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Contract modifications: good in practice, bad in theory? Exploring new data concerning Italy

Stéphane Saussier*

Abstract

This paper explores the issue of renegotiation in Italian public procurement contracts, offering a new perspective through the use of original data. We focus on the European Union directives introduced in 2014 and implemented since 2016, which aim to enhance transparency in contractual renegotiations (Directives 2014/23/EU, 2014/24/EU, 2014/25/EU). These directives are the first to address both the execution and award procedures of public contracts, mandating that public contractors disclose significant contract modifications. Using web-scraped contract modification notices (CMNs) published between January 2016 and December 2023 in Italy, we compile a dataset of 1,577 CMNs after data. To assess how renegotiations are perceived by public authorities, we conduct a sentiment analysis of the justifications provided for these modifications. Our preliminary results suggest that renegotiations are not viewed negatively by public authorities, with many justifications emphasizing cooperative behaviors between contracting parties.

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Sintesi - La rinegoziazione dei contratti: buona in pratica cattiva in teoria? Esplorando nuovi dati riguardanti l'Italia

Questo paper esplora la questione delle rinegoziazioni nei contratti di approvvigionamento pubblico italiani, offrendo una nuova prospettiva attraverso l'uso di dati originali. Ci concentriamo sulle direttive dell'Unione Europea introdotte nel 2014 e implementate dal 2016, che mirano a migliorare la trasparenza nelle rinegoziazioni contrattuali (Direttive 2014/23/EU, 2014/24/EU, 2014/25/EU). Queste direttive sono le prime a trattare sia l'esecuzione che le procedure di aggiudicazione dei contratti pubblici, imponendo ai contrattori pubblici di divulgare le modifiche significative ai contratti. Utilizzando avvisi di modifica del contratto (CMN) estratti dal web e pubblicati tra gennaio 2016 e dicembre 2023 in Italia, abbiamo compilato un dataset di 1.577 CMN dopo la pulizia dei dati. Per valutare come le rinegoziazioni siano percepite dalle autorità pubbliche, abbiamo condotto un'analisi del sentiment delle giustificazioni fornite per queste modifiche. I nostri risultati preliminari suggeriscono che le rinegoziazioni non siano viste negativamente dalle autorità pubbliche, con molte giustificazioni che enfatizzano comportamenti cooperativi tra le parti contraenti.

JEL Classification: HR7;L33; D73; K23; L51.

Parole chiave: Appalti pubblici; Rinegoziazione dei contratti; Italia.

Keywords: Public procurement; Contract renegotiation; Italy.

1. Introduction

Considering that it represents around 13% of GDP in OECD countries and 15% in EU countries (OECD 2023), it is crucial for economists and policymakers to comprehend public procurement and explore ways to enhance its efficiency (Saussier et Tirole 2020).

For a long time, research has concentrated on the problem of asymmetric information, exploring strategies to encourage private companies to disclose their costs through competitive tendering (Tadelis 2012). However, considering transaction costs complicates the contracting process often making incomplete contracts and renegotiation the norm rather than the exception.

In this vein, transaction cost economics (Williamson 1985) as well as property rights theory (Hart and Moore 1988) have emphasized that complex contracts are inevitably incomplete and therefore renegotiated, relegating questions of incentives to the background (Bajari et al. 2014). These two theories have greatly advanced our understanding of public procurement and the factors that influence its efficiency. For instance, Transaction Cost Theory has proven invaluable in explaining the management modes and contractual decisions made by public authorities. Similarly, Property Rights Theory has, among other contributions, highlighted the significant role of verifiability in determining the ability of public authorities to outsource specific services. It also suggest that renegotiations are unavoidable and might degrade cooperation between contracting parties, increasing shading (Fehr, Hart, et Zehnder 2011), if formal relational contracts with guiding principles are not put in place (Frydlinger et Hart See the updated bibliography Frydlinger et Hart (2024); Frydlinger, Hart, et Vitasek 2019).

While the aforementioned contract theories provide valuable insights into

the analysis of public contracts, they often overlook an important and crucial aspect. Specifically, one of the key features of public contracts is that they are subject to public oversight, as they involve the use of public funds.

Public scrutiny and the demand for transparency can be justified by the risks of corruption. In this context, political opponents, representatives of taxpayers such as auditors, and even competing suppliers can serve as valuable watchdogs to ensure the accountability of public buyers to taxpayers. However, public oversight is not always free from ulterior motives, and these same competitors, auditors, and political opponents may act as opportunistic third parties, more focused on the failure than the success of public decision-makers' actions. As Moszoro and Spiller (2014) suggest, public contracts are characterized by inherent differences due to the significant oversight and control exercised by political opponents and interest groups, who have a vested interest in challenging and disrupting the contractual relationship. Consequently, public contracts are often influenced by political considerations and public scrutiny, which can restrict the flexibility of public authorities in negotiating and executing such contracts (Beuve et al. 2019). One of the outcomes of this dynamic is that public contracts are subject to intrinsic rigidities, independent of corruption concerns.

The recognition that public oversight is not always free from negative intentions and that it impacts public contracts is also reshaping the perception of renegotiation. While proponents of incentive theory argue that “*high rates of contract renegotiation have raised serious questions about the viability of the concession model in developing countries*” (Guasch et al. 2008, p. 421), others, acknowledging the need for renegotiation in public contracts due to their inherent differences from private contracts, conclude that “*the frequency of contract renegotiation may give concessions a ‘relational’ quality*” (Spiller 2009,

p. 63). A growing body of empirical research supports this view (Beuve et al. 2023; Beuve and Saussier 2021), suggesting that allowing public procurement officers greater discretion during tender procedures may be advantageous (Decarolis et al. 2016; Coviello et al. 2018; Kang and Miller 2021). However, it is crucial to emphasize that the potential benefits of granting greater discretion to public officials throughout the contract lifecycle depend on the strength of the institutional framework as well as the integrity and competence of the officials involved.

In this paper, we examine the issue of renegotiation in Italian public procurement contracts from a fresh perspective, utilizing original data. We draw on the European Union directives introduced in 2014 and implemented across Europe since 2016, which aim to improve transparency in contractual renegotiations (Directives 2014/23/EU, 2014/24/EU, 2014/25/EU). For the first time, these directives address both the execution of public contracts and the procedures for awarding contracts. They require public contractors to disclose significant contract modifications. We web-scraped contract modification notices (CMNs) that were published between January 2016 and December 2023 for Italy. After cleaning the data and focusing on public contracts governed by the 2014 public procurement directives, the dataset includes 1,577 CMNs. To evaluate how renegotiations are perceived by public authorities, we conducted a sentiment analysis on the justifications for contract modifications provided by these authorities. This analysis aims to assess the tone and sentiment expressed in the justifications, which can provide insights into the reasoning behind the contract changes and highlight any potential moral hazard concerns or positive outcomes (See Auriol et Saussier 2025; Deodato et al. 2025). Notably, our preliminary findings indicate that renegotiations are not viewed negatively by public authorities.

Instead, the justifications frequently highlight cooperative behaviors between the contracting parties.

The paper is organized as follows. We begin by reviewing the academic literature on contract modifications in public contracts, followed by a presentation of our data. Next, we conduct a sentiment analysis on the justifications for contract modifications and present the key findings. Conclusions follow.

2. Contract Modifications in Public Contracts

Public contracts and their renegotiations are subject to intense scrutiny due to their involvement in services of general interest. Guasch (2004) provides numerous examples of renegotiations in public-private agreements. By examining over 1,300 concession contracts signed in Latin American and Caribbean countries between the mid-1980s and 2000, he showed that 55% of transportation contracts and 74% of water and sanitation contracts were renegotiated, typically two years after their signature date on average. Some of these renegotiations resulted in contract terminations. Similar rates of renegotiations in public contracts have been observed in other countries and sectors (See Table 1).

Table 1 Rate of public contract renegotiation found in some empirical studies

Geographical Area	Sector	% of renegotiated contracts	Average renegotiations per contract	References
Latin American Countries	All sectors ¹	41%		(Jose-Luis Guasch 2004)
	Transport	55%		
	Water	74%		
	Water and Transport	53%		(Guasch, Laffont and Straub 2008)
	Electricity	41%		(J. L. Guasch et al. 2017)
	Transport	78%		
	Water	87%		
	Social Sectors	39%		
Chile	Highways		3	(Engel et al. 2009)
Brazil	Transport		1.46	(Moore, Straub et Dethier 2014)
Chile			2.73	
Colombia			7.57	
Peru			2.58	
Peru	All sectors ²		2.74	(Bonifaz et Saavedra 2023)
United States	Highways	40%		(Engel & al 2011)
France	Highways	50%		(Athias et Saussier 2007)
	Car Parks	73%		(Beuve et Saussier 2021)
Portugal	Water	100%		(Cruz et Marques 2013)
	Road	100%		
	Rail	100%		
	Health	20%		
	Port	14%		
	Energy	19%		
Portugal	Roads	100%		(Sarmiento et Renneboog 2021)
	Railways	50%		
	Health	10%		
	Security	100%		

Source: (Auriol et Saussier 2025)

- 1 Guasch (2004) studied water, transport, electricity and telecommunication sectors. Electricity and telecommunication concession contracts are characterized by fewer renegotiations compared to water and transport concession contracts.
- 2 Studied sectors in Bonifaz et Saavedra (2023) are water, sanitation, transportation, communications and energy.

2.1. Renegotiations as opportunistic behavior

Guasch (2004) argues that renegotiation is, at first glance, a result of opportunistic behavior. Whether initiated by the private or public party, renegotiations often reflect an intent to deviate from the original contractual terms and modify them to one's advantage. When renegotiations are initiated jointly by both parties, they can also take the form of corrupt agreements, ultimately harming end users. In their empirical analysis of renegotiations of concession contracts in Latin America, Guasch et al. (2008) identify the three most common outcomes: extensions of deadlines for investment requirements (69%), reductions in investment requirements (62%), and price increases (62%). These empirical findings are supported by more recent research using updated data (J. L. Guasch et al. 2017).

Guasch et al. (2008) interpret private operator opportunism in renegotiations as a result of aggressive bidding in the absence of firm government commitment *ex ante*. They demonstrate that the likelihood of public contract renegotiation increases when institutional quality is lower, particularly in developing countries. Furthermore, recent empirical studies appear to support this interpretation, even in the context of developed countries. For example, Brogaard, Denes, et Duchin (2021) show that in the United States, politically connected firms often win public contracts through aggressive bids, fully aware that they can later engage in renegotiation strategies to maximize the overall value of the transaction. This effect diminishes abruptly when the relevant politician exits political life.

Such findings, which may also reflect collusive behavior between government officials and local bidders, align with the recent work by Coviello et Gagliarducci (2017). In their analysis of Italian public works, the authors

examine delivery delays as a measure of ex post renegotiation of the original contract deadlines. While nearly 90% of the projects are delivered on time, their evidence suggests that the number of terms a government official has held in office increases the number of days of delay in the delivery of public works, with a delay of approximately one month per term in office.

Finally, renegotiations can serve as a tool for incumbent governments to bypass budgetary constraints before elections (Engel, Fischer, et Galetovic 2019) in his seminal work on renegotiations Guasch (2004). For example, Le Squeren et Moore (2015) identify a political cycle in public procurement renegotiations in France. Using a difference-in-difference methodology, the authors demonstrate that, in contrast to private contract renegotiations, public contract renegotiations significantly increase prior to local elections. Specifically, renegotiations aimed at altering end-user fees or the financial aspects of the contract (e.g., the remuneration of one of the parties) rise before elections, while other types of renegotiations remain unaffected.

Ultimately, widespread renegotiations are often seen as undesirable consequences of the increasing involvement of the private sector in public services (Albalade et Bel 2009; Sarmiento et Cruz 2018). Regardless of who initiates the renegotiation process, the limited empirical literature on the topic typically views renegotiations as negative events, rarely considering them as positive developments. This perspective is reinforced by several empirical studies, including those referenced earlier in this paper.

Nevertheless, analyzing contractual renegotiations solely through the lens of opportunistic motives may be overly simplistic, particularly given that public contracts are often complex transactions with evolving objectives, where it is difficult to foresee future events that might disrupt the relationship. Renegotiations can also be seen as necessary adaptations to address the gaps in

the original contract (Grossman et Hart 1986). Thus, renegotiation serves as both a crucial tool for enhancing surplus and a risky adaptation process that may foster opportunistic behavior (Fehr, Hart, et Zehnder 2011; Frydlinger, Hart, et Vitasek 2019; Williamson 1985). It also aligns with the needs that the contract aims to fulfill for the involved parties. While formal agreements are essential to secure specific investments, such security should not come at the expense of flexibility to adapt to unforeseen circumstances. This trade-off leads to an optimal second-best level of contractual completeness (e.g., (Crocker et Reynolds 1993; Saussier 2000)), which reflects an ideal level of contractual renegotiation. Moreover, as discussed in the previous section, the analysis of public contract renegotiations must consider political factors and the associated levels of contractual rigidity. Recent contributions by Beuve, Moszoro, et Saussier (2019) and Beuve et Saussier (2021) propose a more nuanced, less negative perspective on public contract renegotiations.

2.2. Renegotiations as an adaptation tools for public contracts

Beuve, Moszoro, et Spiller (2023) introduce a model of public procurement in which the likelihood of renegotiations is influenced by both contractual flexibility and the political willingness to deviate from contract terms. In their model, contractual flexibility allows for adjustments without the need for formal renegotiation, while the political acceptance of deviations decreases as political competition increases. They then assess renegotiation rates in procurement contracts, differentiating between those managed by public administrations and those overseen by private corporations. As previously mentioned, contracts managed by public entities tend to be more

rigid, especially when public officials face intense political competition and the threat of opportunistic legal challenges against their actions. From the perspective of public agents, a strict contract reduces the risk of politically motivated disputes. Similarly, for contractors, it minimizes the possibility of government opportunism, which may involve unjust administrative actions or gradual encroachment on property rights ((Moszoro et Spiller 2019; Spiller 2013). Based on this, Beuve, Moszoro, et Spiller (2023) hypothesize that increased political competition, by promoting greater contractual rigidity, would likely result in a higher frequency of formal renegotiations in public contracts. Their findings strongly support this hypothesis: public contracts are renegotiated more frequently than private contracts (by 7–13 percent), with the trend being particularly noticeable in jurisdictions with high political contestability.

In a similar vein, Beuve et Saussier (2021) argue that the design of public contracts is influenced by the challenge of incorporating an appropriate level of flexibility to allow for renegotiations when necessary. While excessive flexibility may lead to opportunistic renegotiations, a lack of it can prevent welfare-enhancing renegotiations from occurring. To empirically test their hypothesis, they examine the impact of contractual renegotiations—by breaking down their frequencies and types—on the likelihood of contract renewals. Since it is nearly impossible to directly measure how renegotiations affect contractual surplus, they use contract renewals as a proxy to indirectly assess the parties' perceptions of their past relationships and, ultimately, their cooperative adaptation and the creation of contractual surplus during renegotiations. If renegotiations lead to a significantly negative outcome, parties are unlikely to renew the contract. Their empirical analysis of public contracts in the car park sector leads to two key conclusions. First, a simplified

approach reveals a negative correlation between the likelihood of renewal and the absence of any prior renegotiation during the contract's duration. This finding introduces nuance to the idea that renegotiations are driven solely by opportunistic behavior. In a second step, they conduct a more detailed analysis of the frequency and nature of renegotiations, concluding that there is an optimal threshold for renegotiation frequency (0.7 renegotiations per year, or roughly one renegotiation every year and a half) within their dataset. These findings support the view that contracts are governance mechanisms that need to be rigid enough to reflect genuine commitment from the parties involved, while also allowing enough flexibility to adapt to a changing environment.

As discussed in the previous subsection, we cannot entirely rule out the possibility of a link between contract renewal and corruption. In such cases, the contract might be renewed if both corrupt parties are satisfied with the arrangement, sharing rents from unjustified quality reductions or price increases through bribery, which would harm third parties such as taxpayers and honest, potentially more efficient suppliers. To distinguish between the opportunistic narrative (involving collusion between private operators and elected officials) and the optimistic perspective (which assumes that contract renewal implies good performance for the taxpayer), the authors examine the number of corruption cases involving the mayor or city council members between 1980 and 2010 to identify a potentially corrupt environment. Despite the limitations of this measure—such as its reliance on detected and prosecuted cases, which may not reflect widespread or endemic corruption—the results suggest that corruption is of limited concern in their context. This is particularly true given that their analysis focuses on contracts between various public authorities and France's largest car park company. Unless this operator dominates the entire sector, it is reasonable to assume that the

negative reputation effects of corruption allegations likely outweigh any potential benefits of engaging in illicit activities. Additionally, the authors control for the type of renegotiations the contract underwent, finding that renegotiations related to quality improvements are associated with a higher likelihood of contract renewal, while renegotiations concerning tariffs and the financial equilibrium of the contract (i.e., those aimed at reducing quality or increasing prices) are statistically negatively correlated with contract renewal.

Altogether, the findings from Beuve, Moszoro, et Spiller (2023) and Beuve et Saussier (2021) suggest that prior empirical studies emphasizing the inefficiencies of public contracts due to high renegotiation rates may have overlooked key aspects of the issue. These inefficiencies may not be easily remedied (Williamson 1999), as the frequent renegotiations observed in public contracts can be attributed to their inherently rigid nature rather than being a sign of corruption, governmental opportunism, or government failure to prevent renegotiations when dealing with opportunistic private corporations. On the contrary, frequent renegotiations may impart a relational quality of adaptability to unforeseen contingencies, particularly in politically contestable environments. However, it is crucial to highlight that the positive and significant relationship between renegotiations and public contract renewals, as identified by Beuve and Saussier (2021), depends on the capacity of public agents to effectively renegotiate contracts and base renewal (or termination) decisions on the events that transpired during the contract's life cycle. Thus, the existence of an optimal level of renegotiations that maximizes contract renewal holds true only if public authorities have discretion in selecting their partners. This argument about the potential benefits of the prudent use of discretionary power by public authorities aligns with the dynamic literature surrounding the debate between rules and discretion in public procurement.

An additional step could involve evaluating the degree of collaboration during renegotiation phases, which is the focus of the subsequent sections.

3. Contract Modification Notices: New Ted data

In this study, we leverage the new European Union directives enacted in 2014 and implemented across Europe since 2016, which enhance transparency in contractual renegotiations (Directives 2014/23/EU, 2014/24/EU, 2014/25/EU). These directives, for the first time, address both the execution of public contracts and the procedures for contract awards. They mandate that public contractors disclose significant contract modifications by posting notices in the Official Journal of the European Union.³

We web-scraped every contract modification notices (CMNs) that were

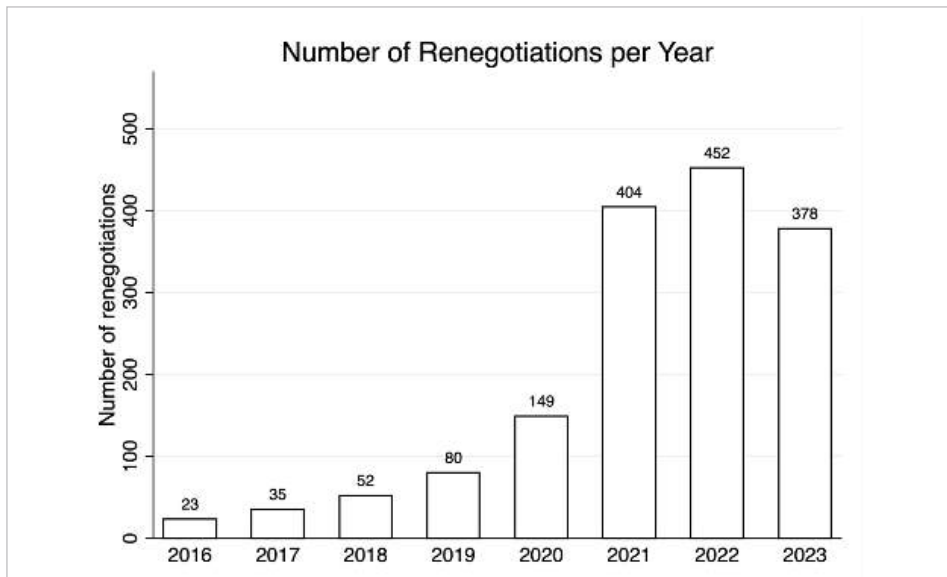
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- 3 Article 72 of the 2014/24/EU and article 43 of the 2014/23/UE directives stipulate that contracts may be modified (or renegotiated) without a new procurement procedure in any of the following cases:
- (a) where the modifications, irrespective of their monetary value, have been provided for in the initial procurement documents in clear, precise and unequivocal review clauses, which may include price revision clauses or options;
 - (b) for additional works, services or supplies by the original contractor that have become necessary and that were not included in the initial procurement, where a change of contractor cannot be made for economic or technical reasons such as requirements of interchangeability or interoperability with existing equipment, services or installations procured under the initial procurement;
 - (c) where all of the following conditions are fulfilled:
 - (i) the need for modification has been brought about by circumstances that a diligent contracting authority could not foresee;
 - (ii) the modification does not alter the overall nature of the contract;
 - (iii) any increase in price is not higher than 50% of the value of the original contract or framework agreement. Where several successive modifications are made, that limitation shall apply to the value of each modification. Such consecutive modifications shall not be aimed at circumventing this directive;
 - (d) where a new contractor replaces the one to which the contracting authority had initially awarded the contract;
 - (e) where the modifications, irrespective of their value, are not substantial.
- Contracting authorities that modify a contract in the cases set out under points (b) and (c) above are required to publish a notice to that effect in the Official Journal of the European Union.

published on the Tenders Electronic Daily (TED) website between January 2016 and December 2023 for Italy. After cleaning the data and focusing on public contracts governed by the 2014 public procurement directives, the dataset includes over 1,500 CMNs.

These contracts represent a total public procurement value of €13.7 billion, with renegotiations accounting for €2.7 billion. The average contract duration is 3 years, with a maximum duration of 52 years.

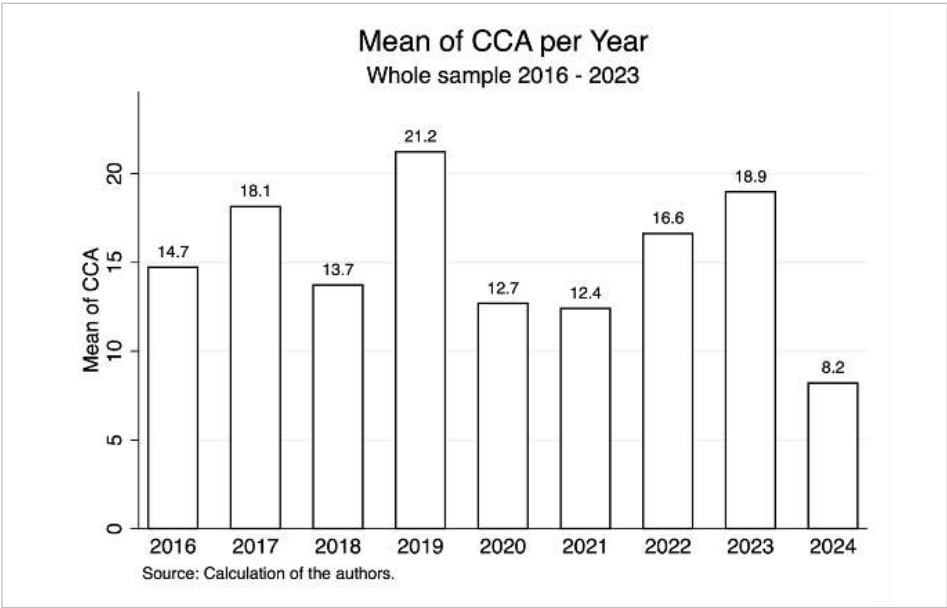
Figure 1 shows a steady increase in the number of Italian contract modification notices over time, likely due to a learning effect stemming from the new obligations introduced by the 2014 Directives. Additionally, a potential impact of the COVID-19 pandemic can be observed. This trend is not unique to Italy and is evident in several other EU countries (see Auriol and Saussier, 2025).

Figure 1 Number of contract modification notices per year in Italy (N=1577)



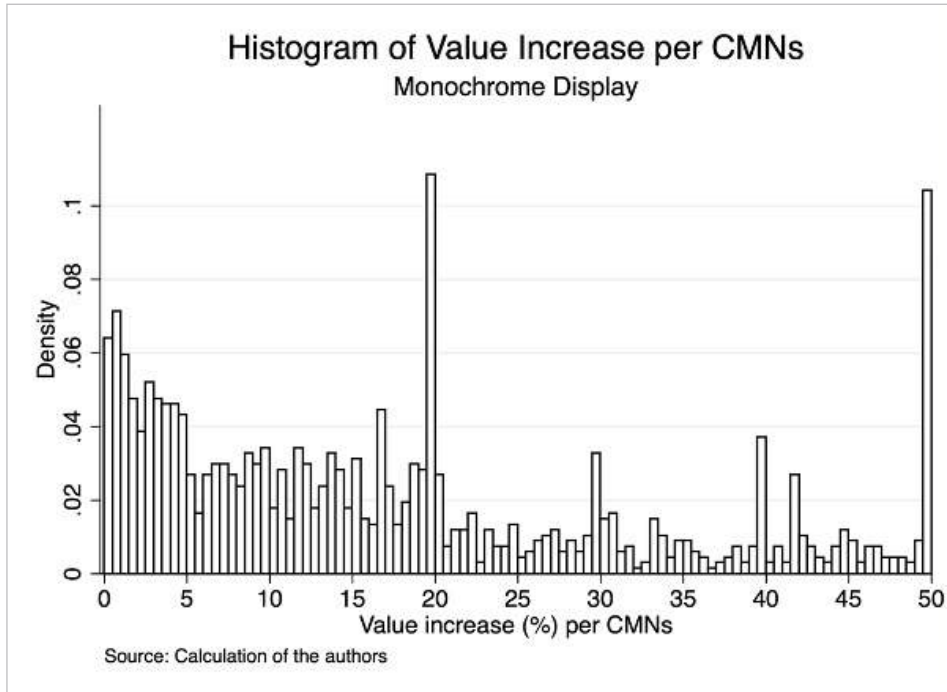
Examining the average impact of renegotiations on contract amounts, no clear trend emerges. However, it is evident that, on average, renegotiations alter contract values by more than 10%, which is significant.

Figure 2. Average change per year of contract amount through renegotiations(N=1577)



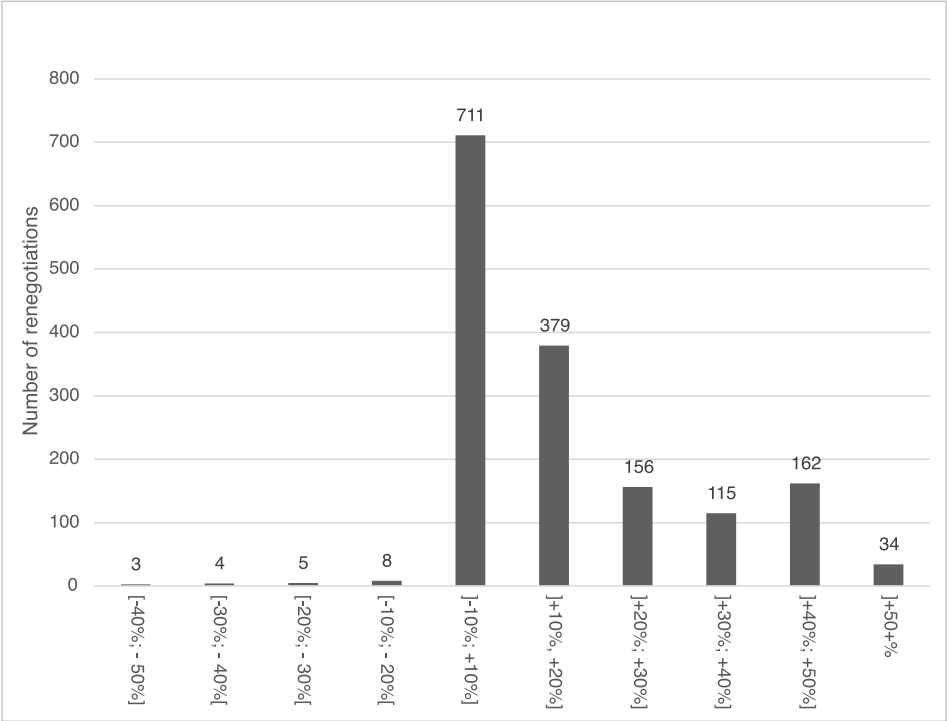
We also observe a threshold effect with many renegotiations changing contract values by less than 50% marginally (See Figure 3). We also note the presence of thresholds, potentially psychological effects, related to renegotiations that alter the contract value by less than 20%, 25%, or 30%.

Figure 3 Distribution of contract change amounts (value increase in %) per contract modification notices (N=1557)



Finally, when examining the impact of renegotiations on contract values, the vast majority result in an increase, with changes typically concentrated within the 0 to 10% range. Only a small fraction of renegotiations lead to a decrease in contract values (Figure 4).

Figure 4 **Distribution of contract change amounts (value change in %) per contract modification notices (N=1577).**



Those results are in line with Decarolis et Palumbo (2015). Looking at Italian contracts for public works above €150,000 between 2000–2007, they found out that price renegotiations larger than 5% involve more than 45% of renegotiated contracts. Our data indicate that, on average, the value of Italian public procurement contracts is adjusted by 15% when they are renegotiated. Price renegotiations larger than 5% involve more than 65% of our contracts. One way to interpret this result is that the public procurement European Directives, by regulating and increasing the transparency of renegotiations, has amplified their scope.

4. Sentiment analysis

The size of renegotiations offers minimal, if any, insight into the contentious nature of the process. After all, many renegotiations may stem from unforeseen circumstances and be effectively managed by contracting parties to serve the public interest. To delve deeper into this issue, we conduct a sentiment analysis of the text provided by public authorities to justify and describe contract modifications. This analysis seeks to evaluate the tone and sentiment conveyed in the justifications, offering insights into the rationale behind the contract changes and highlighting potential concerns or positive outcomes.

Computed Scores

For this analysis, we will use the Economic Lexicon of Barbaglia et al. (2021), that has been developed as part of a project by the European Commission, Joint Research Centre (JRC).⁴ Unlike general sentiment dictionaries, which often fail to capture the nuanced language of economics and public contract modifications, the Economic Lexicon is specifically designed for economic contexts. It is tailored to accurately assess sentiment in texts related to economic policies, contract justifications, and public sector communications. By providing a range of sentiment scores that capture varying degrees of positive, neutral, and negative tones, it offers more granular insights compared to the binary classifications typically used in other dictionaries.

The sentiment score for a text is calculated by summing the individual

⁴ Data are available here: <http://data.europa.eu/89h/1c054ef4-561a-464a-9077-3f6b09630da2>

scores of words in the text that match entries in the lexicon. Positive words contribute positively to the score, while negative words reduce it. The resulting score reflects the overall sentiment of the text, with higher scores indicating a more positive sentiment and lower scores indicating a more negative sentiment.

As an example, the following contract modification justification is scored positively (Obs 776):

“During the execution of the contract, following the acquisition of the nursing service referred to in the previous modification, a further refinement of the management model was evaluated, in agreement with the Contractor, consisting in the recomposition of all the functions relating to the health and socio-health roles, in order to strengthen the coordination line of the Health Management in relation to the achievement of the health objectives of the guests, with positive effects on the functioning of the structure; The opportunity of transferring the medical and physiotherapy service, the RSA entertainment service and the RSD educational service to Sercop was therefore positively evaluated, with the aim of rebuilding an organizational model that favors the integration of healthcare functions and health and social care, in the exclusive interest of the guest.”

The justification is scored positively due to several key elements that highlight constructive actions, collaboration, and beneficial outcomes. The phrase “in agreement with the Contractor” suggests that both parties collaborated harmoniously, which is inherently viewed as positive in sentiment analysis. A “further refinement of the management model” and “recomposition of all the functions” indicate progress and efforts to enhance the situation. “Strengthen the coordination line of the Health Management” reflects a proactive approach to improving organizational efficiency, a sentiment often associated with positivity. Lastly, “Achievement of the health objectives of the

guests” demonstrates a focus on successful outcomes, emphasizing purpose and impact.

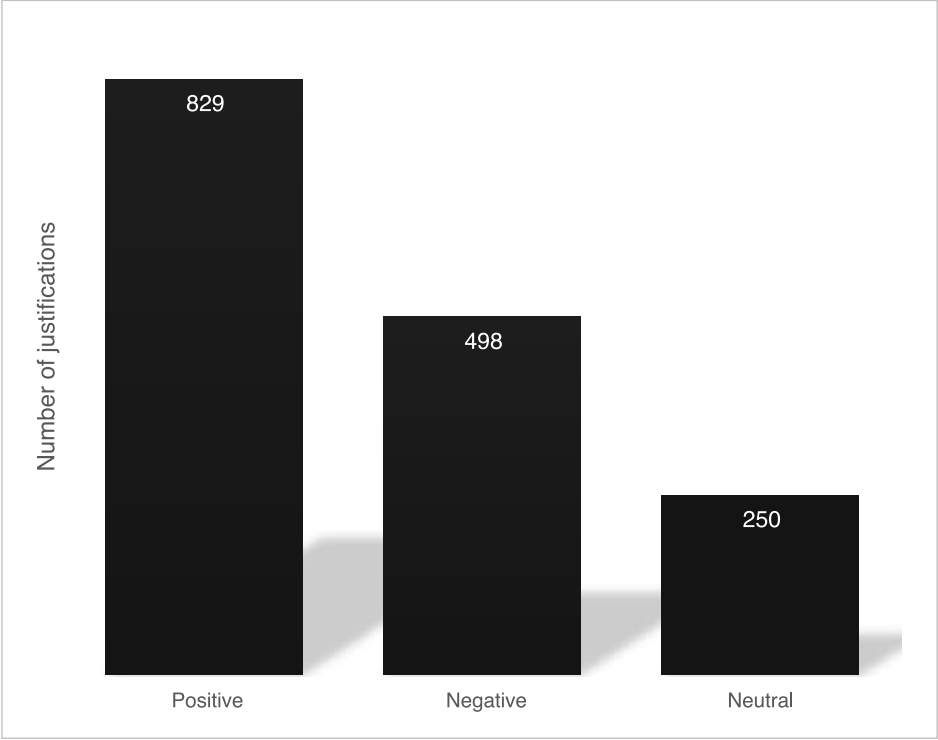
As an example, the following contract modification justification is scored negatively (Obs 205):

“Compared to the factual situation existing at the time of the tender, a worsening of the quality of the material supplied was found, with further critical issues corresponding to the waste emergency that occurred in Rome during 2019, with an increase in the extraneous fraction present and an increase in costs systems related to the management of this material as well as related to its disposal in landfills and/or authorized plants. Following the closure of the Lazio Ambiente regional reference landfill located in the Municipality of Colferro, the cost per tonne was redetermined, also including the transport and disposal activities of the extraneous fraction. This has resulted in extra costs linked to the treatment of the non-compostable material (NCM) rate greater than 5% found in this waste flow to be determined with contradictory product analyses to be carried out on a quarterly basis.”

The “worsening of the quality of the material supplied” is a direct negative event. “Further critical issues corresponding to the waste emergency” exacerbates the negativity by highlighting significant challenges. The repeated mention of “increase in costs” and “extra costs” frames the situation as financially burdensome. The closure of the landfill and the need to redetermine costs adds logistical difficulties, further emphasizing the negative tone. The reference to “treatment of non-compostable material” and its associated complications underscores inefficiencies and environmental challenges.

Overall, the justifications for renegotiation were largely regarded as reflecting a positive sentiment (see Figure 5).

Figure 5 **Sentiment Distribution in Justifications for Renegotiation (N=1577)**



The sentiment surrounding renegotiations appears to be little influenced by the duration of the contract being renegotiated, nor by the extent to which renegotiations impact the contract amounts (See Figures 6 and 7).

Figure 6 Sentiment Distribution by Contract Duration (N=1577)

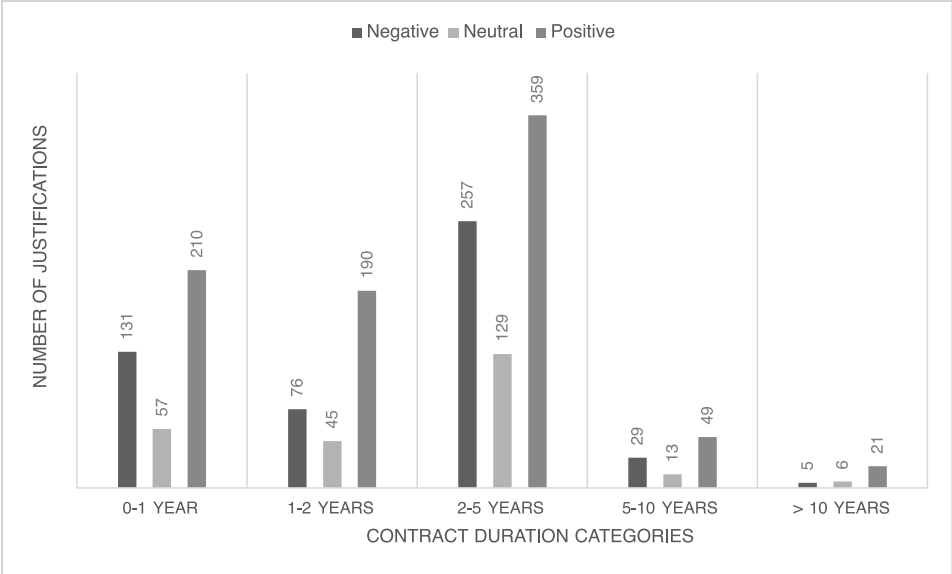
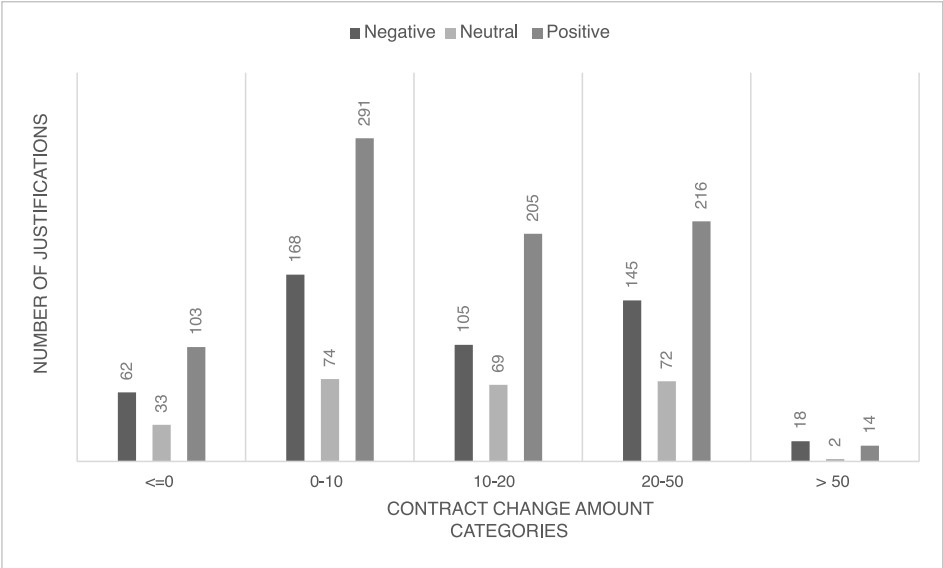


Figure 7 Sentiment Distribution by Contract Change Amounts (N=1577)



5. Discussion and conclusion

This paper represents an initial investigation into how the renegotiation of public contracts shapes the collaboration between contracting parties. Employing original data derived from the compulsory regulations linked to the 2014 public procurement directives, a sentiment analysis examining the justifications for renegotiations suggests that such adjustments enable contracts to adapt to unexpected conditions while preserving cooperation between the parties involved.

To enhance our analysis, it would be pertinent to explore the relationship between sentiments associated with renegotiations and the types of public procurers involved (e.g., infra-national vs. national). Auriol and Saussier (2025) found out that public procurement contracts are more frequently and more deeply renegotiated when local governments are implied. It is essential to recognize that the professionalization of public procurement is crucial for effectively managing contract renegotiations (Coppola et Piga 2019). Public procurers often operate with varying skill levels, especially when comparing infra-national to national procurers. Incompetence-driven inefficiencies, often referred to as passive waste, can be a significant cause of government spending inefficiencies. As highlighted by Decarolis et al. (2020) in their research on the US public procurement market an increase in public procurers competence reduces cost overruns by 29%, the number of days of delay by 23%, and renegotiations by half. This underscores the importance of professionalizing procurement processes to ensure that public procurers—particularly at the infra-national level—are equipped with the necessary skills to manage renegotiations effectively and minimize inefficiencies.

Additionally, conducting this analysis across various types of public

contracts, such as public-private partnerships (including availability-based contracts and concession contracts), would be valuable. While Auriol and Saussier (2025) offer such an analysis for the EU, they do not provide details on a country-by-country basis.

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ECONOMIA ITALIANA 2024/3

Il public procurement in Italia: opportunità e questioni aperte

La spesa pubblica per appalti pubblici rappresenta il 15% del PIL e, oltre alla dimensione economica, ha un impatto significativo su vari aspetti della vita quotidiana. Questo numero, editor il prof. **Gustavo Piga**, dell'Università di Roma Tor Vergata, esplora le sfide che i policy-makers devono affrontare nel bilanciare esigenze ecologiche, sociali e locali e la difficoltà di tradurre la crescente consapevolezza dell'importanza della spesa pubblica in impatti concreti per il tramite di acquisti e appalti.

Le direttive UE del 2014 non hanno raggiunto gli obiettivi di aumentare la trasparenza degli appalti, semplificarne le procedure e favorire le PMI. A questi fini, sottolinea l'editor, il ruolo delle istituzioni democratiche assume una rilevanza strategica per bilanciare obiettivi locali, nazionali e transnazionali. La centralizzazione delle procedure di acquisto se da un lato potrebbe garantire maggiore celerità e un accesso alle grandi imprese europee, dall'altro penalizza le imprese locali. Sono necessari in particolare una maggiore professionalizzazione delle competenze nel settore della spesa pubblica per appalti e specifici investimenti in questo ambito da parte delle istituzioni europee e degli Stati membri.

Il volume raccoglie le evidenze sugli appalti pubblici italiani e fornisce indicazioni utili per una futura direttiva europea che possa migliorare l'efficacia delle procedure. **Stéphane Sausier**, nel saggio *Contract Modifications: Good in Practice, Bad in Theory? Exploring New Data Concerning Italy*, analizza la rinegoziazione degli appalti. **Andrea Bafundi, Riccardo Camboni e Paola Valbonesi**, nell'articolo *Recent Regulatory Reforms in Italian Public Procurement: an Empirical Analysis on their Impact*, esaminano le due recenti riforme degli appalti in Italia e se e come queste abbiano accelerato le procedure. L'articolo *La concorrenza e gli appalti pubblici* di **Andrea Pezzoli e Alessandra Schiavina** riesamina il ruolo in materia dell'Autorità Garante della Concorrenza. Il saggio di **Nicola Dimitri**, *Public Procurement of Innovation: a Focus on Italy*, esamina come gli appalti possano stimolare l'innovazione.

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