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No Poaching Clauses in Italian Franchise Agreements: Initial Findings

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No-Poaching Clauses in Italian Franchise Agreements: Initial findings

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Abstract

In 2017, following a paper by Ashenfelter and Krueger, No-Poaching Clauses (NPCs) in the Quick Service Restaurant Industry rose to the centre of the US Antitrust debate. Several papers have since estimated a significant negative impact of NPCs on wages. The US NPC debate has yet to reach the EU, mainly due to a lack of evidence of their presence. A "civic access" to documents used in a legal proceeding allowed the uncovering of seven Italian Franchising agreements, six of which clearly enforce NPCs. This article discusses the main features of the Agreements, analyses the differences between the EU and US competition law and labour markets, and argues that NPC removal would raise wages in the EU more than it did in the US

Keywords: No–Poaching Clauses, Anticompetitive Impact, Franchising, Chain Restaurants, EU and US labour markets

1 Introduction

A non-hiring agreement among companies, commonly known as a "No-Poaching Agreement", is a pact where two or more businesses commit not to recruit or hire each other's employees. Within the contractual framework of Franchising, no-poaching agreements are embedded in the contract signed by the Franchisee as clauses (henceforth referred to as NPCs), stipulating a prohibition for the latter to employ workers from the Franchisor or other Franchisees without their explicit consent.

Until recently, Antitrust interventions concerning No-Poaching Agreements were confined to high-profile cases involving highly specialized workers. Paramount was the action taken by the Antitrust Division of the US Department of Justice in 2010 against Adobe, Apple, Google, Intuit, and Pixar (CPI 2017), which had secretly agreed not to directly solicit each other's employees for recruitment purposes. It was not until 2017, with the early dissemination of a draft of "Theory and Evidence on Employer Collusion in the Franchise Sector" (Krueger and Ashenfelter 2022) and the publication of the article "Why Aren't Paychecks Growing? A Burger-Joint Clause Offers a Clue" (Abrams 2017) in the New York Times, that the issue of NPCs in unspecialised industries garnered public attention.

"Theory and Evidence on Employer Collusion in the Franchise Sector" showed that in 2017 58% of American Franchisors included NPCs in their franchising agreements. The article posited that NPCs effectively reduced the number of employers in the market to the number of Franchisors, significantly increasing local labour market concentration and leading to a "real" Hirschman-Herfindahl Index (HHI) for the Quick Service Industry (QSR) in Rhode Island of 1,678.0 (against a nominal value of 38.3). Such an increase in concentration would move the market classification from competitive (0-1500) to moderately concentrated (1500-2500).

The article further listed three channels through which NPCs harm workers:

- By increasing market concentration and, therefore, market power, NPCs contribute to suppressing wages.
- By reducing job opportunities, NPCs decrease labour market elasticity, increase firms' market power, and lower wages.
- By introducing intra-chain constraints, NPCs facilitate inter-chain collusion.

Levy and Tardiff (2018) and Levy, Tardiff, et al. (2020) argue that NPCs do not shrink the number of potential employers to the number of Franchisors but to the number of Franchisees from all other chains. They compute "corrected" HHI indices, finding that the discontinuation of NPCs in the United States did not significantly impact labour market concentration. Using data from Florida and Rhode Island, they further show that the changes in concentration due to NPC removal did not affect wage dynamics.

Rather than calculating the effects of concentration changes on wages, Callaci et al. (2023) used data on online job postings in the United States (from Burning Glass Technology) and self-reported salary data (from GlassDoor) to estimate the direct impact of the anti-NPC campaign on wages, which they find to be 3.6%. However, as highlighted by Lafontaine, Saattvic, and Slade (2023), the regression they conducted presented two biases, the first due to the introduction of an algorithm to estimate salaries and the second due to a possible correlation between the effect of NPCs on wages, required skills, and salary publication in job listings. Lafontaine, Saattvic, and Slade (2023) correct for both biases and find a total negative effect of NPCs on wages of 5.5%.

To date, evidence has primarily concerned the United States. However, some of the literature indicates that Franchisors mainly use standard contracts (Blair and Lafontaine, 2005). Thus, I show some evidence from a European market, specifically Italy. In the following section, I provide a legal analysis of how such agreements are regulated in the United States and Europe, present the results of my investigation, review the models presented in the literature, and finally analyse the consequences of my findings in Italy and Europe.

2 Antitrust Analysis and Regulatory Developments

2.1 Horizontal and Vertical Agreements in the United States

Section 1 of the Sherman Act prohibits "[e]very contract, combination . . . or conspiracy" in restraint of interstate trade or commerce. In enforcing the Act, three forms of analyses have been developed:

1. The "Rule of Reason" is applied when the anticompetitive effects of the provision are not evidently greater than the procompetitive effects. In this case, the plaintiff must demonstrate the anticompetitive effects of the disputed provision, directly or indirectly. If the plaintiff presents a convincing argument, the defendant is called upon "to show that the challenged conduct promotes a sufficiently procompetitive objective" *United States v. Brown University* (1993). The plaintiff then has the right to attempt to refute the defendant's response.

2. The "Per se" rule is applied when the anticompetitive effect of the provision under examination is evidently greater than the procompetitive effects. In this case, the only burden of proof on the plaintiff is to show that the conduct in question occurred, given that these agreements "have such predictable and pernicious anticompetitive effect, and such limited potential for procompetitive benefit, [...] that they are deemed unlawful per se" *State Oil Co. v. Khan* (1997).

3. The "Quick look" rule is applied when the situation is neither so complex as to require the Rule of Reason nor so simple as to require no further analysis. It is usually used when the conduct in question could potentially justify a per se treatment, but the lack of judicial precedents requires at least some level of consideration.

Horizontal agreements, i.e., agreements between actual or potential competitors operating at the same level of production or distribution in the market, are considered illegal under the Sherman Act according to the per se rule, as any practice of price or wage fixing among competitors is considered inherently harmful to competition. This principle does not apply to vertical agreements, i.e., agreements between firms operating at different distribution levels, as vertical agreements can have procompetitive effects and must, therefore, be analysed according to the rule of reason.

Consequently, the horizontal/vertical nature of NPCs becomes crucial. Plaintiffs argue that since the clause limits worker movement, restricting staff poaching practices among Franchisors (who compete at the same production level), the agreement is horizontal and, thus, should be subject to the per se rule. Defendants argue, however, that the clause stems from obligations between Franchisee and Franchisor, implying it is vertical in nature and, consequently, subject to the rule of reason.

To date, no clear guidelines have been issued regarding NPCs' horizontal/vertical nature. In March 2019, the Department of Justice (DOJ) filed a statement of interest in the case Stigar v. Dough Dough Inc., stating that most agreements between Franchisee and Franchisor are not horizontal and should, therefore, be subject to the rule of reason. However, since the statement is not binding, individual courts retain jurisdiction in the matter. To date, no Franchisor has won a case by solely demonstrating the vertical nature of the clauses, and none of the legal proceedings mentioned in the next section involved a per se analysis.

This makes the Franchising case of particular interest. Individual Franchisees are in competition, and any agreement between them would be horizontal in nature and should, therefore, be analysed through the per se rule. Nevertheless, the No-Poaching Clause is not in a written or oral agreement between Franchisees, but in the franchising contract with the Franchisor, and is therefore vertical. In economic effects, however, the legal distinction carries no weight. The clause is perfectly equivalent to a horizontal no-poaching agreement between all establishments of the same chain, with both pro and anticompetitive effects.

2.2 Legal Evolution of NPCs in the United States

In October 2016, the Department of Justice (DOJ), jointly with the Federal Trade Commission (FTC), published the Antitrust Guidelines for Human Resources, stating: "An agreement among competing employers to limit or fix the terms of employment for potential hires may violate the antitrust laws if the agreement constrains individual firm decision-making with regard to wages, salaries, or benefits; terms of employment; or even job opportunities" (Justice Antitrust Division and Commission 2016).

Already in February 2017, two former employees of a Carl's Jr. Franchisee initiated a state-level class action lawsuit against the Franchisor, alleging that the franchising contract violates California state law as unfair competition and an illegal non-compete agreement, adding that they suffered harm in the form of "reduced wages and worsened working conditions" (Superior Court of California 2017). Among other actions subsequently opened, particularly relevant is the one initiated in June 2017 by a former employee of a McDonald's Franchisee, who opened a state-level class action lawsuit against McDonald's with the same charge, claiming it to be in violation of the Sherman Act, (Northern District of Illinois 2018).

The workers' claims in lawsuits against Franchisors were followed in September 2017 by the publication of a draft of Krueger and Ashenfelter (2022) and of Abrams (2017). The study develops and presents economic models supporting the thesis that NPCs reduce employees' wages, validating the plaintiffs' claims. In November of the same year and in January of the following year, two more state-level class action lawsuits were initiated against Pizza Hut and Jimmy John, respectively, both claiming that the franchising contract violated the Sherman Act and that the plaintiffs suffered harm in the form of "reduced wages and worsened working conditions." The strong attention brought to the theme by Abrams (2017) and the lawsuits filed against various Franchisors in the following months caught the attention of Washington Attorney General Ferguson, who began to take an interest in the topic.

The State of Washington announced in July 2018 that it had entered into Assurances of Discontinuance (voluntary agreements in which companies commit to ceasing potentially wrongful behaviours, AOD) with seven Franchisors in the fast-food industry to invalidate NPCs (Attorney General 2018). The scope has since expanded to twelve other industries. The states of California, Illinois, Iowa, Maryland, Minnesota, New Jersey, New York, North Carolina, Oregon, and Pennsylvania did the same, opening investigations into NPCs.

When Attorney General Ferguson concluded his investigation in 2020, more than 200 Franchisors had already agreed to remove NPCs from their contracts, totalling 197,000 stores across the United States (Parts 2022).

2.3 Legislative Proposals

In 2019, Senators Elizabeth Warren and Corey Booker co-sponsored the End Employer Collusion Act, which "makes it unlawful for any entity to enter into a restrictive employment agreement, or to enforce or threaten to enforce a restrictive employment agreement.

A 'restrictive employment agreement' is any agreement between two or more employers that prohibits or restricts one employer from soliciting or hiring another employer's employees or former employees." The bill directly contradicted the DOJ's position in its Statement of Interest and saw no further developments once referred to the Senate committee.

In July 2021, President Biden issued an Executive Order to "Promote Competition in the American Economy," indicating that the Federal Government would use antitrust legislation to investigate actions that limit wages.

On May 30, 2023, the National Labor Relations Board published a memorandum stating: "All non-compete agreements are unlawful because they chill employees from exercising their rights under Section 7 of the National Labor Relations Act, which protects employees' rights to take collective action to improve their working conditions." The memo, while not legally binding, shows the Biden administration's interest in antitrust policy and could signal further developments for NPCs as well as for Non-Competes.

2.4 Horizontal and Vertical Agreements in the European Union

Article 101 of the Treaty on the Functioning of the European Union (TFEU) states: " The following shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market are incompatible with the internal market and prohibited." Just like in the US case, European jurisprudence distinguishes two types of violations:

1. Object violation: similar to the Per se Rule in the United States, a violation is by object when the anticompetitive effect of a provision is so apparent that it does not require further analysis, being considered in violation of Article 101 of the TFEU. Price fixing, import-export limitation, and any agreement that divides the internal market are generally considered object violations. The foundational case regarding object violations is "Consten and Grundig" (*Case 58-64* 1964), which states that any provision with the explicit intention of harming competition is illegal under Article 101 of the TFEU.

2. Effect violation: similar to the rule of reason in the United States. It favours companies insofar as it allows one to argue the overall effect of practices, which must be demonstrated through market tests. Given the relative ease with which

the Commission can issue judgments by object, it is rarely used.

2.5 NPCs in Europe: Isolated Insights

As in the United States, the European Union lacks a unified response to the problem posed by NPCs, and despite some recent progress, Member States have intervened and continue to intervene autonomously.

In October 2017, the French Autorité de la Concurrence determined that agreements to coordinate commercial policies, including price fixing and, in particular, a no-poaching agreement, were in violation of Article 101 (TFEU) and illegal by object (*Décision n° 17-D-20* 2017).

In December 2020, the Hungarian Competition Authority found the Hungarian Association of Consulting Agencies guilty of fixing rates and other conditions in the temporary employment market. It also declared: "The prohibition on members from inducing employees of other members to change employers ('no-poaching clause'), which aimed to share the sector among members and prevent the free movement of employees in the market, is to be considered illegal" *Case VJ/61/2017* (2020).

Extremely interesting was the intervention of the European Commissioner for Competition Margrethe Vestager in October 2021: "... some buyer cartels do have a very direct effect on individuals, as well as on competition, when companies collude to fix the wages they pay; or when they use so-called "no-poach" agreements as an indirect way to keep wages down, restricting talent from moving where it serves the economy best."

This and other statements, like that of the outgoing president of the French Autorité de la Concurrence, Isabelle De Silva, in October 2021, seem to indicate a pivot in the attention of European and national regulators towards the labour market, which could lead to imminent developments for No-Poaching Clauses, lacking any intervention on their presence in franchise contracts.

3 NPCs in Europe: Evidence from Italy

One of the main obstacles to addressing No-Poaching Clauses (NPCs) in Europe is the need for more evidence of their existence. Unlike in the United States, where many states require the registration or filing of the franchising agreement and the compilation of extensive Franchise Disclosure Documents (FDD), in Europe, there are no publicly available documents detailing the franchising contract; this has prevented the debate on

NPCs from reaching the European Union and allowed Franchisors to avoid matching European contracts to those of the United States.

3.1 Generalized Civic Access

In 2021, one of the largest global franchising chains in the fast-food sector (hereafter referred to as X) was hit by a lawsuit initiated by six Franchisees, who accused it of abusing its dominant position, especially regarding price policies and Franchisee autonomy. The action was concluded in July 2022, when the remedies adopted by X to restore reasonable market conditions were found to be satisfactory.

Once a proceeding is closed, all documents used can be consulted by citizens through a procedure called "generalized civic access" implemented to increase transparency. I sent the first access request on March 8, 2023, asking whether X's Franchising Contract contained an NPC. The request was denied by mail on April 9, 2023, as it lacked specific reference to the requested document. A second request was sent on April 11, asking for X's entire Franchising Contract. On April 18, I was informed that my request was considered reasonable and that X would have ten days to appeal.

X then filed an appeal aimed at censoring most of the requested documents. However, the motion was deemed unreasonable, and a middle ground between the request for total access and the motion for censorship was found. Given the alternative (an appeal to an internal jury), X accepted this compromise on May 19, and I received the requested documents.

3.2 The Contracts

The documents I received consist of 7 Franchising Contracts ("the Contracts"), named 1.2, 1.3, 2.2, 2.3, 2.4, 3.3, and 3.4. All numerical entries in the contracts were censored to protect data on profitability and margins, which X considers sensitive information. Fortunately, the censorship was not uniform, making some non-commercially relevant information accessible in some contracts but not others.

The most interesting result is found in paragraph 12 ("Personnel and employment relations") subparagraph 0.3/0.4 (depending on the contract), suggestively named "Prohibition of hiring X employees." This subparagraph reports the prohibition of hiring employees of X, of any Franchisee of X, or of any company controlled or connected to X, unless the employee had already left employment for six months or more and the Franchisee had not induced them to do so, directly or indirectly. In case of violation, a penalty payable to X of 2,600 euros per day of violation and for each affected employee is established, notwithstanding X's right to act for further compensation.

Therefore, The NPC is in the contract and is more severe than its US counterpart, as it establishes a penalty in case of a violation that seems completely detached from any estimate of the hypothetical damage caused. Although the penalty is absent in the most recent version of the contract, it is important to note that even if not legally valid, the mere threat might be enough to make it effectively binding (for a discussion of this phenomenon for Non-Competes in the Italian labour market, see Boeri et al. (2022)).

Unfortunately, the contracts lack any information regarding the Franchisees involved. However, I identify four elements of potential interest:

- The existence of NPCs
- The existence of a penalty and its amount
- The currency denomination of the contract (Euro/Lira)
- The signing date

The Euro replaced the Italian Lira in 1999 but became cash currency only in 2002, at a conversion rate of 1,936.27 Lira per euro. Contracts denominated in Lira/Euro (both currencies are used to specify the penalty) were likely signed during this period.

Contract	**NPC**	**Penalty**	**Currency**	**Chronological Note**
1.2	No NPC	N.D.	Lira Only	N.D.
1.3	NPC	Penalty (not visible)	Lira Only	Signed in 1998
2.2	NPC	Penalty (5,000,000 L)	Euro/Lira	N.D.
2.3	NPC	Penalty (5,000,000 L)	Euro/Lira	N.D.
2.4	NPC	No Penalty	Euro	Expiring in 2036
3.2	NPC	Penalty (not visible)	Euro/Lira	Signed in 1999
3.3	NPC	Penalty (2,600 €)	Euro	Signed in 2004

Table 1: Characteristics of the Contracts

Since all contracts specify a maximum expiration date of 20 years from the signing, I assume that contract 2.4 was stipulated at least in 2016.

3.3 Differences with the United States

If the contracts were the same in all markets, it would be reasonable to assume that following the Assurance of Discontinuance (AOD) in the United States, NPCs would also be removed from European contracts. In this subsection, I compared, thanks to the Franchise Disclosure Documents (FDD) available on `https://fddexchange.com/` and the annexe to the AGCM's decision no. 30059 published on `https://www.agcm.it/dotcmsdoc/bollettini/2022/10-22_all.pdf`, the US contracts of a major international Franchisor like McDonald's to the Italian ones, finding considerable differences that show how major Franchisors adapt contracts to local legislation.

Non-Compete clause: Paragraph 11, subsection b, of the US FDD states that the "Franchisor must not, for a period of eighteen (18) months after the termination of this Franchise for any reason or the sale of the Restaurant, directly or indirectly engage in, acquire a financial or beneficial interest (including interests in corporations, partnerships, trusts, unincorporated associations, or joint ventures) in, or become the landlord of any restaurant business which is similar to the Restaurant within a ten-mile (16 km) radius of the Restaurant."
In the Italian version, the provision is almost identical, with two significant differences: the term of the non-compete is 12 months instead of 18, and it involves the entire restaurant sector rather than just QSRs. Following the AGCM's investigation in 2021, the non-compete was removed for the entire post-employment period, and the reference sector was limited to fast food.

Maximum Efforts: Paragraph 13 of the US FDD reads: The "Franchisee shall diligently and fully exploit the rights granted in this Franchise by personally devoting full time and best efforts [. . .] Franchisee shall keep free from conflicting enterprises or any other activities which would be detrimental to or interfere with the usiness of the Restaurant."
The Italian Contract specifies instead in paragraph 6.2.1: "The Franchisee acknowledges that MCD has concluded the contract on the assumption and condition that: [...] (e). the Manager commits with the utmost diligence in the management of the MCD Restaurant, it being understood that such management represents for him a full-time activity." The paragraph originally also contained a clause that considered the contract terminated if the Franchisee moved their residence beyond 50 km from the restaurant. This paragraph was subsequently modified twice, the first in 2018 to remove the obligation of residence within 50 km from the restaurant and the second in 2021 to change the obligation from full-time to "main activity."

Advertising: The US FDD states that the "Franchisee shall expend during each calendar year for advertising and promotion of the Restaurant to the general public an amount which is not less than four percent (4%) of the Gross Sales [...] for that year."
The Italian Contract establishes a minimum local advertising contribution margin of 1.5%

monthly, which AGCM deemed excessive and which was lowered to 1% following the 2021 investigation.

4 The Economic Consequences of No-Poaching Clauses

Over the years, several economic models have been presented to emphasize the procompetitive and anticompetitive aspects of No-Poaching Clauses (NPCs). Here, I summarize the main ones in chronological order:

4.1 Monopsonistic Model

Krueger and Ashenfelter (2022) consider NPCs anticompetitive insofar as they increase labour market concentration, reduce the elasticity of labour supply, and, by increasing the employer's markup, reduce wages.

Assuming that workers within the same chain are homogeneous, each chain will have only one wage, which will be a function of the labour supply for that sector in that market. Based on these premises, the authors adapt standard models of oligopolistic competition in the goods market (Dansby and Willig 1979) to models of oligopsonistic competition in the labour market. Using the sum of the squares of each company's monopsonistic power, Dansby and Willig (1979) show that:

$$M = \frac{1}{\epsilon_{Lw}} \left(\sum s_i^2 (1 + a_i)^2 \right)^{\frac{1}{2}}$$

Is an aggregate measure of monopsonistic power in a market and the potential positive impact of regulatory intervention on welfare. The ideal value of M is 0, in which case either there is no monopsony power or labour supply elasticity is infinite, leaving no room for profitable regulatory intervention. Assuming the market is in competition a la Cournot, where $a_i = 0$ for every firm $j \neq i$, the previous equation simplifies to $M = \frac{\sqrt{HHI}}{\epsilon_{Lw}}$, where $HHI = \sum s_i^2$ is the Hirschman-Herfindahl competition index. It thus becomes clear that, by reducing the number of employers from the number of Franchisees to that of Franchisors, NPCs increase labour market concentration and have the potential to create a significant wedge between the marginal value of labour and wages.

Krueger and Ashenfelter (2022) also offer an alternative monopsonistic model, dynamic rather than static, aimed at showing the negative effects of NPCs on wages through the impact they would have on intra-chain labour market dynamics. In this model, the introduction of an NPC, by reducing the number of offers received by employees, reduces labour supply elasticity, increases the employer's market power, and allows Franchisees to pay workers wages lower than their contribution to production.

As the authors note, the mechanism can also work in reverse; if Franchisees were to set a wage that is too low, they would observe a higher turnover than desired and could thus introduce an NPC to force it to more suitable (lower) levels.

Collusion Although not in a model, Krueger and Ashenfelter (2022) also note that higher concentration would increase the likelihood of collusion across chains. Textbook examples of factors enhancing collusion are:

- Similar production costs: franchise workers are similar in wage and characteristics (and therefore substitutable). Furthermore, a low minimum wage "may act as a focal point for tacit collusion in the low-wage markets, pulling down wages of some otherwise higher paid workers." (Shelkova 2014)
- Low monitoring costs: Collusion at the Franchisor stage could be easily monitored, as any deviation would involve thousands of employees, causing, among others, tangible and immediate effects on other firms in the labour market.
- Enforceability of the collusion scheme: the threat of raising wages to counteract an increase by rival chains is real, as fully within the power of the Franchisor, and particularly threatening, given the market share chains hold as opposed to single restaurants.

4.2 Protection of Investment in Human Capital

The main positive effect of NPCs is the protection of investment in human capital. This effect has been discussed by all articles in the relevant literature, including Krueger and Ashenfelter (2022) and Levy and Tardiff (2018). However, Lafontaine, Saattvic, and Slade (2023) perfectly illustrate the issue with a simple model I report here. The model assumes that each Franchisee has *no monopsony power* and a rate of q employees leaving each year. Each employee starts with a value $\underline{v}$. The employer pays a steady-state w^* wage and a cost $c_c + c_r$ to provide training valuable at the chain (c_c) and establishment (c_r) level. After the training, a worker has for the employer a value $\bar{v} > \underline{v} + c_c + c_r$. Under NPCs and no market power, hiring will continue until the long-term benefit of hiring a worker equals the long-term value a worker has to the employer. That is:

$$w^*(1 + (1-q) + (1-q)^2 + \cdots) = \bar{v}(1 + (1-q) + (1-q)^2 + \cdots) - c_c - c_r$$

$$\text{Given that: } \sum_{i=0}^{\infty}(1-q)^i = \frac{1}{q}$$

$$w^* \times \frac{1}{q} = \bar{v} \times \frac{1}{q} - c_c - c_r$$

Therefore, the steady-state equilibrium is $w^* = \bar{v} - (c_c + c_r) \times q$, and the cost of training is amortised over the entire worker's expected tenure.

Without NPCs, the long-run value of a worker to another Franchisee of the same chain is $\frac{\bar{v}}{q} - c_r > \frac{\bar{v}}{q} - c_r - c_c$. Since she will not have to pay for the "chain level" training, the competing Franchisee can offer a higher wage and poach trained workers, reducing the expected return to investment in human capital. Lafontaine, Saattvic, and Slade (2023) argue that a possible solution is to have employees pay (compatibly with financial constraints) for part of their training, reducing incentives to poach and increasing investment in human capital.

4.3 Labour Market Frictions Model

In formalising the anticompetitive effects of No-Poaching Clauses, Lafontaine, Saattvic, and Slade (2023) rely on labour market frictions rather than on market power. This choice is made on the assumption that in labour markets as deep as the one for QSRs in the US, monopsony or oligopsony models will be only marginally relevant. Therefore, the channel through which NPCs suppress wages should be looked for in the increase in uncertainty and market friction they create.

The model developed by the authors reprises McCall (1970) and goes as follows: assume that in a market, N symmetric chains are operating with n symmetric Franchisees. Assume further that workers are endowed with wages w and that each period they pick whether to stay with their current employer or search for a new job. If they choose the latter, they receive offers from all competing firms, with each wage offer drawn independently from a normal distribution $F(w)$ on a compact domain $[0, B]$, and pick the highest. Let us also define β as the discount rate, $v(w)$ as the value of the wage, and E_n as the expected value of the maximum of n independent draws.

Without NPCs, the worker receives $Nn - 1$ offers, of which $G(w)$ is the highest. Since each offer is independent:

$$G(w) = [F(w)]^{Nn-1}$$

$$v(w) = \max\left\{w + \beta v(w), \int_0^B (w' + \beta v(w'))dG(w')\right\} \tag{1}$$

Where (1) is the Bellman Equation for the worker. The first term is the value of staying put, while the second is the value of searching for a job. If the worker keeps working for their current Franchisee forever, the value of staying put becomes:

$w + \sum_{i=1}^{\infty} \beta^i w = \sum_{i=0}^{\infty} \beta^i w = w \times \frac{1}{1-\beta}$.

The worker will, therefore, want to stay if:

$$w \times \frac{1}{1-\beta} > \int_0^B (w' + \beta v(w'))dG(w')$$

Which implies the existence of a threshold wage $\bar{w}$ such that:

$$\bar{w} \times \frac{1}{1-\beta} = \int_0^B (w' + \beta v(w'))dG(w') = E_{Nn-1}(w) + \beta \int_0^B v(w')dG(w')$$

$$\text{Knowing that: } v(w) = \begin{cases} \dfrac{w}{1-\beta} & \text{if } w \geq \bar{w} \\ \dfrac{\bar{w}}{1-\beta} & \text{if } w < \bar{w} \end{cases}$$

We find:

$$\bar{w} = E_{Nn-1}(w) + \frac{\beta}{1-\beta} \int_{\bar{w}}^B (w' - \bar{w})dG(w')$$

Introducing NPCs, the number of potential offers shrinks from $Nn - 1$ to $n(N - 1)$. It follows that:

$$\tilde{G}(w) = [F(W)]^{n(N-1)} < G(w) = [F(W)]^{nN-1}$$

The new equilibrium wage $\bar{\bar{w}}$ is going to be:

$$\bar{\bar{w}} = E_{n(N-1)}(w) + \frac{\beta}{1-\beta} \int_{\bar{w}}^B (w' - \bar{w})d\tilde{G}(w')$$

And the difference between the two is:

$$\bar{w} - \bar{\bar{w}} = E_{Nn-1}(w) - E_{n(N-1)}(w) + \frac{\beta}{1-\beta} \left[\int_{\bar{w}}^B (w' - \bar{w})dG(w') - \int_{\bar{w}}^B (w' - \bar{w})d\tilde{G}(w') \right]$$

Since $E_{Nn-1}(w)$ FOSD $E_{n(N-1)}$:

$$E_{Nn-1}(w) - E_{n(N-1)}(w) > 0 \tag{2}$$

Integrating by parts the second half of the second term of the equation, we get:

$$\left[\int_{\bar{w}}^B (w' - \bar{w})dG(w') - \int_{\bar{w}}^B (w' - \bar{w})d\tilde{G}(w') \right] = \int_{\bar{w}}^B [G(w') - \tilde{G}(w')]dw' > 0 \tag{3}$$

Given (2) and (3), we can conclude that

$$\bar{w} - \bar{\bar{w}} = E_{Nn-1}(w) - E_{n(N-1)}(w) + \frac{\beta}{1-\beta} \left[\int_{\bar{w}}^B (w' - \bar{w})dG(w') - \int_{\bar{w}}^B (w' - \bar{w})d\tilde{G}(w') \right] > 0$$

Thus, the No Poaching Agreement has reduced Wages.

4.4 Empirical Results

Since the effects of NPCs on welfare are not univocal at the theoretical level, both Callaci et al. (2023) and Lafontaine, Saattvic, and Slade (2023) try to empirically compute the effects of the US anti-NPC campaign on wages. Callaci et al. (2023) use the Burning Glass Technology (BGT) database for online job postings and the GlassDoor (GD) database for salary reports, discovering that entering into an Assurance of Discontinuation (AOD) increases wages per chain by 3.6% in the BGT dataset and by 1.3% in the GD dataset. The result is not surprising, given that the BGT dataset focuses on the flow of jobs and is thus faster in reacting to shocks, while the GD dataset, based on self-reported salaries rather than job postings, measures the stock.

Lafontaine, Saattvic, and Slade (2023) use only the BGT dataset and correct for selection bias in their predecessors' estimates due to the correlation between the effect of NPCs on wages and salary publication by introducing a dichotomous variable equal to 0 before and to 1 after February 2018 and a moving average of the number of online ads normalized to 100 in 2014. To correct for wage estimation bias, each analysis is conducted with and without estimated wages, identified through a text analysis of the words in ads most associated with missing salaries. The final estimates for the wage increase following the anti-NPC campaign were a "raw" 11% and a final coefficient, once both biases are removed, of *5.5%*.

5 Differences between the EU and US QSR markets

The following data for the product market is from Dam et al. (2021).
In 2017, of the 22 European Single Market (ESM) nations, McDonald's was the first company by market share in 18 and the second in 3. QSR Product market HHIs, with changes from 2008-2017 in brackets, are shown in the following Table:

Country	Austria	Belgium	Bulgaria	Czech Republic	Denmark	Finland	France	Germany	Greece	Hungary	Ireland
HHI	1860	885	1004	1460	783	595	1192	1073	574	1310	498
Percentage change since 2008	(13)	(-12)	(-13)	(-32)	(-25)	(-25)	(-16)	(-13)	(-62)	(-54)	(-24)

Country	Italy	Netherlands	Norway	Poland	Portugal	Romania	Slovakia	Spain	Sweden	Switzerland	UK
HHI	951	988	628	1489	1764	1229	1711	648	739	1616	363
Percentage change since 2008	(-21)	(15)	(-10)	(8)	(-4)	(-21)	(-12)	(36)	(-28)	(-7)	(-28)

Table 2: from Dam et al. (2021)

As a frame of reference, the US QSR Product market HHI for the top 50 firms was 11.1[1] in 2017.

Moving to the labour market, thanks to a methodological note published by the European Commission (Eurostat 2021), I was able to access the labour market HHI by

[1]`https://data.census.gov/table?q=Concentration+Ratio&n=N0600.00&tid=ECNSIZE2017.EC1700SIZECONCEN`, NAICS code 722513

profession for the EU[2], computed from Online Job Advertisements (OJA). The HHI index for the "Fast Food Preparer" job is 4442, in line with the total EU job market HHI of 4574. As specified in the Tables posted with the data, this result is roughly equivalent to the 5000 HHI case, representing a market where two firms post 50% of the ads each or equivalently, one dominant firm posts 70% of online advertisements, and nine smaller competitors share the rest of the market.

While it is undoubtedly true that the difference in methodologies and market sizes makes a simple comparison of these numbers impossible, the different orders of magnitude are certainly interesting. I believe that it would not be unreasonable to state that the QSR labour (4,574 vs 38.3) and product markets (1,062 vs 11.1) are more concentrated in the E.U. than in the US.

5.1 Consequences under current models

The higher concentration within the EU QSR market affects the search model in Lafontaine, Saattvic, and Slade (2023) and the market power model in Krueger and Ashenfelter (2022).
In both, albeit for different reasons, the pivotal effect of NPCs is reducing the total number of possible employers from Nn-1 to n(N-1), where N is the number of Franchise chains and n is the number of franchisees per chain. The higher market concentration in the EU can be modelled by assuming a lower N than in the US, keeping Nn fixed. To make a simple example, suppose that the US and EU markets are of the same size, with the EU market more concentrated than the US one. In particular, the EU market comprises three chains with ten franchisees, and the US market shall consist of six chains with five franchisees each. Then, without NPCs, if an employee is looking for a job, they will have the same number of potential employers (30-1=29) in each market and, by the assumptions of the model, the same wages. Assume now that NPCs are introduced, in the US market, each employee sees a reduction in potential employers from 29 to 25, while an EU employee can now apply only for 20 jobs.

Monopsony

$$\phi = \sqrt{\sum_i s_i^2} \times \frac{1}{\epsilon} = \frac{HHI}{\epsilon}$$

[2] accessible at `https://github.com/eurostat/oja_hhi/blob/main/Results/online_annex_oja_hhi_05Nov2021.xlsx`

Assuming, as in our example, that there are N symmetric chains of n franchisees each[3]:

$$\phi = \sqrt{\sum_N \left(\frac{n}{nN}\right)^2} \times \frac{1}{\epsilon} = \sqrt{\frac{1}{N}} \times \frac{1}{\epsilon}$$

Taking the first derivative with respect to ϵ

$$\frac{d\phi}{d\epsilon} = -\sqrt{\frac{1}{N}} \times \frac{1}{\epsilon^2} = -\mathrm{HHI} \times \frac{1}{\epsilon^2}$$

Therefore, for the same change in epsilon, the effect on ϕ and efficiency will be higher the lower the number of symmetric chains (the higher the concentration).

Friction From (4.3) the difference in equilibrium wages between the EU and the US, assuming that the only difference between the two is the distribution of chains in the market, will be:

$$\begin{aligned}\bar{\bar{w}}_{US} - \bar{\bar{w}}_{EU} &= E_{n_{US}(N_{US}-1)}(w) - E_{n_{EU}(N_{EU}-1)}(w) \\ &+ \frac{\beta}{1-\beta}\left[\int_{\bar{w}}^{B}(w' - \bar{w})d\tilde{G}_{US}(w') - \int_{\bar{w}}^{B}(w' - \bar{w})d\tilde{G}_{EU}(w')\right]\end{aligned}$$

Since NPCs reduce potential employers in the EU more than in the US:

$$E_{n_{US}(N_{US}-1)}(w) - E_{n_{EU}(N_{EU}-1)}(w) > 0$$

$$\frac{\beta}{1-\beta}\left[\int_{\bar{w}}^{B}(w' - \bar{w})d\tilde{G}_{US}(w') - \int_{\bar{w}}^{B}(w' - \bar{w})d\tilde{G}_{EU}(w')\right] > 0$$

Which imply:

$$\bar{\bar{w}}_{US} - \bar{\bar{w}}_{EU} > 0$$

$$\bar{\bar{w}}_{EU} < \bar{\bar{w}}_{US} < \bar{w}$$

The EU equilibrium NPC wage is lower than the US NPC equilibrium wage, and both are lower than the non-NPC equilibrium wage $\bar{w}$ (by assumption $\bar{w}$ is the same in the US and EU).

For both models, if the wage effect is significant for the US market, independently of the justification adopted (market power or friction), it should be even more significant for its EU counterpart.

[3]Bearing in mind that Burger King and McDonald's are the main relevant Franchised-QSR Chains in Europe, with around 7500 and 7600 establishments each, the assumption seems reasonable

6 Conclusions

I have described what No-Poaching Clauses (NPCs) are, their use in the US Quick Service Restaurant Industry (QSR), the relevant law in the United States and Europe, and the arguments presented in favour (protection of investment in human capital) and against:

- Classic monopsony
- Dynamic monopsony
- Increase in labour market frictions

The literature provides unambiguous evidence of the overall negative impact of NPCs on employee wages, with estimates ranging between *3.6% and 5.5%.* Until now, the problem posed by No-Poaching Clauses has been thought of only internal to the US market. However, it has recently begun to be noticed that similar trends are observed in other labour markets, such as the Italian one (see the case of non-compete agreements in Boeri et al. (2022). In this article, I highlight for the first time the fact that NPCs are also present in franchise contracts in Italy and describe their characteristics.

Given that the Franchise Contracts of McDonald's Italy (in their publicly available parts) show significant differences with the American ones of the same year (to exploit differences in regulation), I believe it is likely that, even after entering into the Assurance of Discontinuance with the Attorney General of Washington, major international Franchisors continue to use No-Poaching Clauses in the European market.
Based on existing estimates, I also note that the EU QSR market is substantially more concentrated than the US market. I argue that removing NPCs could lead to even higher wage increases in Italy and Europe than those currently estimated for the US market.

Introducing Franchise Disclosure in Italy and specifically requiring information on the presence of worker mobility restrictions would allow for a better study of the phenomenon, its spread, and its effects on the market. Should the Italian Antitrust find grounds to be interested in the issue but consider the currently available information insufficient for an investigation, it could initiate a market survey to ascertain how widespread such Clauses are in the contracts of other Franchisors. Should it rather consider the horizontal nature of No-Poaching Clauses predominant, opening an investigation would certainly be a strong signal and solve the problem at its root.

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