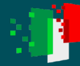

Finanziato nell'ambito del Piano Nazionale di Ripresa e Resilienza PNRR. Missione 4, Componente 2, Investimento 1.3 Creazione di "Partenariati estesi alle università, ai centri di ricerca, alle aziende per il finanziamento di progetti di ricerca di base"

GRINS
FOUNDATION

GRINS – Growing Resilient, INclusive and Sustainable

"9. Economic and financial sustainability of systems and territories"

Codice Identificativo: **PE00000018**

Finanziato nell'ambito del Piano Nazionale di Ripresa e Resilienza PNRR Missione 4 – Componente 2

SPOKE 4

D4.4.2 – Policy briefs on debt sustainability and financial stability also under compound risk

March 2025

Understanding Italian Regional Fiscal Multipliers

Policy Insights for Enhancing Fiscal Policy Effectiveness

Giuseppe Cavaliere, Luca Fanelli and Marco Mazzali

Department of Economics

University of Bologna

Executive Summary

Fiscal policy is a key stabilization mechanism during economic crises, and fiscal multipliers serve as a crucial measure of its effectiveness. In the post-pandemic landscape, there is a renewed focus on how government spending can accelerate recovery and ensure durable economic sustainability. The study "Local Fiscal Multipliers in a Data-Scarce Environment: The Effectiveness of Government Spending Across Italian Regions" by Cavaliere, Fanelli, and Mazzali (2025) confirms that government spending has a positive impact on output in Italy. However, the persistence of fiscal spending shocks is not sufficiently strong to foster debt-output stabilization in the medium/long term, and the estimated effects are extremely uncertain. Significant variations emerge across regions and expenditure types. To increase effectiveness, the study suggests that fiscal policies should be tailored to local conditions and paired with structural reforms. Moreover, public investment is preferable for long-term economic growth, given its higher and more persistent returns compared to consumption-based spending.

Context

The role of fiscal policy as an economic stabilization tool has come under increasing scrutiny following major economic crises, particularly when central banks face constraints such as the zero lower bound. In these situations, governments often turn to fiscal measures to stimulate growth and mitigate downturns. However, the effectiveness of such interventions can vary significantly, highlighting the critical need to accurately estimate fiscal multipliers. Measurement errors can mislead policymakers and misdirect public funds toward ineffective or counterproductive policies (Blanchard and Leigh, 2013).

While fiscal expansion was employed during the COVID-19 pandemic, a novel austerity scenario is now emerging. This shift in fiscal policy underscores the importance of understanding how different fiscal measures impact regional economies. In Italy, this challenge is compounded by pre-existing regional disparities, with the crisis exacerbating the North-South divide. Consequently, many policy interventions aim to both revive aggregate demand and address structural imbalances. Understanding the regional impact of public spending is crucial for achieving these goals. Quantifying fiscal multipliers at the sub-national level has become increasingly important for shaping effective and equitable policy in Italy (Lucidi, 2022; Deleidi et al., 2021).

Quantification of regional fiscal multipliers

We estimate fiscal multipliers at the Italian regional (NUTS-2) and macro-area (NUTS-1) levels using annual data from 1995 to 2021. To this end, we develop a novel econometric methodology that models local fiscal reaction functions describing government spending behavior. Our identification strategy relies on an external instrument approach with non-fiscal proxies to isolate government spending multipliers (Caldara and Kamps, 2017). For this purpose, and to deal with the issue of data scarcity, we craft a factor-based instrument valid across all regions. Moreover, the methodology avoids imposing any homoscedasticity hypothesis associated with panel-data approaches, fully exploiting cross-regional heterogeneity in estimation.

We evaluate how shocks to government consumption and investment affect output, employing bootstrap techniques to derive confidence intervals and quantify the uncertainty surrounding government spending multipliers. To enhance the interpretation of policy effectiveness, we focus on two main metrics: (i) **impact multipliers**, which measure the instantaneous effect of an intervention on GDP and (ii) **long-run multipliers**, which capture the effect ten years after the intervention, approximating the final, "infinite-horizon" outcome.

For brevity, Table 1 presents results at the macro-area (NUTS-1) level and for Italy as a whole, where the latter are derived from a weighted average of macro-area estimates using GDP shares as weights. Results refer to responses to fiscal expansions.

Results confirm that exogenous, expansionary government spending shocks exert a positive and significant effect on regional output. However, we also observe (a) considerable variation in how each expenditure category affects local GDP across different regions and macro-areas; and (b) significant uncertainty surrounding the estimated multipliers, as captured by 68% (and 90%) confidence intervals.

The North-West and Centre exhibit the highest returns on investment, both on-impact and in the longer term, reflecting robust economic structures and comparatively more efficient resource utilization. In contrast, the North-East experiences greater uncertainty around both the instantaneous and long-term effects of investment. For the South and the Islands, multipliers are positive but lower on-impact in magnitude relative to the Centre-North. In the Islands, the instantaneous effect of a fiscal expansion is modest but grows considerably—and significantly—over time. However, in the South, the effects of government investment shocks remain uncertain, raising questions about the local conditions, governance capacity, and project execution that may be limiting the region's ability to realize consistent and long-lasting gains from capital spending.

Considering Italy as a whole, investment multipliers confirm the crucial role of spending in public investment in driving medium- and long-term economic growth.

Areas	Impact	68% CI	Long-run	68% CI
North-west	**4.153**	[2.065, 5.718]	**8.200**	[4.265, 9.787]
North-east	2.034	[-0.889, 4.147]	2.286	[-4.352, 4.202]
Centre	**3.831**	[2.279, 6.048]	**5.589**	[3.924, 11.189]
South	2.975	[0.593, 4.921]	4.655	[-1.222, 6.385]
Islands	**2.321**	[1.606, 3.129]	**4.597**	[2.964, 5.587]
Italy	**3.287**	[2.094, 4.148]	**5.481**	[2.263, 6.630]

Table 1: Investment multipliers. *Impact and Long-run multipliers are considered, along with the corresponding 68% confidence intervals. In bold the estimates that are significant with 90% confidence*

Table 2 summarizes government consumption multipliers across Italy's macro-areas. The North-West posts some of the highest near-term gains and a moderate but still positive outcome over time, while the Centre similarly exhibits a strong initial boost coupled with an appreciable long-run impact. However, the North-East shows a positive short-term response yet a non-significant effect in later periods, suggesting that consumption-led measures may provide a useful but less durable stimulus in that area.

Areas	Impact	68% CI	Long-run	68% CI
North-west	**3.675**	[3.126, 4.455]	2.612	[0.180, 3.293]
North-east	**2.991**	[1.795, 3.865]	1.287	[-1.572, 1.911]
Centre	**3.018**	[2.428, 3.560]	3.185	[0.980, 3.171]
South	**1.955**	[1.308, 2.506]	1.568	[0.451, 1.712]
Islands	**1.901**	[1.548, 2.164]	**1.907**	[1.131, 2.023]
Italy	**2.974**	[2.575, 3.324]	**2.222**	[0.573, 2.067]

Table 2: Consumption multipliers. *Impact and Long-run multipliers are considered, along with the corresponding 68% confidence intervals. In bold the estimates that are significant with 90% confidence*

Both the South and the Islands register lower consumption multipliers compared with the Centre-North, although still above unity at impact. Over the long run, their estimates point to more modest persistence of the effects of public spending on goods and services. For Italy as a whole, consumption stimulates an effective immediate response that decays over time, underscoring the notion that, although consumption spending can be quite effective initially, its long-term effect appears more limited relative to investment.

Policy Implications

Our analysis raises several policy implications:

- Structural Reforms. Even significant fiscal outlays can yield limited returns when institutions are not efficient. In areas with lower multipliers, coupling fiscal stimulus with complementary structural reforms can improve the overall effectiveness of spending.
- Tailored policies. Given the heterogeneous fiscal multipliers across regions, uniform spending programs may overlook local complexities, limiting beneficial effects. Customized fiscal interventions can help reduce regional divides, optimizing resource allocation.
- Long-Term Economic Sustainability. While investment multipliers tend to have larger and more persistent effects, consumption offers quicker but shorter-lived boosts. Increasing capital investment is essential for robust long-term growth. Strategic consumption spending can be used for immediate stimulus, particularly during downturns.
- Prudent Decision-Making Under Uncertainty: The estimated multipliers exhibit considerable uncertainty, highlighting the limitations of available data. Policymakers should exercise caution and consider this uncertainty when designing and implementing fiscal policies. This prudent approach may involve incorporating flexibility into policy design, allowing for adjustments as new information becomes available.

Recommendations

In order to enhance fiscal policy effectiveness, policymakers should:

- Implement Complementary Structural Reforms: Comprehensive reforms can amplify the effect of fiscal stimuli, reducing inefficiencies, attracting private investment, and strengthening the long-term impact of spending.
- Design Region-Specific Fiscal Interventions: Uniform spending programs may overlook local conditions. Policymakers should account for specific regional needs to optimize resource allocation and help close regional divides.
- Use Strategic Public Spending: Prioritize public investment to secure sustained, long-term growth, while deploying consumption-based measures for targeted, immediate economic impacts.

- **Enhance Monitoring and Evaluation Systems:** Adopt flexible strategies and robust tracking tools for assessing the long-term effectiveness of policy interventions. This allows policymakers to adjust spending priorities and refine programs based on real-world outcomes over time.
- **Acknowledge and Adapt to Uncertainty:** Given the inherent uncertainty in estimating fiscal multipliers, policymakers should adopt a cautious approach, incorporating flexibility into policy design and adjusting strategies as new data and outcomes become available.

Implementation Considerations

Successful implementation depends on some key factors:

- **Institutional Capacity**. Local and regional governments must be equipped with specialized training, professional expertise to identify, plan and execute high-impact projects.
- **Vertical Collaboration.** Strong alignment between national ministries, regional authorities, and local municipalities is necessary to ensure cohesive planning.
- **Horizontal Collaboration and Data Availability**. Cooperation among regions, coupled with contributions to national repositories, like the AMELIA platform, is essential for gathering consistent, high-quality region-level data.
- **Political Sustainability**. Securing broad endorsement from diverse stakeholders—local leaders, business groups, and the public— helps preserve policy momentum beyond individual electoral cycles, facilitating longer-term project success.

Conclusions

Accurate quantification of regional fiscal multipliers is instrumental in designing effective and equitable public spending strategies in Italy. This study shows that government investment exhibits deeper and longer-lasting effects on economic growth, while government consumption can offer a timely but shorter-lived economic boost. Substantial variations between macro-areas emphasize the importance of regionally tailored interventions and complementary structural reforms to address local bottlenecks and strengthen institutional frameworks.

By implementing comprehensive governance improvements, policymakers can amplify the impact of public expenditure, especially in areas where multipliers are lower. Well-coordinated strategies across all levels of government, robust data collection, and ongoing monitoring are also critical. Ultimately, a balanced approach that prioritizes investment yet deploys consumption strategically can stabilize demand in the short run while laying the foundations for sustained economic growth—thereby mitigating regional divides and bolstering Italy's long-term prosperity. However, the uncertainty surrounding these estimates in a data-scarce environment suggests that fiscal policy should be complemented with explicit measures of risk, recognizing the limitations of current estimations and allowing for greater adaptability in policy implementation.

Acknowledgement

This study was funded by the European Union - NextGenerationEU, in the framework of the "GRINS - Growing Resilient, INclusive and Sustainable project" (PNRR - M4C2 - I1.3 - PE00000018 – CUP J33C22002910001). The views and opinions expressed are solely those of the authors and do not necessarily reflect those of the European Union, nor can the European Union be held responsible for them.

References

1. Blanchard, O. J. and Leigh, D. (2013). Growth forecast errors and fiscal multipliers. American Economic Review, 103(3):117-120. https://doi.org/10.1257/aer.103.3.117
2. Caldara, D. and Kamps, C. (2017). The analytics of svars: a unified framework to measure fiscal multipliers. The Review of Economic Studies, 84(3):1015-1040. https://doi.org/10.1093/restud/rdx030
3. Cavaliere, G., Fanelli, L., and Mazzali, M. (2025). *Local fiscal multipliers in a data-scarce environment: The effectiveness of government spending across Italian regions*. Technical working paper GRINS.
4. Deleidi, M., Romaniello, D., and Tosi, F. (2021). Quantifying fiscal multipliers in italy: A panel svar analysis using regional data. Papers in Regional Science, 100(5):1158-1177. https://doi.org/10.1111/pirs.12620
5. Lucidi, F. S. (2022). The misalignment of fiscal multipliers in Italian regions. Regional Studies, pages 1-14. https://doi.org/10.1080/00343404.2022.2136648