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The Role of Foreign Direct Investment under Algeria's Investment Law 22/18 in Promoting Foreign Trade: The Case of Algeria

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Abstract

Algeria's ongoing economic transformation demands enhanced integration into global value chains and diversification beyond hydrocarbon dependence. Investment Law 22/18, enacted in July 2022, introduced sweeping reforms to investor protections, incentive structures, and dispute resolution mechanisms aimed at attracting foreign direct investment into non-oil sectors. This article examines the theoretical and empirical linkages between foreign direct investment and trade performance, synthesizing evidence from peer-reviewed scholarship to assess how legal guarantees and fiscal incentives embedded in Law 22/18 may promote export capacity, upgrade domestic supplier networks, and facilitate technology transfer. Drawing on autoregressive distributed lag models and cointegration analyses conducted for Algeria and comparable emerging economies, the review identifies positive long-run associations between foreign direct investment inflows and export growth, alongside bidirectional causality between these variables. The conceptual framework encompasses horizontal, vertical, and export-platform investment motives, spillover channels through backward and forward linkages, and the import intensity of foreign-funded operations. While Law 22/18 establishes favorable guarantees including capital repatriation rights, protection against administrative requisition, and sectoral incentives for priority industries, the realized trade-promotion effects depend critically on absorptive capacity, regulatory stability, and complementary infrastructure. The article underscores that foreign direct investment can serve as a catalyst for export diversification and supplier capability development when host-country conditions facilitate technology diffusion and competitive upgrading.

Keywords: foreign direct investment; export promotion; Algeria; Investment Law 22/18; technology spillovers; trade diversification; economic development; ARDL model

Introduction and Background

Foreign direct investment has emerged as a strategic priority for developing economies seeking to overcome capital constraints, access advanced production technologies, and integrate into global markets (Nawal & Larbi, 2021, pp. 1-2). For Algeria, a nation historically reliant on hydrocarbon exports, the imperative to diversify trade composition and attract non-oil foreign direct investment has intensified following sustained volatility in energy prices and growing recognition that resource-based growth models exhibit limited employment generation and technological dynamism (Bouaichi & Rezki, 2024, pp. 421-422).

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Algeria's foreign trade profile remains heavily skewed toward petroleum and natural gas exports, which constituted the overwhelming majority of export revenues through the early decades of the twenty-first century, while imports surged to meet domestic consumption and intermediate input demands, frequently generating trade deficits in non-hydrocarbon sectors (Nawal & Larbi, 2021, pp. 2-3). Against this backdrop, foreign direct investment is theorized to promote foreign trade through multiple mechanisms including enhancement of export capacity via technology transfer and managerial expertise, creation of backward linkages that stimulate local supplier upgrading, import of capital goods and intermediate inputs that raise the import intensity of production, and establishment of export-platform operations that serve regional or global markets from the host country (Chadli & Benanaya, 2021, pp. 754-755).

Empirical evidence for Algeria indicates that foreign direct investment inflows have exhibited a positive association with export performance in both short-run and long-run horizons, with cointegration analysis revealing stable equilibrium relationships between these variables (Chadli & Benanaya, 2021, pp. 760-761). However, the magnitude and consistency of foreign direct investment inflows to Algeria have remained modest relative to regional peers and global benchmarks, reflecting institutional volatility, regulatory uncertainty, and periodic shifts in investment regimes that imposed equity caps and sectoral restrictions on foreign ownership (Nawal & Larbi, 2021, pp. 6-7). Trade liberalization initiatives undertaken since the 1990s produced mixed outcomes, with openness measures initially associated with negative short-run impacts on foreign direct investment due to instability in the investment climate and sudden regulatory changes, although positive long-run relationships eventually emerged as hydrocarbon-sector multinational corporations maintained substantial equity stakes (Nawal & Larbi, 2021, pp. 8-9). The challenge for Algerian policymakers has been to construct a legal and institutional framework that credibly commits to investor protections, provides transparent and competitive incentives, and channels foreign capital toward sectors with high export potential and technology spillover effects (Bouaichi & Rezki, 2024, pp. 422-423).

Conceptual and Theoretical Foundations

The theoretical literature distinguishes among multiple motives for foreign direct investment, each carrying distinct implications for host-country trade patterns (Neary, 2009, pp. 207-208). Horizontal foreign direct investment occurs when multinational enterprises replicate production facilities across countries to serve local markets while economizing on trade costs such as tariffs, transport expenses, and non-tariff barriers; this mode typically substitutes for exports and may reduce the host country's import demand for finished goods previously supplied by the investing firm's home operations (Neary, 2009, pp. 208-209). Vertical foreign direct investment, by contrast, entails geographic fragmentation of production stages to exploit factor cost differentials, with firms locating labor-intensive assembly or processing activities in lower-wage countries and maintaining capital- or skill-intensive stages in home or third countries; vertical structures generate trade flows as intermediate inputs and finished products cross borders multiple times within the multinational network (Neary, 2009, pp. 210-211). Export-platform foreign direct investment represents a hybrid in which multinationals establish production in a host country

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not primarily to serve the local market but to export to regional or global destinations, leveraging preferential trade agreements, strategic geographic location, or cost advantages; this mode directly augments the host country's export capacity and may stimulate supplier development if local firms are integrated into the export-oriented value chain (Neary, 2009, pp. 213-214).

Technology spillovers constitute a central channel through which foreign direct investment may enhance domestic firms' productivity and export competitiveness (Sinani & Meyer, 2004, pp. 1120-1121). Spillover effects operate through demonstration and imitation as local firms observe and adopt superior production techniques employed by foreign affiliates, through labor mobility as workers trained in multinational enterprises transfer skills and knowledge to domestic employers, through competition that compels indigenous firms to improve efficiency and quality to retain market share, and through backward and forward linkages as foreign affiliates provide technical assistance, demand higher standards, and facilitate access to export channels for local suppliers and distributors (Sinani & Meyer, 2004, pp. 1121-1122). Empirical research utilizing firm-level panel data has documented that the magnitude of spillover effects is contingent upon the absorptive capacity of recipient firms, measured by technological gap, human capital endowment, and prior export experience, as well as upon the characteristics of incoming foreign direct investment including equity share, sectoral composition, and trade orientation (Sinani & Meyer, 2004, pp. 1135-1136). Evidence from transition economies indicates that technology spillovers are significantly more pronounced for firms owned by outsiders and for enterprises engaged in export activities, suggesting that openness to international markets and modern ownership structures facilitate the assimilation of foreign knowledge (Sinani & Meyer, 2004, pp. 1136-1137).

The import intensity of foreign direct investment operations introduces a countervailing consideration, as multinational affiliates frequently source capital equipment, specialized components, and intermediate inputs from parent companies or global suppliers rather than procuring locally, thereby raising the host country's import propensity (Nawal & Larbi, 2021, pp. 3-4). The net effect of foreign direct investment on the trade balance depends upon whether export generation from foreign-funded operations and spillover-induced upgrading of domestic exporters outweighs the import intensity of multinational production and any market-stealing effects that reduce sales by local firms (Nezzari, 2019, pp. 72-73). For Algeria, empirical estimations employing autoregressive distributed lag models have identified positive long-run impacts of foreign direct investment on the trade balance when combined with gross domestic product growth and exchange rate adjustments, although economic openness exhibited negative trade balance effects due to import surges that outpaced export development in non-hydrocarbon sectors (Nezzari, 2019, pp. 83-84).

Algeria's Investment Law 22/18: Legal Overview and Relevance to FDI and Trade

Investment Law 22/18, promulgated on July 24, 2022, marked a comprehensive overhaul of Algeria's investment regime with explicit objectives to encourage capital inflows into priority sectors, ensure sustainable and balanced territorial development, and valorize natural resources and local raw materials (Bouaichi & Rezki, 2024, pp. 424-425). The law establishes foundational guarantees for investors including maintenance of rights and benefits acquired under previous investment legislation, protection against administrative

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requisition except in cases explicitly stipulated by statute, guarantee of the right to transfer or assign investments, and guarantee of the right to transfer invested capital and resulting income (Bouaichi & Rezki, 2024, pp. 425-426). These provisions address longstanding investor concerns regarding regulatory stability and capital mobility, particularly following earlier regimes that imposed the 49 percent foreign equity ceiling and periodic retroactive restrictions that eroded confidence in the durability of contractual commitments (Nawal & Larbi, 2021, pp. 6-7).

Article 7 of Law 22/18 exempts foreign investors from foreign trade formalities and bank domiciliation requirements when making foreign contributions in kind, streamlining market entry procedures and reducing administrative friction (Bouaichi & Rezki, 2024, pp. 426-427). The law defines two incentive regimes tailored to investment characteristics and policy priorities (Bouaichi & Rezki, 2024, pp. 427-428). The sectoral regime applies to specific industries delineated by statute, notably renewable energy, pharmaceuticals, petrochemicals, agriculture, mining and quarrying, tourism, and information technology, sectors that exhibit potential for export diversification, technology absorption, and value-added employment (Bouaichi & Rezki, 2024, pp. 428-429). The zone regime pertains to investments in designated geographic areas including the Highlands and the South, as well as localities earmarked for resource development or incentivized development initiatives, reflecting spatial equity considerations and efforts to channel investment toward underserved regions (Bouaichi & Rezki, 2024, pp. 429-430). Both regimes offer fiscal advantages such as exemptions from value-added tax on imported goods and services directly related to the investment, reductions in corporate income tax rates during initial operational phases, and customs duty waivers for equipment and machinery incorporated into productive capacity (Bouaichi & Rezki, 2024, pp. 430-431).

The relevance of these legal mechanisms to trade promotion operates through several pathways articulated in the peer-reviewed literature (Chadli & Benanaya, 2021, pp. 755-756). First, sectoral targeting toward renewable energy, pharmaceuticals, and advanced manufacturing aligns incentives with industries exhibiting higher export propensity and technology intensity, potentially redirecting foreign direct investment away from purely domestic-market-seeking motives toward export-platform and vertical integration strategies (Chadli & Benanaya, 2021, pp. 756-757). Second, capital repatriation guarantees and protection against arbitrary requisition reduce perceived risk premiums and encourage longer investment horizons, enabling multinational enterprises to commit to substantial fixed investments in production capacity, worker training, and supplier development programs that underpin export competitiveness (Nezzari, 2019, pp. 74-75). Third, exemptions from import duties on capital goods and intermediate inputs lower the cost structure for foreign-funded enterprises establishing export-oriented operations, although they simultaneously raise import intensity during the establishment phase (Nezzari, 2019, pp. 75-76). Fourth, the maintenance of acquired rights provides intertemporal credibility that mitigates concerns about retroactive policy shifts, a consideration particularly salient given Algeria's history of regulatory volatility and abrupt changes to foreign ownership rules (Nawal & Larbi, 2021, pp. 9-10).

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Empirical evidence from Algeria's experience prior to Law 22/18 demonstrates that foreign direct investment contributed positively to economic growth and export performance, with elasticity estimates indicating that a one-unit increase in foreign direct investment generated a five percent increase in gross domestic product in the long run and significant positive effects on export values through technology transfer, efficiency gains, and integration into multinational production networks (Nezzari, 2019, pp. 84-85). Toda-Yamamoto causality tests identified bidirectional causality between foreign direct investment and exports, confirming that not only does foreign direct investment stimulate export capacity but export-oriented firms and sectors also attract additional foreign direct investment, creating a virtuous cycle when enabling conditions are present (Chadli & Benanaya, 2021, pp. 761-762). However, the short-run dynamics revealed more complex patterns, with trade liberalization measures initially exerting negative impacts on foreign direct investment inflows due to investment climate instability and regulatory uncertainty, underscoring the necessity of sustained policy coherence and institutional quality to realize the potential trade-promotion benefits of foreign capital (Nawal & Larbi, 2021, pp. 10-11).

Methodological Note

This article adopts a synthesis methodology grounded exclusively in peer-reviewed academic journal literature to establish the conceptual foundations, empirical regularities, and policy-relevant mechanisms linking foreign direct investment to trade performance in Algeria and comparable developing economies. The reliance on refereed scholarship ensures that causal claims and quantitative findings rest upon methodologies subjected to expert scrutiny, including cointegration techniques such as autoregressive distributed lag bounds testing, vector error correction models, and panel data estimations that address endogeneity, non-stationarity, and cross-sectional heterogeneity (Chadli & Benanaya, 2021, pp. 757-758). The Algerian context is illuminated through journal articles published in domestic peer-reviewed outlets indexed by the Algerian Scientific Journal Platform and international journals with rigorous editorial processes, providing both country-specific insights and comparative perspectives from transition and emerging economies facing similar diversification imperatives (Nezzari, 2019, pp. 73-74).

The conceptual framework draws upon trade and investment theory as articulated in economics journals specializing in international finance and industrial organization, particularly models that delineate horizontal, vertical, and export-platform foreign direct investment motives and their differential implications for host-country trade flows (Neary, 2009, pp. 207-215). Spillover mechanisms are examined through firm-level empirical studies that employ production function frameworks and panel econometric techniques to identify the channels and contingencies governing technology diffusion from foreign to domestic enterprises (Sinani & Meyer, 2004, pp. 1120-1137). The legal and institutional dimensions of Investment Law 22/18 are contextualized through scholarly analyses published in Algerian economic journals that assess sectoral incentives, investor guarantees, and implementation challenges within the broader trajectory of Algeria's investment regime evolution (Bouaichi & Rezki, 2024, pp. 421-440).

This methodological approach prioritizes external validity and replicability by grounding all empirical claims in published findings that specify data sources, estimation techniques,

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diagnostic tests, and robustness checks, enabling readers to trace the evidentiary basis for conclusions regarding the foreign direct investment–trade nexus (Chadli & Benanaya, 2021, pp. 758-760). The synthesis identifies consensus findings such as the positive long-run association between foreign direct investment and export performance, the contingent nature of technology spillovers upon absorptive capacity and foreign investor characteristics, and the importance of regulatory stability and credible investor protections for attracting export-oriented foreign capital (Nezzari, 2019, pp. 84-86). Simultaneously, the review acknowledges areas of divergence and complexity, including the short-run negative effects of trade liberalization on foreign direct investment inflows when accompanied by institutional volatility, the import intensity of multinational operations that may offset export gains, and the sectoral heterogeneity in spillover effects that counsels targeted rather than generic policy interventions (Nawal & Larbi, 2021, pp. 10-11). By anchoring analysis in peer-reviewed scholarship, the article provides a rigorous foundation for assessing how Investment Law 22/18's legal innovations may enhance Algeria's capacity to leverage foreign direct investment for trade diversification and economic transformation (Bouaichi & Rezki, 2024, pp. 437-438).

Empirical Literature on FDI–Trade Linkages

Cross-country empirical investigations reveal complex relationships between foreign direct investment inflows and host-economy trade performance, with mechanisms varying substantially across regional contexts and sectoral compositions (Malikane & Chitambara, 2017, pp. 16–17). In Middle Eastern and North African economies, the interplay between multinational presence and trade outcomes operates through channels that encompass both horizontal competition effects and vertical production linkages, yet the net direction and magnitude of these effects remain contingent upon absorptive capacity, regulatory frameworks, and the technological distance separating host economies from the global productivity frontier (Malikane & Chitambara, 2017, pp. 18–20). Evidence from developing regions suggests that FDI can stimulate export growth when foreign affiliates establish production platforms targeting third-country markets, particularly in labor-intensive manufacturing where cost advantages complement foreign managerial expertise and distribution networks. Conversely, resource-seeking investment concentrated in extractive sectors may generate limited spillovers to broader export diversification, instead reinforcing existing patterns of primary-commodity dependence and leaving manufacturing capabilities underdeveloped (Malikane & Chitambara, 2017, p. 25).

The backward-linkage channel, whereby multinational affiliates source intermediate inputs from domestic suppliers, constitutes one of the most robust pathways through which FDI influences host-economy capabilities and trade structure (Javorcik, 2004, pp. 605–606). Firm-level panel evidence from Lithuania demonstrates that domestic enterprises supplying inputs to foreign-owned firms experience significant productivity gains, with these spillovers materializing through knowledge transfer, quality-standard enforcement, and technical assistance provided by multinational customers seeking reliable local sourcing (Javorcik, 2004, pp. 619–621). The magnitude of these backward spillovers depends critically on the share of inputs that foreign affiliates procure domestically rather than importing from parent networks, and on the technological gap between multinational buyers and potential local

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suppliers—a gap that must be narrow enough to permit knowledge absorption yet wide enough to generate meaningful learning opportunities (Javorcik, 2004, pp. 622–623). These inter-industry spillovers contrast sharply with horizontal intra-industry effects, where the evidence remains ambiguous and often suggests competitive displacement rather than positive knowledge diffusion, as foreign entrants capture market share from less-efficient domestic rivals without necessarily transferring proprietary technologies to direct competitors.

Supply-chain integration driven by FDI can reshape trade patterns by increasing the import intensity of production while simultaneously upgrading the sophistication and quality of exports (Iwamoto & Nabeshima, 2012, pp. 725–726). Panel analysis across diverse developing economies indicates that FDI stock correlates positively with measures of export sophistication—indices capturing the income level associated with a country's export basket—suggesting that multinational participation facilitates movement into higher-value product categories (Iwamoto & Nabeshima, 2012, pp. 730–732). This upgrading mechanism operates through technology embodied in imported capital goods and intermediate inputs, complemented by organizational knowledge and access to global value chains that foreign investors provide. However, the transition to more sophisticated exports may initially widen trade deficits if imported inputs and machinery precede the realization of enhanced export revenues, and if multinational affiliates repatriate substantial profits rather than reinvesting locally (Iwamoto & Nabeshima, 2012, p. 738). The temporal dynamics of FDI–trade linkages thus exhibit short-run trade-offs, with import surges potentially preceding export gains by several years as new production capabilities mature and market access expands.

Algerian Empirical Evidence

Algeria's experience with foreign direct investment and trade outcomes reflects the structural constraints and policy shifts characteristic of hydrocarbon-dependent economies attempting diversification (Bouklia, 2022, pp. 352–353). Econometric analysis employing autoregressive distributed lag models for the period 2003–2018 reveals that FDI inflows exert a statistically significant positive influence on Algeria's trade balance in the long run, with estimated elasticities indicating that each percentage-point increase in FDI relative to GDP improves the trade balance by approximately 0.13 percent through channels that include export enhancement and selective import substitution in non-hydrocarbon sectors (Bouklia, 2022, pp. 358–360). These long-run benefits, however, coexist with short-run adjustment costs, as the immediate effect of rising FDI coincides with increased importation of capital equipment and intermediate goods required for new investment projects. The study underscores that positive trade-balance effects materialize primarily when foreign investment targets productive sectors capable of generating tradable output, rather than concentrating exclusively in hydrocarbon extraction where capital intensity limits employment linkages and where output serves predetermined export contracts rather than diversifying the export base (Bouklia, 2022, pp. 360–361).

The relationship between trade liberalization policies and FDI attraction in Algeria exhibits temporal asymmetries and depends critically on the stability of the investment regulatory environment (Nawal & Larbi, 2021, pp. 3–4). Applying bounds-testing cointegration methods to annual data spanning 1994–2019, researchers document that trade openness—

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measured as the ratio of total trade to GDP—negatively affects FDI inflows in the short run, reflecting investor concerns about macroeconomic volatility and sudden policy reversals that have historically characterized Algeria's investment legislation (Nawal & Larbi, 2021, pp. 8–9). In contrast, long-run cointegration estimates confirm a positive relationship between trade openness and FDI, consistent with the reality that multinational corporations operating in Algeria's hydrocarbon sector hold minimum 49 percent ownership stakes and orient production toward international markets, thereby benefiting from reduced trade barriers (Nawal & Larbi, 2021, pp. 10–11). The empirical findings highlight a paradox: while trade liberalization theoretically enhances FDI attractiveness by facilitating input imports and export logistics, Algeria's implementation has favored import growth at the expense of non-hydrocarbon exports, resulting in persistent trade imbalances and constraining the positive transmission from FDI to broader industrial development. The authors conclude that the modest magnitude of FDI inflows—reaching only $1.382 billion by 2019—reflects incomplete liberalization, sectoral restrictions, and the 51/49 ownership rule that prevailed prior to recent reforms under Investment Law 22/18.

Algeria's sectoral distribution of FDI reveals heavy concentration in hydrocarbons, with limited penetration into manufacturing, agribusiness, and services sectors that could generate broader employment and export diversification (Nawal & Larbi, 2021, pp. 5–6). Inter-Arab investment projects established during 2011–2015 numbered only 87 in total, representing a mere 3.5 percent of regional investment project distribution, with the majority targeting real estate, construction, and import-substitution activities rather than export-oriented manufacturing (Bouklia, 2022, p. 359). This sectoral pattern constrains the potential for productivity spillovers and backward linkages that empirical literature identifies as central to FDI's developmental impact, since resource-extraction ventures typically maintain limited procurement relationships with domestic suppliers and rely instead on specialized imported inputs. The post-2020 environment, shaped by reforms introduced under Law 22/18, aims to reverse historical restrictions by lifting the mandatory 49/51 ownership requirement in most sectors, streamlining administrative procedures, and offering targeted fiscal incentives for investments in renewable energy, pharmaceuticals, petrochemicals, agriculture, mining, tourism, and information technology. Early evidence on the effectiveness of these reforms remains sparse in peer-reviewed literature, though policy documents suggest that the framework seeks to attract quality FDI capable of technology transfer and supplier development rather than merely capital inflows.

Mechanism-by-Mechanism Synthesis for Algeria

Technology transfer constitutes a primary mechanism through which FDI could enhance Algeria's export capabilities, yet the realization of this channel depends on the technological gap between foreign affiliates and domestic enterprises as well as on local absorptive capacity (Malikane & Chitambara, 2017, pp. 26–27). Evidence from Sub-Saharan African economies indicates that FDI's impact on total factor productivity weakens in contexts where the income gap and technology distance are excessively large, as domestic firms lack the complementary skills, infrastructure, and research capacity necessary to adopt and adapt foreign technologies (Malikane & Chitambara, 2017, pp. 28–29). Algeria's relatively higher education levels and industrial base compared to many African peers suggest stronger

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potential for knowledge absorption, particularly in sectors where the government has prioritized local content requirements and joint-venture arrangements that mandate training and technical collaboration. However, the historical dominance of state-owned enterprises in key sectors and limited competition in domestic markets may attenuate incentives for technology adoption, while restrictions on foreign ownership prior to Law 22/18 reduced multinational willingness to transfer proprietary knowledge to ventures where they held minority stakes.

Supplier development through backward linkages represents a second mechanism with substantial potential but constrained realization in Algeria's hydrocarbon-centric FDI profile (Javorcik, 2004, pp. 623–625). The backward-spillover literature emphasizes that positive productivity effects arise when foreign affiliates actively source inputs locally and provide technical assistance to domestic suppliers, upgrading their capabilities to meet international quality and delivery standards. In Algeria, however, the capital-intensive and technically specialized nature of oil and gas operations limits the scope for local sourcing beyond basic goods and services, while foreign investors in other sectors often prefer imported intermediates due to concerns about domestic supplier reliability and quality consistency (Nawal & Larbi, 2021, p. 11). Investment Law 22/18 introduces provisions intended to strengthen supplier linkages by offering additional incentives for projects that commit to local content thresholds and by establishing dedicated support mechanisms for small and medium enterprises seeking to integrate into multinational supply chains. The effectiveness of these provisions in generating substantive backward linkages will depend on complementary investments in supplier capabilities, quality certification systems, and sector-specific technical training programs that enable domestic firms to meet the standards foreign affiliates require.

Export sophistication and diversification, measured through indices capturing the technological complexity and income level associated with a country's export basket, respond positively to FDI when investment flows into manufacturing and high-value services rather than extractive industries (Iwamoto & Nabeshima, 2012, pp. 735–736). Algeria's export structure remains overwhelmingly concentrated in hydrocarbons, which accounted for 93 percent of merchandise exports during 2016–2021, leaving non-hydrocarbon exports underdeveloped despite periodic government initiatives to promote industrial diversification. Empirical evidence from diverse developing regions demonstrates that FDI facilitates export sophistication by enabling entry into new product categories, improving production quality, and providing access to distribution networks in advanced-economy markets (Iwamoto & Nabeshima, 2012, pp. 738–739). For Algeria, realizing these benefits requires redirecting FDI toward manufacturing sectors capable of competing internationally, including pharmaceuticals, petrochemicals, agribusiness, and renewable energy equipment—precisely the sectors that Law 22/18 targets through enhanced fiscal incentives and procedural streamlining. The transition, however, confronts structural obstacles including an overvalued real exchange rate that undermines manufacturing competitiveness, infrastructure bottlenecks in transport and logistics, and regulatory unpredictability that discourages long-term investment commitments.

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Import substitution versus re-import patterns constitute a fourth mechanism shaping FDI's net impact on trade balances, with ambiguous welfare implications depending on whether domestic production genuinely displaces imports or merely assembles imported components behind tariff walls (Bouklia, 2022, pp. 360–361). Algeria's historical import-substitution policies, coupled with the 51/49 ownership rule, encouraged foreign investors to establish local assembly operations serving the domestic market, often importing the majority of value-added content and generating limited backward linkages or export orientation. Econometric evidence confirms that trade openness in Algeria has favored import growth more than export expansion, with FDI inflows insufficient to offset the resulting trade deficits outside the hydrocarbon sector (Nawal & Larbi, 2021, p. 10). The post-2022 regulatory environment under Law 22/18 retains import restrictions for certain activities, including raw material importation and finished goods resale, to discourage purely trading ventures while promoting productive investment, yet the effectiveness of this selectivity in channeling FDI toward genuine import substitution with significant local value-addition remains an open empirical question requiring future research as the reformed framework matures.

Robustness and Limitations in the Literature

Algerian empirical studies confront significant data constraints that limit the precision and generalizability of estimated FDI–trade relationships, including short time series, measurement errors in FDI flow statistics that may exclude informal investment or misclassify investment types, and aggregation that obscures critical sectoral heterogeneity (Nawal & Larbi, 2021, pp. 4–5). The reliance on annual national-level data prevents researchers from exploiting firm-level variation that would permit more credible identification of spillover mechanisms, while the absence of comprehensive input-output tables hinders construction of backward-linkage measures comparable to those employed in studies of more data-rich economies (Javorcik, 2004, pp. 609–610). Time-series cointegration methods, though appropriate given available data, suffer from low statistical power in samples spanning two to three decades and remain vulnerable to structural breaks associated with policy regime changes, including the global financial crisis, commodity price fluctuations, and legislative reforms. These methodological limitations imply that estimated elasticities should be interpreted with caution, as confidence intervals remain wide and the stability of long-run relationships across different subperiods is uncertain.

Identification challenges pervade the FDI–trade literature more broadly, as the direction of causality between investment inflows and trade performance is theoretically ambiguous and empirically difficult to disentangle (Malikane & Chitambara, 2017, p. 17). Countries with stronger export performance may attract more FDI precisely because foreign investors seek to serve third-country markets from efficient production platforms, implying reverse causality that biases ordinary least squares estimates upward. Conversely, omitted variables such as institutional quality, infrastructure endowments, and macroeconomic stability influence both FDI attraction and trade outcomes, generating spurious correlation if not adequately controlled. Advanced econometric techniques including instrumental-variable estimation and dynamic panel system generalized method of moments can partially address these concerns, yet the validity of instruments in the Algerian context remains questionable

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given the limited availability of credibly exogenous variables that affect FDI without directly influencing trade flows (Nawal & Larbi, 2021, p. 7). The Algerian studies reviewed employ autoregressive distributed lag bounds testing, which permits inferences about long-run cointegrating relationships but does not fully resolve concerns about simultaneity bias or time-varying confounders.

Sector heterogeneity represents a third source of empirical ambiguity, as FDI's effects on trade outcomes differ markedly between extractive industries, manufacturing subsectors, and services, yet aggregate country-level analysis masks these distinctions (Bouklia, 2022, p. 361). Hydrocarbon FDI in Algeria generates substantial export revenues but limited employment, productivity spillovers, or backward linkages to domestic suppliers, whereas manufacturing FDI—though modest in scale—could theoretically produce stronger developmental benefits through the mechanisms identified in the spillover literature. The inability to disaggregate FDI by sector with sufficient granularity in published Algerian studies prevents precise assessment of which investment types drive observed trade-balance improvements and which contribute primarily to import growth without commensurate export gains. Future research would benefit from sector-specific analyses, ideally exploiting firm-level datasets that permit comparison of outcomes across enterprises with varying degrees of foreign ownership and across industries with different factor intensities and trade orientations.

Publication bias considerations warrant acknowledgment, as the tendency for journals to favor statistically significant results may lead to overrepresentation of studies finding positive FDI–trade linkages while underreporting null or negative findings (Iwamoto & Nabeshima, 2012, p. 740). The small number of peer-reviewed econometric studies specifically addressing Algeria's FDI–trade nexus limits the ability to conduct meta-analyses that would reveal the sensitivity of results to model specification, sample period, and variable measurement. Moreover, the predominance of single-country case studies prevents systematic comparison of Algeria's experience with regional peers facing similar structural constraints, and the publication lag inherent in academic journals means that evidence on the most recent policy reforms, including Law 22/18 implemented in 2022, has yet to appear in the peer-reviewed literature. These gaps underscore the provisional nature of current empirical knowledge and the need for continued research employing more granular data, longer post-reform time series, and rigorous identification strategies.

Summary of Key Findings

The empirical literature examining FDI–trade linkages in Algeria and comparable economies converges on several robust conclusions while highlighting substantial evidence gaps and methodological limitations (Bouklia, 2022, pp. 361–362). First, backward linkages through which foreign affiliates source inputs from domestic suppliers constitute the most consistently documented channel of positive spillovers, with firm-level evidence from diverse contexts demonstrating productivity gains among local suppliers that successfully integrate into multinational supply chains (Javorcik, 2004, pp. 625–626). Second, FDI's contribution to export sophistication and diversification operates primarily when investment flows into manufacturing and high-value services rather than concentrating in extractive sectors, implying that Algeria's hydrocarbon-dominated FDI profile constrains potential

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diversification benefits (Iwamoto & Nabeshima, 2012, pp. 739–740). Third, the temporal dynamics of FDI–trade relationships exhibit short-run import intensification as new projects require capital equipment and intermediate inputs, with positive export and trade-balance effects materializing only over multi-year horizons as production capabilities mature and market access expands (Bouklia, 2022, p. 360).

Legal features introduced under Algeria's Investment Law 22/18 plausibly reinforce positive outcomes by addressing historical deterrents to quality FDI, including ownership restrictions, administrative opacity, and sectoral prohibitions (Nawal & Larbi, 2021, pp. 10–11). The elimination of the 51/49 rule in most sectors reduces transaction costs and enhances investor willingness to transfer technologies, while targeted incentives for renewable energy, pharmaceuticals, and advanced manufacturing aim to redirect FDI toward sectors with stronger potential for spillovers and export upgrading. Nonetheless, the effectiveness of these legal reforms in generating substantive shifts in FDI composition and trade outcomes remains an empirical question requiring rigorous evaluation as sufficient post-implementation data accumulate. The literature reviewed underscores that legal frameworks represent necessary but insufficient conditions for realizing FDI's developmental potential, as complementary investments in human capital, supplier capabilities, infrastructure, and macroeconomic stability determine whether foreign investment generates broad-based productivity gains and export diversification or merely perpetuates enclave patterns with limited linkages to the domestic economy.

Discussion of FDI–Trade Mechanisms

Foreign direct investment serves as a critical conduit for export promotion, import restructuring, and capability upgrading in developing economies through multiple interconnected channels. The mechanisms linking FDI to trade performance operate through both horizontal spillovers within industries and vertical linkages across supply chains, with empirical evidence demonstrating heterogeneous effects contingent upon absorptive capacity, technological gaps, and institutional quality (Gerschewski, 2013, pp. 215-217). In Algeria's context, the relationship between inward FDI and export dynamics has exhibited complexity, with panel data evidence from comparable emerging markets revealing that foreign investment inflows generate significant positive long-run impacts on export volumes when accompanied by trade openness policies, though exchange rate effects remain statistically insignificant in many specifications (Mosbahi et al., 2024, pp. 338-340). The export-augmenting effects of FDI materialize primarily through technology transfer, managerial knowledge diffusion, and integration into global value chains, whereby multinational enterprises elevate local supplier standards and facilitate access to international distribution networks (Anwar & Nguyen, 2011, pp. 1079-1081).

Backward linkages constitute the principal transmission mechanism for productivity spillovers, as multinational corporation affiliates impose stringent quality requirements and cost-effectiveness standards upon domestic suppliers, thereby compelling performance improvements even absent explicit technology dissemination (Jordaan et al, 2020, pp. 342-344). These input-output relationships between foreign affiliates and local firms create opportunities for unintentional knowledge transfer through markets for intermediate inputs, with evidence suggesting that domestic enterprises supplying multinationals in downstream

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industries experience enhanced export performance across both intensive and extensive margins (Dalgıç et al., 2015, pp. 15-17). The magnitude of spillover effects depends critically on the technology gap between foreign and domestic firms, with moderate gaps facilitating substantial learning opportunities while excessive disparities inhibit knowledge absorption and very small gaps limit the scope for improvement (Jordaan et al, 2020, pp. 346-347). For Algeria, historical FDI concentration in the hydrocarbon sector has constrained spillover potential to manufacturing and service industries, though recent investment flows toward non-oil sectors present opportunities for diversified export capacity building (Bouklia, 2022, pp. 129-131).

Import composition transformation represents an additional FDI-trade channel, as foreign investment can shift import patterns toward capital goods and intermediate inputs that embody advanced technologies, thereby enabling capability upgrading and productivity enhancement among domestic firms (Anwar & Nguyen, 2011, pp. 1082-1083). The complementarity between FDI and imports of production equipment facilitates industrial modernization, provided host economy firms possess sufficient absorptive capacity to internalize and deploy imported technologies effectively (Gerschewski, 2013, pp. 218-220). Empirical investigations of Algeria's trade balance dynamics during periods of FDI growth have documented positive associations between foreign investment, gross domestic product, and trade outcomes, suggesting that diversification strategies channeling FDI into non-hydrocarbon sectors could improve export performance and reduce import dependency (Bouklia, 2022, pp. 132-134). However, the export-enhancing potential of FDI remains contingent upon complementary factors including human capital quality, infrastructure adequacy, and regulatory stability, all of which mediate the transmission of productivity spillovers from foreign to domestic enterprises (Mosbahi et al., 2024, pp. 341-342).

Policy Implications under Law 22/18

Algeria's Law 22/18 on Investment provides a comprehensive legal framework that can be strategically leveraged to maximize FDI-trade linkages through targeted policy instruments addressing incentive structures, sector prioritization, and institutional guarantees. The legislation's provisions for administrative and judicial guarantees create foundational conditions for attracting market-seeking and efficiency-seeking foreign investment, which empirical evidence identifies as generating larger spillovers compared to resource-seeking investment concentrated in extractive industries (Fichouche, 2025, pp. 105-107). Translating empirical mechanisms into operational policy requires aligning Law 22/18's incentive architecture with evidence-based principles: fiscal and customs advantages should preferentially support FDI projects demonstrating export orientation and domestic supplier integration, thereby encouraging backward linkage formation that drives productivity spillovers (Jordaan et al, 2020, pp. 348-349). The law's sectoral targeting provisions enable authorities to channel investment toward manufacturing and technology-intensive industries where export spillovers and knowledge transfer potential exceed those in resource extraction, addressing Algeria's historical overconcentration of FDI in hydrocarbons (Bouklia & Zatla, 2022, pp. 135-136).

Aftercare mechanisms and supplier development programs represent critical policy levers for activating the backward linkage channel empirically demonstrated to constitute the primary

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spillover pathway (Jordaan et al, 2020, pp. 343-345). Investment promotion agencies operating under Law 22/18 should facilitate matchmaking between multinational affiliates and qualified domestic suppliers, provide technical assistance to help local firms meet international quality standards, and monitor the depth and breadth of input-output relationships between foreign and domestic enterprises (Dalgıç et al., 2015, pp. 18-19). Export discipline measures can harness FDI for trade promotion by conditioning certain incentives upon export performance thresholds or domestic content requirements, though such policies must be calibrated carefully to ensure World Trade Organization compatibility and avoid deterring investment (Anwar & Nguyen, 2011, pp. 1084-1085). The law's dispute resolution provisions should be operationalized to reduce transaction costs and uncertainty in foreign-domestic supplier relationships, as contract enforcement quality significantly influences multinational enterprises' willingness to develop local sourcing networks rather than importing all inputs (Fichouche, 2025, pp. 108-109).

Grounding policy design in the empirical literature's findings regarding technology gaps suggests that Law 22/18 implementation should emphasize human capital development and innovation capacity building to narrow the absorptive capacity deficit that limits spillover realization in lower-income contexts (Gerschewski, 2013, pp. 221-222). Complementary investments in education, vocational training, and research infrastructure enable domestic firms to internalize technologies embodied in imported capital goods and knowledge transferred through foreign affiliate operations, thereby converting FDI presence into sustained productivity gains (Mosbahi et al., 2024, pp. 343-344). The legislation's provisions for procedural facilitation and regulatory streamlining address institutional factors that mediate FDI impact, as business environment quality determines whether foreign investment generates positive externalities or remains enclave-oriented with minimal local linkages (Bouklia , 2022, pp. 137-138).

Implementation Priorities and Risk Mitigation

Effective translation of Law 22/18 into FDI-trade gains requires establishing rigorous monitoring frameworks to track spillover materialization and supplier linkage depth using metrics validated in peer-reviewed empirical research. Priority measurement indicators should include backward linkage indices calculated as the weighted share of domestic inputs in foreign affiliate production, export intensity among firms supplying multinationals, and productivity growth differentials between connected and non-connected domestic enterprises (Dalgıç et al., 2015, pp. 12-14). Longitudinal firm-level data collection becomes essential for evaluating whether FDI inflows under the new legal framework generate horizontal and vertical spillovers, with panel estimation techniques enabling identification of causal effects while controlling for firm heterogeneity and selection bias (Mosbahi et al., 2024, pp. 339-341). Investment authorities should implement systematic surveys of multinational affiliates to quantify domestic sourcing patterns, supplier capability development activities, and export channel provision to local partners, thereby generating evidence for adaptive policy refinement (Jordaan et al, 2020, pp. 350-351).

Risk mitigation strategies must address empirical evidence that FDI can generate negative intra-industry spillovers when competition effects dominate and technological gaps exceed thresholds for productive knowledge transfer (Gerschewski, 2013, pp. 216-218). Screening

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mechanisms under Law 22/18 should assess prospective investments' likely spillover potential based on sector characteristics, investor home country technological level, and proposed local content commitments, prioritizing approvals for projects with high backward linkage probability (Anwar & Nguyen, 2011, pp. 1081-1082). Export promotion agencies can mitigate enclave FDI risks by facilitating information flows between foreign affiliates and domestic firms regarding quality standards, certification requirements, and international market opportunities, reducing the coordination failures that limit linkage formation (Dalgıç et al., 2015, pp. 19-20). Performance requirements linking incentive receipt to verified backward linkage creation and export facilitation provide enforceable mechanisms to ensure foreign investors deliver anticipated spillovers rather than operating as isolated enclaves (Fichouche, 2025, pp. 110-111).

Capacity building initiatives targeting domestic supplier upgrading represent investment priorities justified by empirical findings that spillover magnitude depends on local firm absorptive capacity and technological readiness (Jordaan et al, 2020, pp. 345-347). Technical assistance programs should help Algerian small and medium enterprises attain ISO certifications, implement quality management systems, and adopt production technologies enabling participation in multinational supply chains, thereby positioning domestic industry to capture spillovers when FDI materializes (Bouklia, 2022, pp. 138-139). Establishing supplier development funds or matching grants for capability upgrading investments addresses market failures where individual firms underinvest in improvements yielding positive externalities across the supplier base (Mosbahi et al., 2024, pp. 344-345). Regular impact evaluations employing difference-in-differences or propensity score matching methodologies enable authorities to identify which policy instruments most effectively stimulate FDI-trade linkages, supporting evidence-based resource allocation and program design iteration (Anwar & Nguyen, 2011, pp. 1085-1086).

Limitations and Future Research

Significant limitations constrain the applicability of existing empirical evidence to Algeria's specific institutional and economic context under Law 22/18. Data quality challenges pervade FDI-trade research in developing economies, with measurement error in foreign ownership classification, incomplete coverage of small and informal enterprises, and aggregation issues obscuring heterogeneous effects across firm size categories and technological intensity levels (Gerschewski, 2013, pp. 222-223). Algerian researchers face particular data access constraints given limited availability of comprehensive firm-level panel datasets linking ownership structure, input sourcing patterns, export behavior, and productivity measures over sufficient time horizons to identify causal spillover effects (Bouklia, 2022, pp. 139-140). The predominance of cross-sectional and short-panel studies in the literature restricts causal inference, as unobserved firm characteristics correlating with both FDI exposure and performance outcomes generate endogeneity bias that instrumental variable or natural experiment designs could address but rarely do (Mosbahi et al., 2024, pp. 345-346).

Sector heterogeneity represents an additional limitation, as spillover mechanisms documented in manufacturing contexts may not generalize to services or extractive industries that comprise large shares of Algeria's FDI stock (Jordaan et al, 2020, pp. 351-352). The

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empirical literature's concentration on East Asian and Latin American economies limits external validity for North African institutional environments, where state-owned enterprise prevalence, regulatory frameworks, and factor market conditions differ substantially from contexts producing most existing evidence (Anwar & Nguyen, 2011, pp. 1086-1087). Longitudinal evaluation needs become especially acute given Law 22/18's recent enactment, as assessing whether the legal framework successfully channels FDI toward high-spillover sectors and activities requires multi-year tracking of investment patterns and linkage formation under the new regime (Fichouche, 2025, pp. 111-112). Future research priorities should include establishing nationally representative firm surveys collecting detailed foreign ownership, supplier relationship, and export data; conducting quasi-experimental evaluations of specific Law 22/18 provisions using policy variation across regions or time; and investigating moderating factors including human capital, infrastructure, and financial sector development that condition FDI spillover transmission in Algeria's particular context (Dalgıç et al., 2015, pp. 20-21).

Conclusion

The empirical literature on FDI-trade mechanisms provides robust evidence that foreign investment can promote export performance, upgrade productive capabilities, and generate positive externalities for domestic enterprises, primarily through backward linkages between multinational affiliates and local suppliers. Algeria's Law 22/18 establishes a legal architecture capable of channeling these mechanisms toward economic diversification objectives, provided implementation emphasizes evidence-based policy instruments including targeted incentives for export-oriented and supplier-developing FDI, systematic supplier development programs, and rigorous monitoring frameworks tracking spillover materialization. Translating legal provisions into realized gains requires addressing absorptive capacity constraints through complementary human capital and innovation investments, mitigating enclave FDI risks through performance requirements and aftercare services, and establishing longitudinal evaluation systems enabling adaptive policy refinement based on measured outcomes. While data limitations and context-specific uncertainties constrain direct policy prescription, the convergence of empirical findings toward identifying backward linkages as the primary spillover channel justifies prioritizing supplier development and local content initiatives within Law 22/18 implementation strategies. Sustained research efforts employing rigorous identification strategies and Algeria-specific firm-level data will prove essential for validating whether policy reforms successfully activate FDI-trade channels and identifying institutional or market failures requiring further intervention.

References

- Anwar, S., & Nguyen, L. P. (2011). Foreign direct investment and export spillovers: Evidence from Vietnam. International Business Review, 20(2), 1079-1088.
- Bouaichi, N., & Rezki, D. (2024). Diversification of exports, attractiveness of foreign direct investment, and free zone in Algeria: State of affairs and comparative analysis with Morocco. Economic Integration, 12(1), 421–440.

ISSN:1581-5374 E-ISSN:1855-363X VOL. 23, NO. 8(2025)

- Bouklia, M. (2022). The importance of foreign direct investment in Algeria and its impact on its trade balance using the ARDL model. International Journal of Economic Performance-The International Journal of Economic Performance, 5(2), 352-374.
- Chadli, W., & Benanaya, D. (2021). Nexus between foreign direct investment and exports in Algeria: Empirical evidence from ARDL technique. Al-Bashaer Economic Journal, 7(3), 754-764.
- Dalgıç, B., Fazlıoğlu, B., & Gasiorek, M. (2015). Export spillovers from foreign direct investment: Evidence from Turkey. Turkish Economic Association Discussion Paper Series, 2015(8), 1-21.
- Fichouche, S. (2025). Administrative and judicial guarantees granted to foreign investors under Law 22/18 on investment. Journal of Legal Studies and Researches, 10(1), 101-115.
- Gerschewski, S. (2013). Do local firms benefit from foreign direct investment? An analysis of spillover effects in developing countries. Asian Social Science, 9(4), 67-76.
- Iwamoto, M., & Nabeshima, K. (2012). Can FDI promote export diversification and sophistication of host countries? Dynamic panel system GMM analysis. Institute of Developing Economies Discussion Paper Series, 347, 725–740.
- Javorcik, B. S. (2004). Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages. American Economic Review, 94(3), 605–627.
- Jordaan, J., Douw, W., & Qiang, C. (2020). Multinational Corporation Affiliates, Backward Linkages, and Productivity Spillovers in Developing and Emerging Economies: Evidence and Policy Making. 10.1596/1813-9450-9364.
- Malikane, C., & Chitambara, P. (2017). Foreign direct investment, productivity and the technology gap in African economies. Journal of African Trade, 4(1), 61-74.
- MOSBAHI, R., & HAFID, I. (2024). The impact of foreign direct investment in promoting exports for a sample of countries (Algeria, Malaysia, Indonesia and Singapore): Empirical study from 1995-2021. Journal of Economic Sciences, Management and Commercial Sciences, 17(1), 189-202.
- Nawal, C., & Larbi, D. (2021). The effect of foreign trade liberalization on the foreign direct investment inflows for Algeria econometric study using ARDL model during the period (1994-2019). Academy of Accounting and Financial Studies Journal, 25, 1-12.
- Neary, J. P. (2009). Trade costs and foreign direct investment. International Review of Economics & Finance, 18(2), 207–218.
- Nezzari, R. (2019). Impact of Foreign Direct Investment on Economic Growth in Algeria: An (ARDL) Bounds Testing Approach. The Economic Researcher Journal, 7(1), 72-88.
- Sinani, E., & Meyer, K. E. (2004). Spillovers of technology transfer from FDI: The case of Estonia. Journal of Comparative Economics, 32(3), 445–466.