory authority. Seen through this lens, four complementary reform pathways emerge: elevating core fiscal terms into statutory instruments, institutionalizing structured stabilization mechanisms, enhancing administrative coherence and dispute resolution, and sequencing policy change through transparent transition frameworks. Together, these pathways seek not to constrain sovereignty, but to transform regulatory discretion into rule-governed discretion that remains compatible with the expectations of long-term investors.[40]

One of the main issues in the implementation of Gross Split is regulatory changes that affect the distribution of proceeds, either through variable or progressive adjustments. These changes are often made through ministerial regulations that are hierarchically below the law, raising questions about their binding force and long-term stability. From a legal certainty perspective, this situation creates uncertainty because contractors must face the possibility of significant changes to the agreed economic structure of the contract. Legal reform in this context requires strengthening the normative basis of the Gross Split at a higher regulatory level, so that policy changes cannot be made unilaterally.

Legal reform must also consider contract stabilisation mechanisms as instruments for protecting legal certainty. In international investment contracts, stabilisation clauses or adjustment mechanisms (economic equilibrium clauses) are used to maintain contract balance when significant regulatory changes occur. In Gross Split contracts, the absence or weakness of stabilisation mechanisms can result in all policy change risks being borne by the contractor. This is contrary to the principle of contractual fairness and has the potential to reduce the attractiveness of investment. Therefore, a rational legal reform option is to explicitly integrate stabilisation mechanisms into the Gross Split contract framework. In addition to contractual aspects, policy reform also needs to focus on institutional consistency. Legal certainty is determined not only by written norms, but also by administrative practices and coordination between institutions. In the upstream oil and gas sector, overlapping authorities between regulators, operators, and fiscal agencies often cause uncertainty in contract implementation. Policy reform must ensure alignment between technical, fiscal, and legal policies so that contractors have certainty in carrying out their operational activities. Without institutional consistency, the legal certainty promised by the Gross Split scheme will be difficult to achieve.

Legal reform regarding legal certainty in Gross Split contracts also needs to be placed within the framework of sustainable development. The state has an obligation to manage natural resources for the greatest prosperity of the people, but this obligation cannot be separated from the need for investment. Legal certainty serves as a bridge between public interests and investor interests. Policy reforms that ignore legal certainty have the potential to hamper investment, which ultimately harms national interests. Therefore, the choice of reform must be integrative, combining economic, legal and social objectives in a balanced manner.

In the perspective of legal certainty theory, as stated by Humberto Ávila, the law must be able to provide predictability and stability so that legal subjects can plan their actions

[40] Øvald, C. B., Tranøy, B. S., & Raknes, K. (2019). The Norwegian Petroleum Fund as Institutionalized Self-Restraint. In *Great Policy Successes* (pp. 244–263). Oxford University PressOxford. https://doi.org/10.1093/oso/9780198843719.003.0013

rationally. Gross Split contracts, which are often subject to policy adjustments, risk losing this function. Ideal legal reform is reform that strengthens the predictive function of the law without eliminating the state's ability to adapt to changes in global economic conditions. This can be achieved through clear transition mechanisms, consultation with stakeholders, and the regulation of policy changes that are not retroactive. The choice of policy reform and legal certainty in gross split contracts cannot be done partially. Reform must include strengthening the normative basis, integrating contract stabilisation mechanisms, institutional consistency, and protection of legitimate investor expectations. Only with such a comprehensive approach can the Gross Split scheme truly function as a policy instrument that provides legal certainty and encourages sustainable upstream oil and gas investment. This reform is not solely for the benefit of investors, but to ensure that natural resource management is carried out within a legal framework that is fair, stable, and accountable.

1. Statutory elevation of core fiscal terms

A central implication concerns the hierarchical status of rules governing gross split PSCs. As currently configured, several material provisions such as base production splits and the design of adjustment factors are contained primarily in ministerial regulations. From the standpoint of legal certainty, this arrangement introduces vulnerability because executive authorities retain the capacity to alter economic parameters through instruments that are easier to amend than primary legislation. Elevating essential provisions into parliamentary statutes would not eliminate policy flexibility. Still, it would raise the threshold for modification and ensure that any change is accompanied by deliberation, justification, and transitional protections.

Comparative experience indicates that statutory embedding signals long-term commitment without immobilizing government discretion. Brazil, for instance, demonstrates that when fiscal architecture is legislated even if subsequently refined through secondary regulationinvestors interpret such embedding as evidence that the state treats petroleum contracts as public–law commitments rather than as discretionary policy tools. Similarly, Norway’s reliance on comprehensive petroleum statutes has allowed reform while preserving continuity, precisely because reform must proceed through predictable institutional channels. For Indonesia, codifying the structural logic of gross split PSCs rather than every numerical parameter would align contractual stability with constitutional principles while still permitting administrative calibration

2. Structured stabilization and change-in-law mechanisms

A second reform option involves formalizing stabilization mechanisms that balance sovereign regulatory authority with legitimate investor expectations. Current gross-split contracts allocate substantial risk to contractors without providing commensurate protections against regulatory shifts. While states cannot and should not guarantee immutability, they can delineate how change will occur and how its burdens will be shared. Stabilization instruments may include change-in-law clauses that trigger renegotiation, compensation formulas, or phased implementation of new rules. Such mechanisms reduce uncertainty not by freezing policy, but by rendering its evolution foreseeable and subject to fair process.[41]

[41] Palazzo Almada, L. (2013). Oil & Gas Industry In Brazil: A Brief History And Legal Framework. *Panorama Of Brazilian Law*, *1*(1).

Evidence from petroleum jurisdictions shows that well-designed stabilization clauses can coexist with policy reform and fiscal consolidation. Where change processes are codified, disputes are more likely to be resolved through legal channels than political bargaining, and renegotiations occur within frameworks that preserve relational trust. Investors accordingly discount risk less aggressively and remain willing to commit capital to long-horizon projects, even in dynamic regulatory environments. For Indonesia, embedding structured stabilization in statute or standardized model contracts would complement the risk-shifting nature of gross split PSCs, converting exposure into manageable contractual risk rather than systemic regulatory uncertainty.

3. Institutional coordination and credible dispute resolution

Legal certainty depends not only on formal rules but also on the institutions that interpret and enforce them. Fragmentation of authority, inconsistent decision-making, and opaque approval processes can erode confidence even where legal texts appear clear. Strengthening interagency coordination, clarifying regulatory bodies' mandates, and standardizing approval timelines would reduce uncertainty associated with administrative discretion. Equally critical is the accessibility of neutral and efficient dispute-resolution mechanisms domestic or arbitral that encourage reliance on juridical processes rather than informal negotiation.[42]

Comparative jurisdictions illustrate that institutional credibility can function as a stabilizing asset independent of fiscal generosity. Malaysia and Norway, for instance, combine relatively disciplined administrative routines with transparent guidance documents that set expectations regarding interpretation of technical and budgetary rules. Investors value not only the outcomes of regulatory decisions but also the processes through which those decisions are reached. In Indonesia, publishing authoritative guidance on the application of adjustment factors, improving transparency in contract amendments, and ensuring timely adjudication of disputes would operationalize legal certainty at the level most visible to investors, namely, daily regulatory interaction.[43]

4. Phased and transparent policy transitions

Finally, reform should embrace the principle of predictable transition. The petroleum sector operates with long project lifecycles; sudden changes in taxation, local-content requirements, or environmental obligations can disrupt investment models and provoke conflict. Rather than episodic overhauls, countries that maintain stable investment climates typically employ phased reforms, pre-announced implementation schedules, and grandfathering provisions for existing contracts. These techniques protect legitimate expectations while allowing governments to pursue evolving fiscal, social, and climate objectives.[44]

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[42] Galvão, C., Costa, H. K. de M., Pereira, E. G., Santos, E. M. dos, & Ramos, D. S. (2024). Natural Gas Power Plants in the System Security. *Energy and Power Engineering*, *16*(04), 151–178. https://doi.org/10.4236/epe.2024.164008

[43] Maulana, R., & Jahja, J. (2018). *A Comparative Analysis of Production Sharing Contract and Gross Split (Case Study: Tango Work Area)*.

[44] Engen, O. A., Lindøe, P. H., & Sverre Braut, G. (2023). Coping with different system logics of standardization in regulatory regimes. Norwegian offshore experience. *Safety Science*, *161*. https://doi.org/10.1016/j.ssci.2023.106079

In practical terms, Indonesia could link future adjustments to gross split variables to objective triggers such as sustained price trends, technological developments, or reservoir performance metrics, thereby implementing them prospectively and communicating them in advance. Where retroactive application is unavoidable, compensatory mechanisms or renegotiation windows can mitigate the shock. Such an approach mirrors reform trajectories observed in Brazil and Thailand, where the credibility of change derives from the visibility of process rather than the rigidity of outcomes. Embedding transition management into the governance of gross split PSCs would foster a policy environment in which adaptation is expected, but arbitrariness is not.

Collectively, these reform pathways suggest that enhancing legal certainty in Indonesia's gross split regime does not require abandoning the model. Instead, the priority is to recalibrate its legal and institutional foundations so that fiscal clarity is matched by normative stability. Statutory elevation of core terms provides hierarchy; structured stabilization supplies predictability; institutional coordination ensures consistent implementation; and transparent transitions reconcile flexibility with trust. Implemented together, these measures would bring Indonesia closer to the best-practice pattern observed internationally: a system in which contractual efficiency is reinforced not undermined by the rule of law.

4. Conclusions

This study examined the gross-split production-sharing contract through the doctrinal lens of legal certainty, emphasizing that the value of any fiscal regime lies not only in its technical efficiency but also in its capacity to generate stable and enforceable expectations over time. The analysis demonstrates that Indonesia's gross split framework improves clarity in certain respects particularly by simplifying fiscal calculations and eliminating contentious cost-recovery processes yet remains constrained by structural vulnerabilities associated with normative hierarchies, risk allocation, and institutional practice. In other words, the regime produces a form of operational clarity without achieving complete juridical stability, a distinction that has important implications for long-term investment in the upstream oil and gas sector.

The study offers broader implications for scholarship and future research. Conceptually, it demonstrates that debates about petroleum fiscal regimes benefit from integrating legal theory with policy analysis, moving beyond cost–benefit comparisons toward questions of institutional credibility and normative stability. Empirically, further inquiry could employ mixed methods combining doctrinal analysis with interviews or data on investment behavior to test how investors operationally respond to perceived changes in legal certainty. As global energy systems transition and investment horizons become increasingly complex, states that succeed will be those capable of pairing adaptable policy with reliable legal commitments. The gross split PSC does not fail because of its fiscal design, nor does it automatically succeed through simplification alone. Its future depends on whether Indonesia can embed fiscal innovation within a stable and transparent legal order. If the recommended reforms are pursued coherently, the gross split regime could evolve from a pragmatic administrative reform into a durable contractual framework that supports sustainable upstream investment while remaining consistent with constitutional principles and the broader imperatives of accountable governance.

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