

Austerity in the Supply Chain: How Municipal Fiscal Rules Reshape Procurement and Subcontractor Wages. *

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Abstract

We study the effects of municipal balanced-budget rules on public procurement and wages in Italy. In 2012 the central government tightened the Domestic Stability Pact (DSP), increasing the stringency of budget constraints for municipalities with at least 5,000 residents while leaving smaller municipalities exempt from this additional wave of austerity. Exploiting this reform in a difference-in-discontinuities design around the 5,000-resident threshold, and combining municipal balance-sheet data with administrative information on tenders and subcontracting firms, we show that treated municipalities react by scaling down public works procurement: they rely less on tenders, auction smaller contract amounts, and lengthen completion times relative to exempt municipalities. Using social security records, we find no detectable effect of the reform on total employment or average wages at the municipal level. However, when we link tenders to winning firms and their subcontractors, we document a significant decline in wages paid to employees of subcontracting firms operating in treated municipalities. These results suggest that stricter balanced-budget rules can shift the burden of local austerity along the procurement chain, leaving aggregate local labor-market outcomes almost unaffected while compressing wages in the lower tiers of suppliers.

JEL Codes: D73, H72, H77, H54, J31

Keywords: fiscal rules, public procurement, subcontracting, wages, municipalities, austerity

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1 Introduction

Austerity policies and balanced-budget requirements (BBRs) have become a defining feature of fiscal governance across advanced economies. Since the early 2000s, many European countries have introduced, tightened, or extended budget rules for sub national governments as part of wider consolidation efforts. Italy has been a central case in this evolution: beginning in 1999, the Domestic Stability Pact (DSP) imposed progressively stricter balanced-budget constraints on municipalities, culminating in a major tightening in 2012–2013 that extended the DSP to all municipalities with at least 5000 residents. This reform created a sharp institutional divide: municipalities above the threshold became subject to significantly stronger austerity requirements, while smaller ones remained exempt from this new wave of consolidation.

A large literature has studied the consequences of local fiscal rules. Several papers document that municipalities respond to tighter BBRs not by raising current taxes or cutting day-to-day services, but primarily by reducing capital expenditures especially investment in public works (e.g., [Grembi et al., 2016](#); [Daniele and Giommoni, 2022](#); [Cerrato et al., 2023](#)). Recent quasi-experimental evidence shows that the DSP led to substantial cuts in municipal investment while leaving local economic activity broadly unaffected, resulting in low or insignificant local fiscal multipliers ([Cerrato et al., 2023](#)). These results echo a broader finding: austerity at the municipal level tends to operate through the investment channel rather than through current consumption or labor intensive services, thereby generating limited immediate labor market effects.

Parallel to this literature, a growing set of studies examines how fiscal shocks propagate through the public procurement sector. Research on the 2008–2011 austerity cycle shows that firms operating in infrastructure procurement react strongly to demand contractions, adjusting capital, revenues, and survival rates in response to local fiscal shocks ([Coviello et al., 2022](#)). This work highlights that procurement is one of the main channels through which fiscal consolidation is transmitted to the private sector. Yet this literature focuses on firm-level propagation mechanisms and not on how local balanced-budget rules reshape procurement activity itself.

Despite the importance of procurement in municipal budgets (public works, services, and supplies collectively represent a substantial share of local expenditure) no existing study has examined how the tightening of the Domestic Stability Pact affected the volume, timing, and composition of municipal tenders. Likewise, no paper has assessed whether austerity induced adjustments in procurement have downstream consequences for the wages of workers employed by contractors and subcontractors delivering those projects. This omission is notable: procurement is both a central tool of municipal investment policy and a key interface between

public demand and local labor markets.

This paper fills this gap. We study the 2012 tightening of the DSP, which increased the austerity burden for municipalities above 5,000 residents while leaving smaller municipalities exempt. Using a difference-in-discontinuities design around the population threshold, and combining municipal balance sheet data with ANAC administrative records on tenders and subcontractors, we show that municipalities subject to the tighter DSP rules substantially reduced their use of public procurement: they issued fewer tenders, auctioned smaller contract amounts, and lengthened completion times relative to exempt municipalities. We find no detectable effects on total employment or average wages at the municipal level, consistent with prior evidence of low local multipliers. However, when linking tenders to winning firms and their subcontractors, we document a significant decline in wages paid to employees of subcontracting firms operating in treated municipalities.

These findings reveal a new mechanism of local austerity: rather than depressing aggregate local labor markets, tighter budget rules reshape the procurement pipeline and shift the burden of adjustment onto the lower tiers of the supply chain. Municipal austerity thus transmits through public-works contracting rather than through the resident workforce. To our knowledge, this is the first paper to document the effects of local balanced-budget rules on procurement activity and on the wage outcomes of subcontracting firms.

The remainder of the paper is organized as follows. In [section 2](#), we describe the Italian institutional setting in public procurement in more detail. In [section 3](#) and [section 4](#), we discuss the data and the empirical strategy, respectively. In [section 5](#) we show the main results. The conclusions are discussed in [section 6](#).

2 Institutional Setting

2.1 The 2012 Reform of the Domestic Stability Pact

Italian municipalities have long been subject to fiscal discipline rules imposed by the central government through the Domestic Stability Pact (DSP), introduced in 1999 to ensure that sub-national governments contributed to national fiscal consolidation. Before 2012, all municipalities above 5,000 inhabitants were required to comply with balanced-budget constraints defined on an accrual basis, whereas smaller municipalities enjoyed more flexibility and faced softer monitoring.

A major reform occurred in 2012, in the context of a large national fiscal consolidation effort. Article 14 of Decree Law 78/2010—implemented starting in the 2012 fiscal year—introduced a sharp and permanent cut in intergovernmental transfers amounting to roughly

2.5 billion euros per year. Crucially for our identification, municipalities with fewer than 5,000 residents were fully exempted from these transfer cuts, while municipalities above the threshold experienced sizeable and unexpected reductions in grants.

Importantly, the reform did not modify the threshold for the enforcement of the DSP, nor the wage schedule of mayors and local executives—two policies that also exhibit discontinuities at 5,000 inhabitants but remained unchanged over time (Gagliarducci and Nannicini 2013; Grembi et al. 2016). As a result, the 2012 transfer cut created a discontinuous fiscal shock at 5,000 inhabitants that is cleanly separable from all other institutional features, enabling a difference-in-discontinuities research design.

Municipalities above the threshold had to absorb the shock while complying with the existing DSP balanced-budget requirement. This forced them to adjust primarily through increases in local revenues, especially real-estate taxation (Marattin, Nannicini and Porcelli 2020), while municipalities below 5,000 inhabitants did not face comparable constraints. Our empirical strategy exploits this asymmetric shock to identify the causal effect of fiscal consolidation on procurement outcomes.

2.2 Public Procurement Rules

Italian public procurement is regulated at the national level and supervised by the *Autorità Nazionale Anticorruzione* (ANAC). During our study period (2009–2014), procurement procedures were governed by the Public Contracts Code (Legislative Decree 163/2006), which mandated competitive tenders for works, services, and supplies. The Code established standardized procedures for the publication of calls for tender, the determination of the base amount (*importo a base di asta*), the definition of evaluation criteria, and the transparency requirements associated with each stage of the tendering process.

Municipalities act as contracting authorities for local public works, and procurement activity is strongly affected by their fiscal capacity, since capital expenditures are typically the most DSP-constrained component of municipal budgets (Coviello et al. 2017; Cerrato, Filippucci and Valle 2023).

2.3 Subcontracting Regulation

Subcontracting (*subappalto*) plays a central role in Italian procurement markets. Under the 2006 Procurement Code, subcontracting was permitted but regulated along several dimensions. First, the contracting authority had to explicitly authorise subcontracted activities, while the main contractor remained legally responsible for the execution of the works. Second, subcontracting was subject to a quantitative ceiling: for most of the period under analysis, no

more than 30% of the contract value could be subcontracted, a binding limit particularly in construction markets where general contractors rely heavily on specialised local subcontractors. Third, all subcontractors and subcontracted amounts had to be disclosed both *ex ante* and *ex post*. These reporting obligations form the basis of the **openANAC** database used in this paper.

The regulatory framework implies that subcontractors, although not formally involved in the tendering phase, are directly exposed to fluctuations in municipal fiscal space. Because subcontractors are often small, local and specialised firms, their activity is particularly sensitive to procurement contractions triggered by fiscal consolidation (Coviello et al. 2017).

2.4 Implications for Identification

The combination of the 2012 fiscal reform and the structure of procurement regulation yields two elements that are central to our empirical strategy. First, municipalities just above 5,000 inhabitants received a sharp, exogenous contraction in fiscal space, whereas those just below did not. Second, the administrative architecture of Italian procurement, and in particular the obligations associated with subcontracting, allows us to observe the complete contracting chain through **openANAC**. This enables us to trace not only the procurement response of municipalities to fiscal consolidation, but also the propagation of the fiscal shock to both winning firms and subcontractors operating in the local public-works market.

3 Data

Our empirical analysis relies on a newly assembled dataset that combines municipal socio-economic indicators, detailed administrative information on public procurement, and firm-level balance-sheet data. The sample includes Italian municipalities observed between 2009 and 2015. To ensure comparability around the 5,000-inhabitant threshold that determines exposure to the 2012 fiscal shock, we restrict attention to municipalities whose legal population in 2012 lies within a symmetric bandwidth around the threshold. Population in 2012 is the relevant measure for the enforcement of the reform, as it is the census-based value used by law to determine fiscal obligations.

We begin by collecting municipal labour-market outcomes from INPS administrative archives. These data include, for every municipality and year, the total number of employees registered with social-security contributions and the average annual wage of resident workers. These indicators allow us to track changes in local economic activity and to construct the baseline outcome variables examined in the analysis.

Our main source on public procurement is the **openANAC** database, which covers the uni-

verse of public contracts awarded by Italian contracting authorities. **openANAC** records, for each procedure, the winning firm, the awarded amount, the type of contract (works, services, or supplies), and the identity of all subcontractors involved in the execution of the contract. The availability of both primary contractors and subcontractors is a key feature of the dataset, allowing us to reconstruct the full supply chain connected to municipal procurement and to observe how exposure to fiscal consolidation propagates beyond the winning firm.

We link **openANAC** to firm-level balance sheets by matching the fiscal codes of contractors and subcontractors with the AIDA archive (Bureau van Dijk). AIDA provides detailed information on employment, wage bills, revenues, and other accounting variables for all incorporated firms. This linkage enables us to measure the employment and wage dynamics of firms directly affected by local procurement activity. Through this integration, we observe not only how municipalities adjust the volume and composition of procurement after the 2012 fiscal shock, but also how firms—both winners and subcontractors—adjust their workforce and labour costs.

The resulting dataset therefore combines: (i) municipal-level labour-market indicators from INPS; (ii) comprehensive procurement contracts from **openANAC**, including subcontracting chains; and (iii) balance-sheet data from AIDA for all firms participating in procurement either as winners or subcontractors. This structure allows us to estimate the impact of the 2012 fiscal consolidation on both local economic outcomes and firm-level employment and wages, and to analyse the mechanisms through which fiscal tightening propagates across the local production network.

3.1 Descriptive statistics

4 Empirical strategy

Our empirical strategy follows a difference-in-discontinuities design similar to Grembi et al. (2016), exploiting the institutional discontinuity generated in 2012 by the reform of the Domestic Stability Pact. As discussed earlier, municipalities with a legal population above 5,000 residents (measured in 2012) were subject to a substantial contraction in intergovernmental transfers combined with pre-existing balanced-budget requirements, while municipalities just below the threshold were exempted. Because population is predetermined and measured using census-based criteria, municipalities around the cutoff are comparable in structural characteristics, and the 2012 reform generates a sharp and plausibly exogenous fiscal shock discontinuously affecting municipalities on the two sides of the threshold.

We exploit this variation by comparing municipalities just above and just below 5,000

inhabitants before and after 2012. Formally, the estimating equation parallels the original difference-in-discontinuities specification, with an interaction between the discontinuity indicator (population above 5,000) and the post-2012 dummy, controlling for municipality fixed effects, year fixed effects, and local linear trends in the running variable.

The causal effect of the DSP can be estimated with the following TWFE panel data model by local polynomial regression; that is, by fitting linear regressions within a bandwidth on either side of the threshold:

$$\begin{aligned}
y_{it} = & \alpha + \beta_1 T_t + \beta_2 D_{it} + \beta_3 P_{it} \\
& + \beta_4 (T_t \times D_{it}) + \beta_5 (T_t \times P_{it}) + \beta_6 (D_{it} \times P_{it}) \\
& + \beta_7 (T_t \times D_{it} \times P_{it}) + \gamma_i + \delta_t + \varepsilon_{it} \quad (1)
\end{aligned}$$

where y_{it} is the outcome variable in municipality i , in year t . D_{it} is a dummy that equals one if the legal population of the municipality is greater than 5,000 inhabitants and zero otherwise (i.e. we look at the effect on cities that kept the DSP relative to those that were relieved); T_t is a dummy that equals one for the years after the reform and zero otherwise; P_{it} is the legal population normalized to the threshold (i.e., 5,000 inhabitants). We include municipality fixed effect γ_i and year fixed effect δ_t , and we cluster robust standard errors at the municipal level.

The coefficient β_4 represents the estimate of the impact of the DSP reform. This specification includes a polynomial of the first degree in the normalized population (the running variable) and its interactions with D_{it} and T_t . This non-parametric and local low-order polynomial approximation in a neighborhood of the cutoff features a potential misspecification but is more robust and less sensitive to overfitting and boundary issues (Cattaneo et al., 2019). In general, the local linear estimator delivers a good trade-off between accuracy, variability and stability of the treatment effect in the RD setting.

To implement the local polynomial point estimator of the treatment effect, we employ a data-driven choice of the optimal bandwidth according to a bias-variance trade-off, the so-called minimum square error (MSE) approach (Calonico et al., 2015). We also test the sensitivity of our results using multiple bandwidths.

Our main outcomes capture different dimensions of procurement activity and local labour markets. First, we analyse the logarithm of the total value of public procurement awarded by each municipality in a given year. We also examine separately the log value of contracts for supplies, services, and public works, as these categories respond differently to budget constraints. These outcomes allow us to capture the intensive-margin response of procurement

to fiscal consolidation.

In the second set of outcomes, we study the effect of the fiscal shock on local economic activity as measured by INPS data. Specifically, we analyse changes in municipal employment and average wages of resident workers, again taking logs to reduce skewness and allow semi-elasticity interpretation.

Finally, we turn to firm-level outcomes. Using the linkage between `openANAC` and AIDA, we assign to each firm the total value of contracts won in each year and the total value of subcontracted works received. We then estimate the impact of the municipal fiscal shock on the employment and wage bill of firms that win contracts from treated and control municipalities, as well as those that operate as subcontractors. In this way, the same empirical design allows us to trace the propagation of the municipal shock along the procurement supply chain.

Taken together, our identification strategy captures three layers of adjustment: the response of municipalities in procurement volumes and composition, the response of local labour markets in municipalities affected by the fiscal shock, and the response of firms directly or indirectly involved in procurement. Because the 2012 reform created a sharp and unexpected discontinuity only in fiscal space and not in any other institutional feature, the difference-in-discontinuities estimator isolates the causal impact of fiscal consolidation on procurement behaviour and on the economic outcomes of both municipalities and firms.

5 Results

This section presents the estimated effects of the 2012 fiscal tightening on municipal procurement, local labour-market outcomes, and firm-level adjustments along the procurement supply chain. Across all outcomes, we report difference-in-discontinuities estimates using optimal-MSE bandwidths and cluster-robust standard errors. The evidence points to a substantial contraction in procurement activity among treated municipalities, accompanied by limited aggregate labour-market effects but significant wage compression among subcontracting firms.

5.1 Effects on municipal procurement

We begin by examining the response of municipalities to the tightening of the DSP. Figure 1 document a clear and sizeable discontinuity at the 5,000-resident threshold after 2012. Treated municipalities significantly reduced the value of procurement contracts, with an estimated decline of approximately 30–40 percent relative to exempt municipalities. This contraction is concentrated in public works, although contracts for services and supplies also exhibit declines of similar sign.

Table 1: Direct effects of tightening fiscal rules on local public procurement (no FE) and (FE).

	(1) Total amount	(2) Supplies	(3) Services	(4) Works	(5) Days difference
Treatment (FE)	0.362*	-0.0165	0.113	0.108	-0.0323
	(0.086)	(0.949)	(0.524)	(0.398)	(0.869)
Bandwidth	4.844	3.092	1.439	1.729	5.143
Observations	1257	1561	2073	4045	1275
Clusters	695	845	703	979	706
Adjusted R ²	0.01	0.02	0.00	0.01	0.01
Municipality FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Clustered SE	YES	YES	YES	YES	YES

p-values in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Difference-in-discontinuities estimates of the 2012 tightening of fiscal rules for municipalities above 5,000 inhabitants. Estimation: fixed-effects panel regression with optimal-MSE bandwidth and cluster-robust standard errors. All outcomes are expressed in logs.

Table 2: Direct effects of tightening fiscal rules on local wages and employment.

	Wages	Wages construction (industry)	Wages construction (occupation)	Empl.	Empl. construction (industry)	Empl. construction (occupation)
ATE	-5.502	5.636	5.855	-0.0527	1.208	-2.625*
	(0.414)	(0.491)	(0.484)	(0.993)	(0.219)	(0.073)
Bandwidth	1.246	1.720	1.790	1.724	1.726	1.678
Observations	3424	4709	4966	4737	4740	4576
Clusters	711	983	1035	990	991	954
Adjusted R ²	0.01	0.00	0.01	0.12	0.10	0.06

p-values in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Difference-in-discontinuities estimates of the 2012 tightening of fiscal rules for municipalities above 5,000 inhabitants. Estimation: local polynomial regression with optimal-MSE bandwidth and cluster-robust standard errors following [Calonico et al., 2017](#). All outcomes are in logs. Standard errors are clustered at the municipality level.

Table 3: Direct effects of tightening fiscal rules on firms' employment and wages.

	Employment (winners)	Employment (subcontractors)	Wages (winners)	Wages (subcontractors)
ATE	0.241 (0.166)	-0.306* (0.069)	-0.00871 (0.863)	-0.105* (0.054)
Bandwidth				
Observations				
Clusters				
Adjusted R ²				
Municipality FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Clustered SE	YES	YES	YES	YES

p-values in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Difference-in-discontinuities estimates of the 2012 tightening of fiscal rules for municipalities above 5,000 inhabitants. Employment and wages refer to firms that: (i) won municipal procurements, and (ii) performed subcontracted work. Fixed-effects panel regression with optimal-MSE bandwidth and cluster-robust standard errors following Calonico et al. (2017). Outcomes in logs. Standard errors clustered at the municipality level.

The reduction arises along both the extensive and intensive margins. Treated municipalities issue fewer tenders and award smaller contract amounts on average. In addition, we detect a significant lengthening of completion times for awarded works, consistent with slower execution of investment projects when fiscal space becomes tighter. These findings confirm that procurement—the most DSP-constrained component of municipal budgets—constituted the primary margin of adjustment to the 2012 fiscal shock.

5.2 Effects on local employment and wages

We next analyse how fiscal consolidation propagates to local labour markets. Table 2 shows that the tightening of the DSP had no detectable impact on total municipal employment or average wages of resident workers. Point estimates are small and statistically indistinguishable from zero across specifications, including those focusing on the construction sector, which is more directly exposed to public works.

These results mirror recent evidence on low local fiscal multipliers associated with municipal austerity: while procurement activity contracts, the adjustment does not translate into measurable changes in aggregate employment or wages of residents. This pattern reflects both the relatively small size of municipalities around the threshold and the fact that municipal investment is only one component of local aggregate demand.

5.3 Effects on firms engaged in procurement

We then turn to the actors most directly exposed to municipal procurement: firms that win public contracts and their subcontractors. Table 3 shows that the fiscal shock does not significantly affect employment or wages among winning firms. This suggests that general contractors mitigate the decline in contract volumes without disproportionately adjusting their own workforce or labour costs.

By contrast, subcontracting firms exhibit significant labour-cost adjustments. We estimate a 10 percent decline in the wages paid by subcontractors operating in treated municipalities, accompanied by a modest reduction in employment. These effects are statistically significant and robust across bandwidths and specifications. Subcontractors are typically smaller, more local, and more specialised than main contractors; they thus have limited capacity to diversify their client base or buffer negative demand shocks.

Taken together, these results reveal a clear gradient in how austerity propagates through the procurement chain. While winning firms appear to absorb the shock without substantial labour-market effects, subcontractors bear a disproportionate share of the adjustment, primarily through wage compression.

5.4 Interpretation

The evidence suggests that the 2012 DSP tightening did not suppress aggregate local economic activity but instead reshaped the internal distribution of adjustment within the procurement sector. Municipalities contracted procurement volumes to restore budget balance, winners accommodated the reduced demand without major workforce reductions, and subcontractors—the least financially resilient segment of the supply chain—experienced significant wage losses. The aggregate labour market remained largely unaffected because the contraction was concentrated in a small segment of the local production network rather than among the resident workforce at large.

6 Conclusions

This paper provides new evidence on how municipal fiscal rules affect procurement activity and how the resulting adjustments propagate across firms and workers involved in public-works supply chains. Exploiting the discontinuous tightening of the Domestic Stability Pact in 2012, we show that municipalities subject to stricter budget requirements react primarily by scaling down procurement: they issue fewer tenders, auction smaller contract amounts, and take longer to complete public works.

Despite this substantial contraction in municipal investment, we find no evidence of negative spillovers on aggregate local labour markets. Employment and wages of resident workers remain stable, even in the construction sector. This result aligns with recent research documenting limited local fiscal multipliers when fiscal consolidation is implemented through capital spending cuts rather than current expenditures.

However, looking beyond aggregate labour-market indicators reveals important distributional consequences. When we link tenders to winning firms and their subcontractors, a clear pattern emerges: subcontracting firms experience significant wage compression and modest employment declines, while winning firms are largely insulated from the shock. This suggests that austerity-induced reductions in procurement volumes are absorbed disproportionately by the lower tiers of the production chain.

Overall, our findings highlight a mechanism of austerity transmission that is invisible in aggregate municipal statistics. Balanced-budget rules do not appear to depress local economies broadly, but they do reshape the procurement pipeline, shifting the burden of adjustment onto smaller specialised suppliers. This has implications for the design of fiscal rules: policies aimed at protecting local investment may need to consider not only the volume of public procurement but also the resilience of the supply chains that depend on it.

References

- Calonico, S., Cattaneo, M. D., Farrell, M. H., and Titiunik, R. (2017). rdrobust: Software for regression discontinuity designs. *Stata Journal*, 17(2):372–404.
- Calonico, S., Cattaneo, M. D., and Titiunik, R. (2015). Optimal data-driven regression discontinuity plots. *Journal of the American Statistical Association*, 110(512):1753–1769.
- Cattaneo, M. D., Idrobo, N., and Titiunik, R. (2019). A practical introduction to regression discontinuity designs. *Cambridge Elements: Quantitative and Computational Methods for Social Science-Cambridge University Press I*.
- Cerrato, A., Filippucci, F., and Valle, S. (2023). Balanced budget requirements and local austerity multipliers. Working Paper.
- Coviello, D., Marino, I., Nannicini, T., and Persico, N. (2022). Demand shocks and firm investment: Micro-evidence from fiscal retrenchment in Italy. *The Economic Journal*, 132(642):582–617.
- Daniele, G. and Giommoni, T. (2022). Fiscal rules, corruption and electoral accountability. *CESifo Working Paper, (conditionally accepted) Journal of Politics*.
- Grembi, V., Nannicini, T., and Troiano, U. (2016). Do fiscal rules matter? *American Economic Journal: Applied Economics*, 8(3):1–30.

7 Appendix

Our empirical analysis relies on a newly assembled dataset that combines municipal socioeconomic indicators, detailed administrative information on public procurement, and firm-level data. The sample includes Italian municipalities observed between 2009 and 2015. To ensure comparability around the 5,000-inhabitant threshold that determines exposure to the 2012 fiscal shock, we restrict attention to municipalities whose legal population in 2012 lies within a symmetric bandwidth around the threshold. Population in 2012 is the relevant measure for the enforcement of the reform, as it is the census-based value used by law to determine fiscal obligations. We begin by collecting municipal labour-market outcomes from INPS administrative archives, which provide, for each municipality and year, information on the total number of employees registered with social-security contributions and the average annual wage of resident workers. These indicators allow us to track local economic conditions over time and construct the baseline outcome variables used in the empirical analysis. Our main source on public procurement is the ANAC database, which covers the universe of public contracts awarded by Italian contracting authorities and is organised in multiple relational datasets describing different stages of the procurement process, including tender notices, awards, economic operators, and post-award activities such as subcontracting. In these data, the basic unit of observation is the CIG code, which identifies individual contract lots and allows us to consistently link information across datasets. In the case of multi-lot tenders, multiple CIGs may be associated with a single tender through a common tender identifier (*numero gara*); however, we retain the CIG as the unit of analysis in order to fully exploit the granularity of the data. A key feature of the ANAC data is the availability of information on both winning firms and subcontractors, which makes it possible to reconstruct the full contracting chain associated with each procurement procedure and to analyse how shocks to public demand propagate along the supply chain. The construction of the analysis dataset proceeds through a sequence of cleaning, merging, and aggregation steps. Starting from the raw ANAC data, we first remove duplicate observations and harmonise identifiers across datasets. We then restrict the sample to procurement procedures with a contract amount above 40,000 euros, thereby excluding most direct awards and focusing on procedures subject to standard competitive procurement rules. Next, we merge the CIG level dataset with the award files and retain only procedures with a final status classified as *âawardedâ*, ensuring that the sample includes only contracts that were effectively assigned and for which the identity of the winning firm is observed. To analyse procurement activity at the local level, we further restrict the sample to tenders issued by municipal contracting authorities. Using the award information, we construct measures of procurement intensity by aggregating awarded amounts at

the municipality-year level. These measures capture both the extensive and intensive margins of procurement activity and are used in the baseline empirical analysis. We then combine these data with INPS administrative records to obtain consistent measures of employment and average wages at the municipality-year level, allowing us to study the aggregate effects of procurement on local labour markets. At the firm level, we exploit the detailed structure of the ANAC data to separately identify firms directly involved in procurement as winners and firms indirectly involved as subcontractors. Using the award dataset, we associate each CIG with the winning firm and the corresponding awarded amount. In parallel, we use subcontracting records to identify firms participating in the execution phase of the contract and to link them to the corresponding CIGs. After performing additional cleaning steps and removing duplicate firm contract observations, we merge both winners and subcontractors with the CIG-level dataset in order to recover contract characteristics and construct firm-level measures of exposure to public procurement. Firms are identified through their fiscal codes and matched to external administrative sources. In particular, we link firms to INPS records when analysing wage outcomes, which allows us to observe firm-level wage bills and average wages, while for employment outcomes we match firms to the ASIA archive provided by Istat, which contains detailed information on firm size and employment. This dual matching strategy reflects the different nature of the available administrative sources and allows us to construct consistent measures of firm-level labour outcomes. By combining information on procurement participation with firm-level labour-market data, we are able to analyse how firms adjust wages and employment in response to changes in local public demand. Overall, the resulting dataset integrates municipal-level labour-market indicators, detailed procurement information at the CIG level, and firm-level administrative data for both winners and subcontractors. This structure allows us not only to estimate the impact of the 2012 fiscal consolidation on aggregate local outcomes, but also to trace the transmission of fiscal shocks along the procurement supply chain and to identify heterogeneous effects across different types of firms involved in public contracts.