

OBJECTIVE IMPUTATION IN CRIMES OF CORRUPTION OF OFFICIALS AND ITS IMPACT ON ECONOMIC INEQUALITY INDICATORS: A MULTIDIMENSIONAL ANALYSIS

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Summary

This article examines how **objective imputation**—as a criterion for the normative delimitation of criminal responsibility—operates in crimes of corruption of officials and what links corruption has with **indicators of economic inequality** in a multidimensional perspective. A recent doctrinal review (2021–2025) is combined with empirical evidence and evidence from international organizations (2020–2025). The findings suggest: (I) objective imputation offers useful tools to distinguish the creation of legally disapproved risks, the realization of the risk and the scope of protection of the norm in bribery, embezzlement and collusion schemes; (II) the literature and comparative indices show consistent associations between high levels of corruption and worse results in equality, access to justice, and the rule of law, elements that mediate income distribution; (III) a **multidimensional approach**—one that triangulates monetary inequality (Gini), justice, and the rule of law—improves causal understanding and policy orientation.

Keywords: objective imputation; public corruption; economic inequality; rule of law; multidimensional analysis.

Introduction

Corruption of public officials is a structural factor that distorts the allocation of resources, reduces the efficiency of spending, and erodes democratic legitimacy, with regressive effects on the distribution of income and opportunities. The most recent comparative evidence shows that corruption "fuels" inequalities and blocks critical policies, with more than two-thirds of countries below 50/100 in the **Corruption Perceptions Index 2024** (Transparency International, 2025).

This deterioration is part of a broader trend of weakening of the **rule of law**. The **Rule of Law Index 2024** reports the **seventh consecutive year of global decline**, with 57% of countries declining, which implies less institutional effectiveness in preventing, detecting, and punishing corrupt practices (World Justice Project, 2024). The contraction of checks on power, civil and criminal justice, and public integrity operates as a channel that aggravates inequality by biasing access to goods and services, dispute resolution, and the protection of rights.

Even in environments with sophisticated regulatory frameworks, an **implementation gap persists**. The **OECD (2024)** documents that, for example, member countries meet an

average of 76% of the formal criteria on conflicts of interest, but **only 40% in practice**, and **67%** compared to **33%** in risk management and auditing. This distance between "what is written" and "what is applied" increases exposure to corrupt risk and decreases the redistributive effectiveness of social spending (OECD, 2024).

From the point of view of criminal dogma, objective **imputation** offers a normative scaffolding for accurately attributing the results of official crimes. According to recent literature, its **triple filter** —(a) creation of a legally disapproved risk; (b) realization of the risk in the outcome; and (c) the fact that the result belongs to **the scope of protection** of the norm – makes it possible to distinguish relevant contributions from neutral conducts and to resolve problems of authorship and participation in complex bribery, embezzlement or collusion schemes (Greco, 2024; Puppe, 2021; Sánchez Gallego, 2022). In macro-cases of corruption, where there are organizational chains, information asymmetries, and outsourcing, these criteria contribute to **avoiding punitive over-extension** and, simultaneously, to **closing spaces of impunity** (Greco, 2024; Puppe, 2021).

The connection between corruption and **economic inequality** has recent empirical support. For Mexico (2010–2020), a study with strategies to tackle endogeneity (MC2ECE, GMM, sys-GMM) finds a **positive and robust association** between corruption and **Gini coefficient**, confirming the regressive nature of institutional capture (Flores Márquez, Neme Castillo, & Ríos Bolívar, 2023). This pattern is consistent with comparative intuition: corruption makes transactions more expensive, redirects budget items towards private incomes and deteriorates the provision of public goods, disproportionately affecting lower-income households.

Consequently, the analysis of distributional impacts should not be restricted to income. Inequality is **multidimensional** and requires the integration of monetary measures with institutional dimensions (access to justice, absence of corruption). The **World Bank's Poverty and Inequality Platform** updates Gini series and documents comparable methodologies for countries, which makes it possible to articulate them with governance indicators to evaluate anti-corruption policies with an equity approach (World Bank, 2025). This integrated approach – Gini + rule of law + integrity – enables more informative ex-ante and ex-post monitoring dashboards for criminal policy and governance.

In short, justifying criminal intervention in corruption through **objective imputation** and, at the same time, evaluating its distributive effects in a multidimensional key responds to a double challenge: **legal precision** and **socioeconomic effectiveness**. This article proposes a bridge between both levels: (i) a current reading of the objective imputation applied to crimes of corruption of officials; and (ii) a measurement framework that triangulates income inequality, the rule of law, and public integrity to inform decisions on prosecution, prevention, and reparation (Greco, 2024; Transparency International, 2025; World Justice Project, 2024; OECD, 2024; World Bank, 2025).

Theoretical framework

1) Objective imputation as a system: scope and limits in macro-corruption

In contemporary dogma, **objective imputation** operates as a system of filters that delimits the normative attribution of the result: (a) **creation of a legally disapproved risk**; (b) **realization of the risk** in the result; and (c) belonging to the **scope of protection** of the standard (Greco, 2024; Puppe, 2021). This framework is particularly useful in **complex corruption schemes** (bribery, embezzlement, collusion), where organisational chains,

outsourcing and "apparently neutral conduct" of third parties are intertwined. The key is to identify qualitative increases in risk and their functional connection with the typical outcome, avoiding both the over-criminalization of licit activities and areas of impunity (Sánchez Gallego, 2022; Greco, 2024).

Table 1. Components of objective imputation applied to public corruption
(operational definitions and evidence)

<i>Component</i>	<i>Operational definition (2021–2025)</i>	<i>Guiding Questions on Corruption</i>	<i>Typical evidence</i>	<i>References</i>
<i>Impermissible risk</i>	Conduct that qualitatively increases a prohibited danger to probity, competence or public property	Was there a directing of specifications? Undue payments/benefits? Interference in oversight?	Documentary trail in contracting; traceability of decisions; Financial Flows	Greco (2024); Doll (2021)
<i>Realizing the risk</i>	Specification of the danger in a typical result (cost overruns, diversion, restriction of competition)	Is the result (e.g., overpricing) an expression of the risk created by the conduct?	Price/time surveys; shopping series; temporal correlation	Greco (2024)
<i>Scope of protection</i>	Connection of the result with the protective purpose of the anti-corruption regulation	Does the result affect probity/competence/treasury, not an alien interest?	Matrix of normative protection; Teleological analysis	Greco (2024); Sánchez Gallego (2022)

2) Authorship, participation and "neutral conduct" in corruption networks

Macro-corruption is usually deployed through **networks** of officials, intermediaries and suppliers. Objective attribution helps to determine **when** the contribution of a third party ceases to be neutral and becomes a **relevant contribution** (qualitative increase in risk with **ex ante knowledge** of the plan). This approach balances **the freedom of enterprise** and the **protection of public goods**, by distinguishing generic services (neutrality) from actions as they **make** the corrupt plan viable (Puppe, 2021; Sánchez Gallego, 2022).

Table 2. Decision matrix: neutrality vs. relevant contribution

Criterion	Dogmatic threshold	Signs of neutrality (not imputable)	Signals of relevant contribution (chargeable)	Likely decision	References
Qualitative increase in risk	Non-trivial increase in prohibited risk	Standard service, without altering risks	"Tailor-made" adjustment of specifications; Competitive shielding	Relevant participation	Puppe (2021)
Ex-ante knowledge/risk acceptance	Awareness of the illicit purpose	Ignorance not guilty; Routine context	Emails, chronology, meetings, "red flags"	Intentional participation	Sánchez Gallego (2022)
Functional connection to the result	Normative link with typical damage	Distant/contingent contribution	Necessary intervention or direct facilitator	Imputation of the result	Greco (2024)

3) Corruption → inequality: mechanisms, mediators and recent evidence

Corruption acts as a **regressive tax**: it makes transactions more expensive, distorts allocations, and reduces the quality/coverage of public goods. Evidence from recent years reports a **positive association** between corruption and **income inequality** (Gini coefficient), robust to endogeneity control methods (Flores Márquez, Neme Castillo, & Ríos Bolívar, 2023). This link is **mediated** by the **rule of law** (limits on power, civil justice, absence of corruption) and by **implementation gaps** in public integrity (World Justice Project, 2024; OECD, 2024).

Table 3. Causal pathways: corruption → inequality and institutional mediators (multidimensional vision)

Mechanism	Description	Mediators	Recent Evidence	Expected effect
Fiscal-budgetary	Diversion/inefficiency of spending; Subsidy capture	Integrity in the expenditure cycle; External control	OECD (2024)	Gini; gaps in services
Allocation-productive	Collusion/monopoly in procurement; Barriers to entry	Effective competition; Open Contracting	OECD (2024)	Monopoly rent; ↓ Mobility

<i>Institutional-judicial</i>	Impunity; Low protection of rights	Civil/criminal justice; anticorruption	WJP (2024)	Bias against vulnerable households
<i>Political-regulatory</i>	Undue influence; Pro-elite bias	Limitstopower; transparency	IT (2024/2025)	Persistence of inequities
<i>Trust and social capital</i>	Erosion of legitimacy and compliance	Institutional trust	TI (2024/2025); WJP (2024)	↓ cooperation; ↑ Transaction Cost
<i>Micro Evidence</i>	Corruption–Gini association (country/sector)	Econometricdesign	Flores Márquez et al. (2023)	↑ Income Inequality

4) Multidimensional inequality and measurement integrated with governance

Inequality exceeds income. A multidimensional approach integrates **Gini** (monetary) with **institutional dimensions** (absence of corruption, civil justice) and new **flexible** metrics (e.g., nonlinear aggregations or spectral transforms) to capture **interactions** between dimensions (World Bank, 2025; Maestri, Oliveira, & Colosimo, 2024). This framework allows for the evaluation of **ex ante/ex post distributional impacts** of anti-corruption policies.

Table 4. Minimum multi-dimensional measurement board

<i>Dimension</i>	<i>Indicator</i>	<i>Fountain</i>	<i>Unit/Scale</i>	<i>Frequency</i>	<i>Analytical use</i>
<i>Monetary inequality</i>	Gini coefficient	World Bank PIP (2025)	0–100 (o 0–1)	Annual	Reduction target; comparability
<i>Governance (corruption)</i>	CPI	Transparency International (2024/2025)	0–100	Annual	Systemic risk; Pairs
<i>Rule of law</i>	"Absence of corruption", "Civil justice"	WorldJustice Project (2024)	0–1	Annual	Guardianship/deterrence capacity
<i>Applied integrity</i>	Compliance in practice (conflicts of interest; risk management)	OECD (2024)	% compliance	Biannual	Bridging the law-practice gap
<i>Sectoralresults</i>	Extra cost/time in purchases	Audits/IF youbuy	%/days	Quarterly-Yearly	Materialization of risk

5) From theory to practice: mapping criminal type → risk → result

Linking the **typical core** of the crime with the **impermissible risk** and outcome facilitates attribution and evidence decisions.

Methodology

1) Overall design

A **mixed** normative-empirical integration design is adopted with two complementary components:

- **Dogmatic-legal component:** focused systematic review (2021–2025) and **content analysis** of corruption decisions/files to **operationalize objective imputation** (creation of impermissible risk, realization of the risk, and scope of protection), developing a coding scheme and consistency metrics among evaluators (Greco, 2024; Sánchez Gallego, 2022; Puppe, 2021).
- **Empirical-comparative component:** construction of a **country-year panel** (suggested window 2015–2024) that combines **corruption/rule of law** (CPI and WJP sub-indices) with **income inequality** (Gini of the PIP) and **macro controls** (World Bank/WDI), plus **indicators of applied** integrity (OECD) to validate "law vs. practice" gaps (Transparency International, 2024/2025; World Justice Project, 2024; World Bank, 2025; OECD, 2024).

Rationale: Recent literature links corruption and inequality and employs strategies to address endogeneity (e.g., GMM/IV) (Flores Márquez, Neme Castillo, & Ríos Bolívar, 2023). The multidimensional approach integrates institutional and income metrics (World Bank, 2025; World Justice Project, 2024; OECD, 2024; Transparency International, 2024/2025).

2) Data sources, unit of analysis and sample

Unit of analysis: country-year.

Population: Countries with coverage in CPI, WJP, and PIP for ≥ 6 years within 2015–2024.

Sample: CPI–WJP–PIP intersection subset; WDI macro controls; OECD integrity indicators where they exist.

Table 1. Data architecture (comparative dashboard)

<i>Dimension</i>	<i>Indicator</i>	<i>Source (edition)</i>	<i>Interv al</i>	<i>Expe cted coverag e</i>	<i>Main Use</i>
<i>Monetary inequality</i>	Gini coefficient	World Bank, PIP (2025)	2015–2024	120–150 countries	Dependent variable (DV1)
<i>Governance/corruption</i>	CPI (0–100)	Transparency International (2024/2025)	2015–2024	180 countries	Key Predictors (IV)

	)				
<i>Rule of law</i>	Subscripts "Absence of corruption" and "Civil justice" (0–1)	WorldJustice Project (2024)	2015–2024	120–140 countries	Mediators/controls
<i>Applied integrity</i>	Compliance in practice (conflicts of interest; risk management)	OECD (2024)	Recent cross-section	38+ countries	External validity/robustness
<i>Macro controls</i>	GDP pc (PPP), government spending, unemployment, openness	World Bank, WDI (2025)	2015–2024	Global	Controls

(Citas: Transparency International, 2024/2025; World Justice Project, 2024; OECD, 2024; World Bank, 2025).

3) Operationalization of variables and construction of indices

- **DV1 (monetary inequality):** Gini (0–100) of the PIP, adjusted for equivalence when available (World Bank, 2025).
- **DV2 (multidimensional inequality index):** combination of Gini + (1–WJP_ ausencia corruption) + (1–WJP_ justicia civil) with **data-driven weights** (PCA) and, in sensitivity, flexible aggregation inspired by recent proposals for multidimensional inequality (Maestri, Oliveira, & Colosimo, 2024).
- **IV (corruption):** CPI (higher score = lower corruption) (Transparency International, 2024/2025) and, in robustness, **corruption WJP_ ausencia** (World Justice Project, 2024).
- **Institutional mediators:** civil WJP_ justicia and limits to power (World Justice Project, 2024).
- **Macro controls:** GDP pc (PPP), public spending/GDP, unemployment, trade openness (World Bank, 2025).
- **Dogmatic construct (objective imputation):** scale of 0–3 per case (0 = unverified; 3 = fully verified) for the three filters: **risk not allowed, risk realization, scope of protection; Cohen's kappa** and **ICC** for inter-rater consistency (Greco, 2024; Puppe, 2021; Sánchez Gallego, 2022).

Table 2. Operationalization sheet (summary codebook)

<i>Variable</i>	<i>Guy</i>	<i>Definition/Transformation</i>	<i>Fountain</i>	<i>Role</i>
<i>Gini</i>	Continued (0–100)	Last available annual data (linearization if years are missing)	World Bank, PIP (2025)	DV1
<i>Multidimensional index</i>	Continued (z-score)	PCA on [Gini, 1–WJP_AC, 1–WJP_JC]	World Bank (2025); WJP (2024)	DV2
<i>CPI</i>	Continued (0–100)	Re-scaling if required	Transparency International (2024/2025)	IV
<i>WJP_ausencia of Corruption (AC)</i>	Continue (0–1)	Direct use	WorldJustice Project (2024)	IV/mediator
<i>WJP_justicia civil (JC)</i>	Continue (0–1)	Direct use	WorldJustice Project (2024)	Mediator
<i>GDP pc (PPP)</i>	Log	Log Transformation	World Bank, WDI (2025)	Control
<i>Public expenditure/GDP</i>	%	Direct use	World Bank, WDI (2025)	Control

4) Identification strategy and econometric specifications

The effect of corruption on inequality is estimated by controlling for unobserved heterogeneity and common shocks:

1. **Baseline:** MCO with **fixed effects** country and year:

$$\text{Gini}_{it} = \beta_1 \text{Corrupción}_{it} + \gamma X_{it} + \mu_i + \tau_t + \varepsilon_{it}$$

2. **Dynamic panel:** Arellano–Bond/Blundell–Bond (**sys-GMM**) to treat endogeneity (internal instruments due to lags) (Flores Márquez et al., 2023).
3. **Institutional mediation (SEM/paths):** Corruption → (WJP_AC, WJP_JC) → Inequality (World Justice Project, 2024).
4. **Composite measurement:** PCA and sensitivity with nonlinear aggregations (Maestri et al., 2024).

Table 3. Key Specifications and Assumptions

Model	Objective	Critical assumptions	Testing/Diagnostics	References
FE (country, year)	Controlling for invariant heterogeneity	Conditionalexogeneity	Cocollinearitytests; waste; ERF	TI (2024/2025); WJP (2024)
Sys-GMM	Endogeneity and dynamics	Validity of internal instruments	Hansen/Sargan; EL(1)/AR(2); Instrumentcollapse	Flores Márquez et al. (2023)
SEM (mediation)	Quantifying indirect pathways	Invariance measurement	of CFI/TLI/RMSEA; Indirect bootstrap	WJP (2024)
PCA (index)	Reduce dimensionality	Component linearity	Variance explained; Loads; stability	Maestri et al. (2024)

5) Dogmatic component: case sampling and validation

- **Theoretical sampling** of decisions/files (2019–2025) involving bribery, embezzlement, collusion, and influence peddling.
- **Coding protocol:** two independent evaluators apply objective imputation rubric (0–3 per filter).
- **Reliability:** kappa/ICC ≥ 0.70 as the threshold of acceptability; discrepancies resolved by blind consensus.
- **Construct validity:** triangulation with proven facts, expert reports and financial traceability (Greco, 2024; Sánchez Gallego, 2022; Puppe, 2021).

Table 4. Objective Imputation Rubric (Coding Scheme)

Filter	Observable criteria	0	1	2	3	Typical Evidence
Impermissible risk	Qualitative increase in risk	No	Weak clues	Solid evidence	Clearly tested	Tailor-made specifications, payments
Realizing the risk	Specification in typical result	No	Partial	High	Full	Cost overrun, diversion
Scope protection of	Nexus with the end of the standard	No	Partial	High	Full	Probity/Treasury/Competence

(Citations: Greco, 2024; Sánchez Gallego, 2022; Puppe, 2021).

6) Treatment of biases, missing values and robustness

- **Missing values:** linear interpolation of **short gaps** in Gini; controlled exclusion if ≥ 2 consecutive years are missing; sensitivity with **multiple imputation method** (alternative scenario) (World Bank, 2025).
- **Measurement biases:** alternative use of corruption streams (CPI vs. WJP_AC) and z-score normalization (Transparency International, 2024/2025; World Justice Project, 2024).
- **Endogeneity:** (i) sys-GMM; (ii) **placebos** (e.g., future corruption $t+1t\{+\}1t+1$ on ttt inequality); (iii) lags as predictors in extended controls (Flores Márquez et al., 2023).
- **Heterogeneity:** estimates by subgroups (income, region, political regime).
- **Multidimensional index sensitivity:** compare PCA vs. nonlinear weighted aggregation (Maestri et al., 2024).

Table 5. Robustness and validity plan

<i>Risk</i>	<i>Action</i>	<i>Success Criteria</i>	<i>Guide Source</i>
<i>Measuring Corruption</i>	Alternar CPI/WJP_AC	Consistent sign/magnitude signals	TI (2024/2025); WJP (2024)
<i>Endogeneity</i>	Sys-GMM	Hansen $p>0.10$; AR(2) ns	Flores Márquez et al. (2023)
<i>Index Construction</i>	PCA vs. non-linear	Correlation ≥ 0.8 ; Ranking stability	Maestri et al. (2024)
<i>Lack of data</i>	Multiple Imputation	$<10\%$ changes in key coefficients	World Bank (2025)

7) Reporting strategy and reproducibility

- **Pre-analysis protocol:** recording of hypotheses and specifications before estimating (open repository).
- **Tables of results:** main estimates (EF, sys-GMM), SEM mediation and analysis by subgroups.
- **Supplementary material:** (I) complete codebook; (II) reproducible syntax; (III) correlation matrices; (IV) diagnostic tests.

8) Ethical and Limitation Considerations

- **Ethics and data:** aggregated public sources only; anonymization in the case component.
- **Limitations:** Gini comparability across surveys; potential perception bias in CPI; uneven coverage of WJP/OECD (Transparency International, 2024/2025; World Bank, 2025; World Justice Project, 2024; OECD, 2024).

Results

1) Descriptive evidence: perceived corruption and inequity (comparative sample in LAC)

Table 1 summarizes recent scores from **the Corruption Perceptions Index (CPI 2024)** and the **Gini index (2022–2023, PIP-World Bank)** for four Latin American countries. In this limited sample, levels of perceived corruption differ substantially (e.g., Chile 63 vs. Mexico 26 in CPI 2024), while inequality as measured by Gini remains high and heterogeneous (Colombia 54.8 vs. Peru 40.3). The CPI data comes from **Transparency International (TI)** and Gini data from the **World Bank's Poverty and Inequality Platform (PIP)/FRED**.

Table 1. Perceived corruption (CPI 2024) and inequity (Gini 2022–2023)
(CPI: 0=high corruption, 100=low corruption; Gini: 0=equality, 100=maximum inequality)

Country	CPI 2024	Gini 2022	Source note Gini
Chile	63	43.0	FRED/World Bank (últ. act. 2024-04-02)
Colombia	39	54.8 (2022); 53.9 (2023)	FRED/World Bank (últ. act. 2025-06-05)
Mexico	26	43.5	FRED/World Bank (Mexico table)
Peru	31	40.3 (2022); 40.7 (2023)	FRED/World Bank (últ. act. 2025-06-05)

Finding 1. In the global IT aggregate, **more than two-thirds of countries** score below 50/100 in the CPI 2024, and the global average remains stagnant at **43**; this confirms that public corruption remains high on a global scale (Transparency International, 2025).

Finding 2. In this reduced subsample (N=4), the **bivariate correlation** between CPI (higher = lower corruption) and Gini 2022 is practically zero ($r \approx 0.03$), which **does not allow causal inferences**; it reinforces the need for models with more countries and controls (see the econometric strategy described in the methodology). *(Own calculation with the values in Table 1; sources: TI 2024/25 and PIP-BM).*

Note: the **perceptive** nature of the CPI and the differences in reference years of the Gini advise caution in specific comparisons (Transparency International, 2025; World Bank/PIP, 2025).

2) Rule of Law, Corruption, and Civil Justice: Evidence from the WJP (2024)

To approximate institutional **functioning** beyond perception, the **World Justice Project (WJP) 2024** factor rankings **are examined**: *Absence of Corruption* and *Civil Justice* (1=best position). Mexico and Peru are among the worst global performers in both factors, while Chile is in the top third; Colombia is in intermediate positions.

Table 2. WJP 2024 — Global Factor Position (1=Best, 142=Worst)

Country	Absence of Corruption	Civil Justice
Chile	29/142	47/142
Colombia	100/142	99/142
Mexico	135/142	131/142
Peru	118/142	120/142

Finding 3. Countries with **worse absence of corruption and weaker civil justice** (e.g., Mexico, Peru) tend to exhibit **persistent inequalities** (Gini > 40), consistent with the literature linking **institutional capture** and **distributional failures** (World Justice Project, 2024).

3) Qualitative results of normative context and integrity

Finding 4. "Implementation gap" in public integrity (OECD 2024). The OECD documents that, although formal anti-corruption frameworks have improved, a **gap between standards and practice** persists (e.g., 76% of criteria met in conflict of interest regulation vs. 40% in practice), which **leaves it exposed** to risks of corruption in public procurement and regulation – with expected impacts on inequality through **rents and price premiums** (OECD, 2024).

Finding 5. Recent global trend. The 2024 edition of the WJP confirms **persistent setbacks in the rule of law** (57% of countries), with slight one-off progress in anti-corruption; several LAC countries declined in the last year, reinforcing the adverse environment for the **effective enforcement** of criminal corruption law (World Justice Project, 2024).

Finding 6. CPI 2024 and climate inequality. TI underscores that **corruption compromises climate action** by diverting funds and aggravating allocation biases, with regressive distributional effects – an additional channel through which public corruption can **deepen inequalities** (Transparency International, 2025).

4) Simple association tests (small sample)

Table 3. CPI–Gini bivariate association (N=4 LAC countries)

<i>Dependent variable</i>	<i>Explanatory variable</i>	<i>r of Pearson</i>	<i>Observation</i>
<i>Gini (2022)</i>	CPI 2024 (↑ = less corruption)	0.03	No clear linear relationship in small N; sensitive to sample composition. (Own calculation with Table 1)
<i>Gini (2022)</i>	(100–CPI) (↑ = more corruption)	–0.03	Opposite sign but equally close to 0.

Reading. This **exploratory test** does not identify a linear relationship in the subsample; when expanding coverage and controlling for *GDP per capita*, *productive structure*, *transfers*, and *shocks*, the literature usually finds that **improvements in integrity** are associated with **lower inequality** via income reduction and biases in the provision of public goods. Here, institutional **outcomes** (Table 2) support this indirect link: **weak civil justice + high corruption ↔ worse social outcomes** (WJP, 2024; OECD, 2024).

5) Implications for the "objective imputation" in corruption of officials

1. **Institutional environment matters:** where the *absence of corruption* and *civil justice* are low (WJP), the **objective typicity** of corrupt conduct tends to **translate into broader social damages** (inefficiencies and regressivity), reinforcing the **legal-criminal relevance of the risk created** (WJP, 2024; TI, 2025).
2. **Integrity policies as ex ante criminal prevention:** closing the implementation gap (OECD) can **reduce the materialization of typical damages** (overpricing, capture), thus reducing **events of criminal relevance** and their impact on inequality.

Conclusions

1. **Objective imputation is an ideal framework for macro-corruption.** Its triad—creation of impermissible risk, realization of risk, and scope of protection—makes it possible to accurately distinguish relevant contributions from neutral behaviors, ordering authorship/participation decisions and avoiding both over-criminalization and impunity gaps (Greco, 2024; Puppe, 2021; Sánchez Gallego, 2022).
2. **Corruption is associated with worse distributional outcomes.** Recent evidence, including studies with endogeneity controls, supports that higher levels of corruption are related to greater income inequality; this link is strengthened when the rule of law is weak and civil justice operates with limitations (Flores Márquez, Neme Castillo, & Ríos Bolívar, 2023; World Justice Project, 2024; Transparency International, 2025).
3. **A multidimensional approach improves diagnosis.** Combining monetary inequality (Gini) with institutional dimensions—absence of corruption and civil justice—offers a more explanatory and useful framework for the design of policies that seek distributional impacts, as opposed to exclusively monetary metrics (World Bank, 2025; World Justice Project, 2024; Maestri, Oliveira, & Colosimo, 2024).
4. **The "law vs. practice" gap is the Achilles' heel.** Even with robust regulatory frameworks, implementation failures persist in public integrity (e.g., conflict of interest management, open procurement, and risk control), which reopen channels of capture and regressive rents; closing this gap is a condition for criminal prosecution to have sustainable effects on inequality (OECD, 2024).
5. **Penal-public policy implication: complementarity, not substitution.** Dogmatic precision (objective imputation) strengthens ex post sanctioning certainty, while integrity and transparency systems reduce the creation of **ex ante** risks; both dimensions are complementary to mitigate the transmission of corruption→inequality (Greco, 2024; OECD, 2024; World Justice Project, 2024).
6. **Criminal policy priorities.** Explicitly incorporate objective imputation filters in prosecution guidelines (e.g., matrices for "neutral conduct" vs. "relevant contribution"), standardize evidentiary criteria on the realization of the risk (cost overrun expertise, traceability of decisions) and reinforce the protection of legal-institutional assets (probity, competence, treasury) (Greco, 2024; Puppe, 2021).
7. **Integrity and governance priorities.** Strengthening civil justice, open public procurement, and limits on power—with independent monitoring—reduces the materialization of typical damages and, therefore, the incidence of cases with criminal relevance and their regressive impact (World Justice Project, 2024; OECD, 2024).
8. **Tracking with integrated dashboards.** A dashboard with an annual Gini series (PIP), CPI (TI) and WJP sub-indices is recommended, in addition to integrity implementation indicators (audits, conflicts of interest, risk management), for ex-ante/ex-post evaluation and accountability (World Bank, 2025; Transparency International, 2025; World Justice Project, 2024).
9. **Limitations of the study.** (I) The CPI is perceptive and must be triangular with institutional metrics and case evidence; (II) the comparability of the Gini between sources/surveys may vary; (III) the corruption-inequality relationship is potentially

bidirectional; therefore, descriptive results require confirmation with dynamic models and valid instruments (Transparency International, 2025; World Bank, 2025; Flores Márquez et al., 2023).

10. **Research agenda.** To delve into (i) quasi-experimental analyses with data on public procurement and justice (event studies on integrity reforms); (ii) integration of texts of judgments/files to measure the effective application of the objective imputation filters; (iii) flexible multidimensional inequality metrics (e.g., data-driven aggregations) and their sensitivity by sector (Maestri et al., 2024; World Bank, 2025).

General conclusion. The consolidation of objective **imputation** as an operational standard in corruption crimes and the **institutionalization** of robust integrity and civil justice systems form a double lever to reduce the economic and distributive damage of corruption. Measuring in a **multidimensional way**—combining income and institutions—and closing the gap between the **norm** and its **application** are the decisive steps in turning criminal prosecution into tangible improvements in equity (Greco, 2024; OECD, 2024; World Justice Project, 2024; Transparency International, 2025; World Bank, 2025).

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