

NPUL — National Product Uncertainty Loss

Making Economic Risks Visible — A Governance Tool for Europe's Resilienc

❖ Why NPUL Exists

In Europe, measurement is not a technical detail, it is the foundation of fiscal sovereignty and institutional trust. GDP is the backbone of Europe's fiscal governance, competitiveness and Single Market credibility. Yet even small measurement uncertainties embedded in national accounts can result in:

- overstated economic resilience
- silent erosion of real GDP
- unreliable productivity metrics
- weakened fiscal intelligence
- AI systems trained on unverified economic baselines

➤ *When measurements are not calibrated, institutional trust becomes a statistical assumption.*

Economic governance depends on a fragile chain:

Measurement → Data → Statistics → Decisions → Public trust

If the first link fails, every link fails.

❖ NPUL Economic Formula — Making Invisible Risks Measurable

$$\text{NPUL} = \text{GDP} \times \epsilon_m \times \alpha$$

- ϵ_m Measurement Uncertainty Coefficient
- α Economic Sensitivity Factor


➤ *GDP loss becomes measurable and governable.*

➤ *Every +1% increase in measurement uncertainty → +1% hidden GDP loss*

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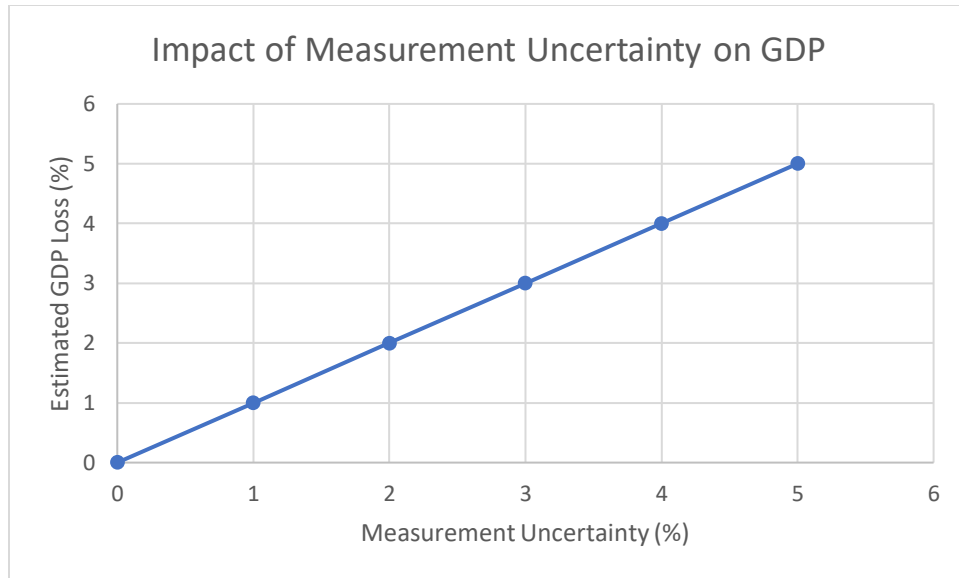


Figure 1. How measurement uncertainty translates proportionally into GDP resilience loss (author's elaboration based on NPUL model).

❖ Strategic Value for the European Union

- ✓ Strengthens fiscal credibility & resilience
- ✓ Supports trustworthy **AI-driven** policy decisions
- ✓ Enhances Single Market competitiveness
- ✓ Protects public trust in official statistics
- ✓ Direct relevance for **EU accession negotiations** (especially Chapter 18 & 20)

❖ Pilot Opportunity — Western Balkans (starting with Albania)

A high-value **testbed** for Europe:


- ✓ High exposure to fragmented data ecosystems
- ✓ Demonstrates EU impact rapidly
- ✓ Establishes EU leadership in calibrated governance
- ✓ Bridges measurement science + fiscal policy

Europe cannot afford to govern in the dark. Resilience begins where uncertainty is measurable.

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