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Non-Voting Party and Wage Inequalities: Long-Term Evidence from Italy

By means of a long-run analysis on electoral and inequality data, this article shows that there exists a temporal correlation between inequalities and non-voting behaviour. Non-voting is progressively becoming a widespread phenomenon, beyond specific national contexts, and challenges the functioning of democracies in advanced capitalist countries. Notably, data on electoral results in Italy do not show a clear leading group of non-voters. Although historically concentrated in southern Italy and predominantly female, non-voters are proportionally increasing in the centre and in the north of the country, independently of the gender dimension. The root causes of the phenomenon should be traced back not only to the political and institutional dimension, but also to a widespread socio-economic determinant, namely labour market inequality, the driver addressed in this article.

The last Italian general election has shown a dramatic decline in electoral participation. For the first time since the fascist *ventennio*, a far-right led government has won the majority (Dosi and Roventini, 2022), while in the past decade, mixed, multi-party coalitions were common. The end of Berlusconi's era, including four governments in which he served as Prime Minister from 1994, and the austerity phase in 2011, has ushered in a period of turbulence in the Italian political landscape that lacks dominant leading parties. However, given the strikingly and continuously increasing numbers of electoral abstention in national and local elections, the true emerg-

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ing winner has been the non-voting party (*partito del non voto*).

Non-voting and abstentionism have been traced back to multiple causes, namely, disaffection, dismantling of mass parties, decaying participation in democratic processes and different forms of opposition. These causes are often linked to the ideological and political factors (Koch et al., 2021; Mannheimer and Sani, 2001) that emphasise the failure of political parties to mobilise voters (Mair, 2013). Non-voting is also interpreted as an expression of individual alienation (Adams et al., 2006), or rather the emergence of a strong criticism against the political system in place. Few studies challenge the material and economic dimensions behind voter participation decline (Bloise et al., 2021; Dalton, 2017; Pianta, 2020; Schäfer and Schwander, 2019).

In this paper, we link trends in non-voting with the social and economic fragmentation of Italian capitalism in its neo-liberal phase. To this aim, we leverage the comparison between two long-term datasets: electoral ballots from 1948 to the last general election in 2022, and the wage remuneration of private employees from 1983 to 2018.

We embrace the underlying hypothesis of a systematic dismantling of democracy due to, among other factors, the rise of overall wage inequality (Galbraith and Hale, 2008; Sassen, 2003). Hence, we investigate the relationship between non-voting and overall wage inequality and among groups of workers, with a special focus on the gender and geographical dimensions. We mainly focus on these two issues because, firstly, as shown below, territorial divides are very relevant in explaining the lack of electoral participation and the distrust in traditional political parties (Rodrìguez-Pose, 2018). Secondly, the gender dimension is of crucial importance, especially given the increasing female participation in the socio-economic sphere and in formal labour markets in the examined period; we therefore analyse whether and to what extent male and female non-voting patterns differ. Indeed, historically participation in politics has been more a matter of male rather than female voters. However, greater numbers of women in the workforce may have increased their participation in the electoral process. Is that the case? And how does the gender wage gap lead to non-voting?

To link the long-run evolution of abstentionism and economic inequality trends, we adopt the wavelet analysis, a methodology that allows for the identification of patterns of co-movements and anti-movements (or lack thereof) in long-run time series. Wavelet analysis allows us to move from the time to the time-and-frequency domain, identifying the cycle waves and lengths of distinct time series. Given its explanatory power, this method is increasingly adopted in long-run macro-econometric studies, e.g. on technological evolution (Staccioli and Virgillito, 2021) or labour share long-run dynamics (Charpe et al., 2020).

Data and method

We rely on two datasets on electoral ballots and wage dynamics. Data on voting behaviour is drawn from the Ministry of Internal Affairs open-data website Eligendo,¹ which provides aggregated and disaggregated information on electoral results that covers the 1946 Constituent Assembly, and all political, European, regional and administrative elections.

In particular, we select data on Italian political elections from 1948 to 2022. Results for the elections of both members of the Chamber and Senate are documented, reporting information on the number of electors, voters and blank ballots for each province, constituency and municipality; the number of male and female electors and voters is reported only from 2001 onwards.

In the following analyses, we consider Chamber data only and compute abstentionism including both non-voters and the number of blank ballots, however, not for the gender dimension, as no gender distinction is provided for blank ballots. The dataset on wage dynamics relies upon the Italian Institute of Social Security (INPS) longitudinal sample (*Rilevazione dei contratti di lavoro*),² a high-quality microaggregated level data based on administrative records. The dataset has a longitudinal structure and is based on a large representative sample of employees in the private sector – except for agricultural and domestic jobs – from 1982 to 2018. Therefore, it does not include information on public employees or any type of self-employed jobs.

For each year, the *Rilevazione dei contratti di lavoro* open archive contains information on the number of jobs, yearly or weekly gross salaries and weeks of work as reported by private sector employers, together with a number of socio-professional characteristics, such as gender, age, typology of employment, region and economic sector of activity.

The wavelet transform provides a time-frequency representation of the original signal, thereby retaining all the relevant information carried by the signal but allowing for the capture of long-run movements. The wavelet transform decomposes the time series under analysis x(t) in terms of some basis functions (wavelets), and thus corresponds to the convolution of x(t) and a set of wavelets. In the wavelet approach, the time-frequency window is adaptive and local, and strikes a better balance between time domain and frequency domain.³

Abstentionism since 1948

Figure 1 shows four phases of abstentionism since the first election in 1948.⁴

Below 10%, from 1948 to 1979. This was the period of the Italian economic miracle, with average growth rates higher than 5% during 1948-1962 and above 4% during 1963-1976 (Barca, 2010). Following 20 years of dictatorship, this was the phase of post-war restructuring and peak politicisation for Italian society characterised by the central role of mass political parties, most prominently the Christian Democrat and the Communist party. This large political participation was both triggered and channelled by mass parties and trade unions until the mid-1960s. From 1968 onwards, political consciousness also developed and found other outlets, outgrowing the perimeter of institutional politics. The final phase

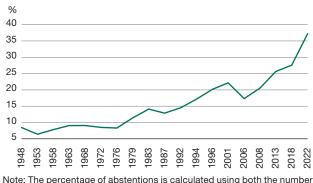
¹ Available at https://elezioni.interno.gov.it/opendata.

² INPS Open Data are available online on INPS website.

³ We opt for the classical Morlet mother wavelet function.

⁴ It is important to recall that, from 1946 to 1993, voting was initially enshrined as an obligation (Art. 1, D.Igs. n. 74/1946). However, consistent with the literature, we do not assume that this obligation has played a significant role in voter participation, since the penalties were almost never enforced (Pallante, 2022).

Figure 1 Abstentionism in Italy, 1948-2022



of abstentions and the number of blank ballots over the total number of electors.

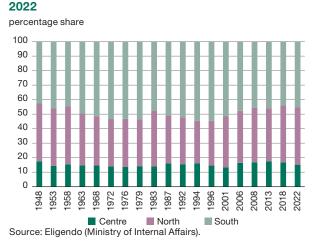
Source: Eligendo (Ministry of Internal Affairs).

of this period is the last major reformist season in Italian politics. Indeed, different progressive laws on economic, social and civil rights were passed, in many instances thanks to civil society mobilisations. Exemplary laws are, e.g. the Workers Statute (1970), Divorce Law (1970), Fiscal Progressive Income Taxation (1973), National and Public Health Service (1978), and the Abortion Law (1978).

Between 10% and 20%, from 1980 to 1996. This was an important transitional phase in Italian politics, with major parties' realignment (Wellhofer, 2001) and the first of a long series of heavy blows to large political participation. This period went through a major political and corruption scandal *Mani Pulite* ("clean hands") in 1992 that led to the dissolution of the main parties of the so-called First Republic and to the emergence of Berlusconi's political force. This phase started with the largest trade union defeat of the decade at Fiat in 1980 and was marked by the abolition of the *Periodo della concertazione* ("concertation period"), a period of wage compression agreed upon by trade unions confederations and the Ciampi Government in 1993.

Between 20% and 30%, from 1997 to 2018 (except for the 2006 elections). This phase was characterised by alternating "third-way" centre-left and Berlusconi governments in substantial economic policy continuity. It was in fact characterised by deep transformations and a neo-liberal turn in the labour market, with the start of flexibilisation by the *Pacchetto Treu* in 1997 and the subsequent reforms aimed at weakening labour market institutions. The scenario brought out the need for

Figure 2 Abstentionism in Italy by geographical area, 1948-



political alternatives, a demand embodied by the new party *Movimento Cinque Stelle* (Five Star Movement), which challenged established parties, particularly during the austerity phase, from 2011, which was managed by technocratic governments substantially supported by the centre-left. The last phase, up until the most recent electoral cycle, has been characterised by an extreme volatility of consensus and a strong decline in electoral participation, symptoms of a less identity-driven vote.

Above 30%, in the last electoral cycle, reaching 37% of non-voters. This was a phase marked by international turmoil due to the pandemic and the war in Ukraine. Two governments led by the Five Star Movement, and a technocratic government led by Mario Draghi have faced exploding inequalities in the labour market, for example, in terms of differentiated access to working from home, exposure to contagion, wage and employment losses (Cetrulo et. al., 2022), and the energy and ensuing profit-inflation spiral (Stiglitz and Regmi, 2023).

Geographically, abstentionism is not equally distributed. It has been historically higher than average in southern Italy, with, for instance, Calabria and Sicily emerging as top non-voting regions. Conversely, central and northerneastern regions, such as Tuscany and Emilia Romagna, have generally had higher voting rates, as a result of historical and political attitudes and a higher proportion of left leaning voters (Passarelli and Tuorto, 2012).

Figure 2 shows the geographical breakdown of non-voting trends by centre, north and south. Notably, within the increasing pattern documented in Figure 1, we do not detect strong turning points in the overall distribution

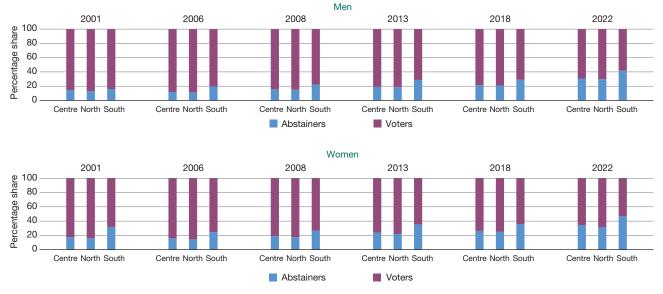


Figure 3 Voters and abstainers in Italy by gender and geographical area

Source: Eligendo (Ministry of Internal Affairs).

of the non-voting rate, which remains almost constant across macro-regions. In the last phase of increasing abstentionism since 2006 elections, there is an increase in non-voters in both the centre and north of the country.

In terms of the gender divide, we consider separately the share of male and female non-voters since 2001, the first year in which the information is available. The female share of non-voters is stable at around 60% over time. This information collides, however, with two other coexisting trends: in the examined period, female participation in the labour force at the national level is approximately 50% – albeit with deep regional differences: female participation in the north is around 70%, while it is only 33% in the south (Mancini, 2017). However, such different distribution in labour market participation is not reflected in non-voting behaviour, where we detect an almost constant between males (40% of abstainers) and females (60% of abstainers). According to such evidence, although overall voting participation has been dramatically decreasing, this decrease has been equally proportional across macro-regions and by gender. In this respect, the increasing share of non-voters does not seem to be attributable to any idiosyncratic electoral dynamics linked to specific regions or to a gender dimension.

Figure 3 presents non-voting behaviour by gender and geographical area over time. While female non-voters in the south historically represent the largest non-vot-

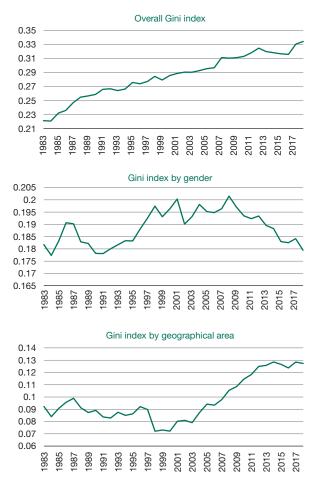
ing group, with a 30%-70% ratio in 2001 compared to a 20%-80% ratio of female and male non-voters/voters in other regions, this ratio keeps increasing over time, and it reaches a maximum of 50% of female abstentionism in the south in 2022. In line with a lack of a specific group behaviour behind non-voting, the ratios of the other groups keep rising, with more similar group dynamics. In fact, in the last electoral ballot, the ratio is in the range of 35%-65% for almost all considered groups except for voters in the south.

The difficulty in identifying clear attributes that are able to explain increasing non-voting prompts us to look at the macroeconomic determinants that might contribute to these patterns. In particular, the impact of wage inequality on voting participation is relatively understudied (Franzini, 2022). We move therefore into the analysis of overall and group wage inequality.

Inequality since 1983

The recent literature has documented a remarkable surge in wage inequality in Italy since 1983 (Franzini and Raitano, 2019). This phenomenon, which started around the same time as the defeat of metal workers in 1980 at the Fiat factory, was then marked by a series of laws aimed at reducing workers' bargaining power and labour protection (Cetrulo et al., 2023). Among the major legislative changes enacted during this period, it is important to mention the end of wage indexation to inflation in

Figure 4 Gini index in Italy, overall and by group, 1983-2017



Source: Rilevazione dei contratti di lavoro (INPS).

1992, the introduction of flexible contracts in 1997 and the Jobs Act in 2015. This radical deregulation process has led to a huge wage compression and a massive rise in the share of non-standard jobs. What is more, consistently with other advanced capitalist economies, increasing inequality among the highest earners has been recorded, with only higher-level professionals among employed workers appropriating the largest benefits in (otherwise stagnant) wage growth.

Figure 4 provides an account of the temporal dynamics of the Gini coefficient overall and by groups, with focus on the gender and geographical dimensions. In the context of a general increasing trend of the overall Gini coefficient (from 20% to 33% in 35 years), we observe that, firstly, the Gini index by gender has been overall stable over time, oscillating in the 18%-20% range, and remarkably increasing until 2008; and secondly, from 2008 onwards, the Gini index by geographical area has been rising more sharply.

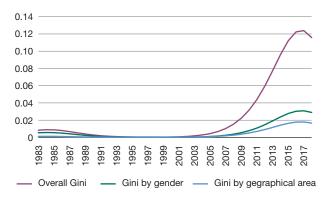
Although the literature shows that within-group inequality is the prevailing component in both the gender and geographical dimensions (Cetrulo et al., 2023), we find it appropriate to look at between-group inequality as it gives an account of the relative positioning among groups. The gender wage gap has remained constant over the past 35 years. This evidence is quite alarming considering the increasing female participation in formal labour markets. Further, it is informative about the lowerlevel jobs, such as low-paid service jobs, which female workers often fill and which usually offer only temporary or involuntary part-time job contracts. Regarding geographical divergence, the increasing trend observed over time is the exacerbation of territorial divides in Italy, with the north-south gap emerging not only in the specialisation in patterns of production (Sbardella et al., 2021) and infrastructure (Viesti, 2021), but also in the labour market and distribution spheres (Fanti et al., 2023). The increasing geographical divide is also similar to other economies, like the internal vs coastal areas of the US, the north-south divide in the UK and France, and the east-west divide in Germany. These increasing socioeconomic divergences within national territories should be acknowledged as key elements in understanding the emerging political distrust of large segments of the population (Mitsch et al., 2021).

Using data from Eligendo, we can account only for the geographical and gender dimensions of voting (while no information is provided in terms of other attributes of voters, such as age or income). Our goal is to understand the extent to which there might be a link between the overall abstentionism rate and the patterns of total and group inequality.

Is inequality the root of non-voting?

To answer our research question, we perform a wavelet analysis between non-voting and inequality, mapped by both the overall Gini index and the group inequality indices. We restrict the analysis to the overlapping 1983-2018 period and, before performing the wavelet analysis, we apply the Christiano-Fitzgerald methodology to filter out the trend component and thus focus only on the cyclical component of the series (Christiano and Fitzgerald, 2003). We deem the cyclical component to be more appropriate for our analysis in view of the time trend dimension and the different frequencies of the events (electoral ballots are quite irregular).





Notes: Wavelet cross power spectra of CF-filtered series. Time average values between medium-long (>5.5) periods, for overall Gini and by groups.

Sources: Rilevazione dei contratti di lavoro (INPS) and Eligendo (Ministry of Internal Affairs).

Notably, the results of the wavelet analysis indicate distinct behaviours between the overall Gini coefficient and Gini by groups. While co-movements in the overall Gini index emerge only at the beginning and at the end of the timespan and with opposite patterns, out of phase until 1990 and in phase since 2008, with relatively high frequencies (2-5 years on the y-axis), the Gini index by groups appears to be in phase with non-voting, at relatively low frequencies (5-11 years). The co-movements emerge particularly since 2000, when abstentionism reached over 20%, and appears to be long lasting, up until last years in the time frame.

In order to have a comparative account of the intensity of the power spectrum in each of the three series of inequality, we calculate the average intensity of the power spectra for each year and distinguish values at mediumlong (low frequencies, above 5.5) and at medium-short (high frequencies, below 5.5) periods. Figure 5 presents the results of the average power spectra across medium-long periods each year. The peak of the cross-power spectra starts after the 2000s and the intensity of the overall Gini power spectrum is larger than the ones of Gini by groups, due to different absolute levels of the three indices. Notably, comparing gender and territorial inequalities, the intensity of the cross-power spectrum is higher with respect to gender-wage, rather than geographical-wage gaps.

Conclusions and policy implications

By means of a long-run analysis on electoral and inequality data, this article shows that there exists a temporal correlation between inequalities and non-voting behaviour. Non-voting is progressively becoming a widespread phenomenon, beyond specific national contexts, and challenges the functioning of democracies in advanced capitalist countries (Mair, 2013; OECD, 2019; Powell, 1982). Europe is gradually converging towards the American model, historically characterised by a dramatically low degree of voting participation (except for the historical record of 66% participation in the 2020 election that pitted Biden against Trump). The lack of participation in voting is not only a signal of detachment from the political sphere, but it also signals an overall dismantling of the coupled dynamics of the economic and social spheres, and the corresponding rights, in democratic institutions.

Notably, data on electoral results do not show a clear leading group of non-voters, who, although historically concentrated in southern Italy and more prevalent among women, are proportionally increasing also in the centre and in the north of the country, independent of gender dimension. If so widespread, the root causes of the phenomenon should be traced back not only to the political and institutional dimension, but also to widespread socio-economic determinants, such as inequality in labour market, the driver we have explored in this article. The increasing intensity co-movements of inequality and non-voting after the 2000s can also be traced back to alternative political and socio-economic sources, given that this phase was characterised by the juncture between the flexibilisation of labour markets and the establishment of the spectacular politics embodied by the Berlusconi era.

The rise of the non-voting party is a threat to the opportunity to manifest contrasting claims and interests in the political sphere, making the conflict of ideas explicit, which is ultimately what democracy should be about. If citizen participation in the political process dwindles, the divide between the elite and the people will be amplified, as well as the growing gap in their respective political influence (Gilens et al., 2014). Noting that inequality is a long-run determinant of electoral disaffection, policies should be aimed at increasing the number of good quality jobs while reducing unequal treatment in the workplace.

References

- Adams, J., J. Dow and S. Merrill (2006), The political consequences of alienation-based and indifference-based voter abstention: Applications to presidential elections, *Political Behavior*, 28, 65-86.
- Bloise, F., D. Chironi and M. Pianta (2021), Inequality and voting in Italy's regions, *Territory, Politics, Governance*, 9(3), 365-390.
- Cetrulo, A., D. Guarascio and M. E. Virgillito (2022), Working from home and the explosion of enduring divides: income, employment and safety risks, *Economia Politica*, 39(2), 345-402.

- Cetrulo, A., A. Sbardella and M. E. Virgillito (2023), Vanishing social classes? Facts and figures of the Italian labour market, *Journal of Evolutionary Economics*, 33(1), 97-148.
- Charpe, M., S. Bridji and P. Mcadam (2020), Labor share and growth in the long run, *Macroeconomic Dynamics*, 24(7).
- Christiano, L. J. and T. J. Fitzgerald (2003), The band pass filter, International Economic Review, 44(2), 435-465.
- Córdova, A. and G. Rangel (2017), Addressing the gender gap: The effect of compulsory voting on women's electoral engagement, *Comparative Political Studies*, 50(2), 264-290.
- Dalton, R. J. (2017), The participation gap: Social status and political inequality, Oxford University Press.
- Dosi, G. and A. Roventini (2022), The Leopard: How a Post-Fascist Party Rose to Power in Italy, *Intereconomics*, 5, 270-271, https://www.intereconomics.eu/contents/year/2022/number/5/article/the-leopard-how-a-post-fascist-party-rose-to-power-in-italy.html (20 July 2023).
- Fanti, L., M. C. Pereira and M. E. Virgillito (2023), The North-South divide: sources of divergence, policies for convergence, *Journal of Policy Modeling*, 45(2), 405-429.
- Franzini, M. and M. Raitano (2019), Earnings inequality and workers' skills in Italy, Structural Change and Economic Dynamics, 51, 215-224.
- Franzini, M. (2022), Disuguaglianza economica, comportamenti elettorali e disuguaglianza politica in C. Fumagalli and V. Ottonelli (eds.), Votare o no La pratica democratica del voto, tra diritto individuale e scelta collettiva, 61-73, Fondazione Giangiacomo Feltrinelli.
- Galbraith, J. K. and J. T. Hale (2008), State income inequality and presidential election turnout and outcomes, *Social Science Quarterly*, 89(4), 887-901.
- Gilens, M. and B. I. Page (2014) Testing theories of American politics: Elites, interest groups, and average citizens, *Perspective on politics*, 12(3), 564-581.
- Koch, C. M., C. Meléndez and C. Rovira Kaltwasser (2021), Mainstream voters, non-voters and populist voters: what sets them apart?, *Political Studies*, 00323217211049298.
- Mair, P. (2013), Ruling the void: The hollowing of Western democracy, Verso Books.
- Mancini, G. (2017), Women's labor force participation in Italy, 1861-2016, HHB Working Paper Series, 8, The Historical Household Budgets Project.
- Mannheimer, R. and G. Sani (2001), La conquista degli astenuti, V. 120, Il Mulino.
- Mendez, J. M. and T. Osborn (2010), Gender and the perception of knowledge in political discussion, *Political Research Quarterly*, 63(2), 269-279.
- Mitsch, F., N. Lee and E. R. Morrow (2021), Faith no more? The divergence of political trust between urban and rural Europe, *Political Ge*ography, 89, 102426.
- OECD (2019), Declining voter turnout in OECD countries: Change in average voting rates per decade in OECD countries, 1990s and 2010s, in *Trends Shaping Education 2019*, OECD Publishing.
- Pallante, F. (2022), Il dovere che non c'è più? Sull'abolizione delle sanzioni all'obbligo di voto in Italia, in C. Fumagalli and V. Ottonelli (eds.), *Come votiamo? La pratica democratica del voto, tra diritto individuale e scelta collettiva*, 33-45, Fondazione Giangiacomo Feltrinelli.
- Passarelli, G. and D. Tuorto (2012), The Lega Nord goes south: The electoral advance in Emilia-Romagna: A new territorial model?, *Political Geography*, 31(7), 419-428.
- Pianta, M. (2020), Italy's political upheaval and the consequences of inequality, *Intereconomics*, 55(1), 13-17, https://www.intereconomics. eu/contents/year/2020/number/1/article/italy-s-political-upheavaland-the-consequences-of-inequality.html (20 July 2023).
- Powell, G. B. (1982), Contemporary democracies: Participation, stability, and violence, Harvard University Press.
- Rodríguez-Pose, A. (2018), The revenge of the places that don't matter (and what to do about it), *Cambridge journal of regions, economy and* society, 11(1), 189-209.
- Sassen, S. (2003), The participation of states and citizens in global governance, *Indiana journal of global legal studies*, 10(1), 5-28.

- Sbardella A, A. Zaccaria, L. Pietronero and P. Scaramozzino (2021), Behind the Italian regional divide: An economic fitness and complexity perspective, *Sinappsi*, XI(2), 50-73.
- Schäfer, A. and H. Schwander (2019), 'Don't play if you can't win': does economic inequality undermine political equality?, *European Political Science Review*, 11(3), 395-413.
- Staccioli, J. and M. E. Virgillito (2021), Back to the past: the historical roots of labor-saving automation, *Eurasian Business Review*, 11, 27-57.
- Stiglitz, J. E. and I. Regmi (2023), The causes of and responses to today's inflation, *Industrial and Corporate Change*, 32(2), 336-385.
- Viesti G. (2021), Centri e periferie: Europa, Italia, Mezzogiorno dal XX al XXI secolo, Laterza.
- Wellhofer, E. S. (2001), Party realignment and voter transition in Italy, 1987-1996, *Comparative Political Studies*, 34(2), 156-186.