Italy's lost babies - a Quantitative Review of Low Birth Rate in Italy and its Implications

Minerva University

SS146 - Practice of Governance

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Italy's 200,000 lost babies - a Quantitative Review of Low Birth Rate in Italy and its Implications

Introduction

Italy has once again broken the European record for the lowest birth rate in the EU, with a staggering 379,000 births in 2023 (roughly six newborns per thousand residents), making this the 16th consecutive annual decline and the lowest number since Italian unification in 1861 (Reuters, 2024; Orlandi, 2024; Rossi, 2024). The already low rate of 1.24 children per woman dropped even lower in 2023 to 1.2 - below the 2.1 level needed, in economists' terms, for the population to sustain itself without immigration (Migliaccio & Bloomberg, 2024). It is estimated that Italy has lost over 200,000 newborns since 2008 (Orlandi, 2024) while also having the highest population of older adults (Carbonaro, 2024).

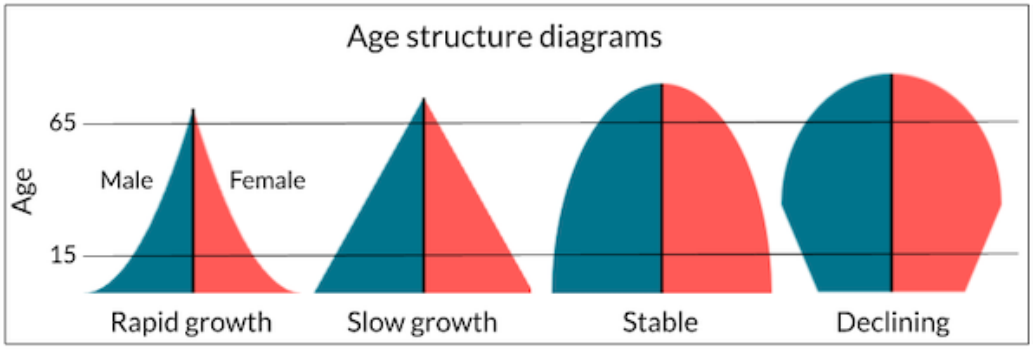

Figure 1. *An age structure diagram, or population pyramid, visually represents the distribution of age and sex in a population, with age groups on the y-axis and population percentages of males and females on the left and right sides of the x-axis. Although there are no specific guidelines on how a country's population should look, the consensus is that a population with large fractions of young and reproductive-age individuals is likely to grow. In contrast, the opposite (post-reproductive age) is likely to shrink (Khan Academy, n.d.).*

Low birth rates adversely affect a country, particularly in workforce sustainability, social security burdens, and national debt (Bricker, 2021). Under the economic lens, fewer births shrink the workforce with the population aging, leading to reduced tax revenue and economic productivity that supports an aging population. In a feedback look, this imbalance leads to fewer workers supporting more retirees and putting pressure on social welfare systems (Social Security Administration, 2006). The same applies to economic growth, often leading to higher debt-to-GDP ratios as they borrow more to fund social programs. This is particularly true in countries with limited immigration to offset the declining native workforce (Borjas, 2019).

Given that Italy has been dealing with the issue of low birth rates for almost a decade, it calls for an analysis of the Italian government's ability to revert this trend using the governance concepts of **state capacity** and **social inclusion.** To what extent can Italy's current governance structures and policies support a reversal of its low birth rate trend, and how?

Thus, this paper argues that Italy can address the declining birth rate through state capacity and social inclusion engagement if it increases family-focused spending and improves immigrant integration to leverage higher birth rates among the non-EU population.

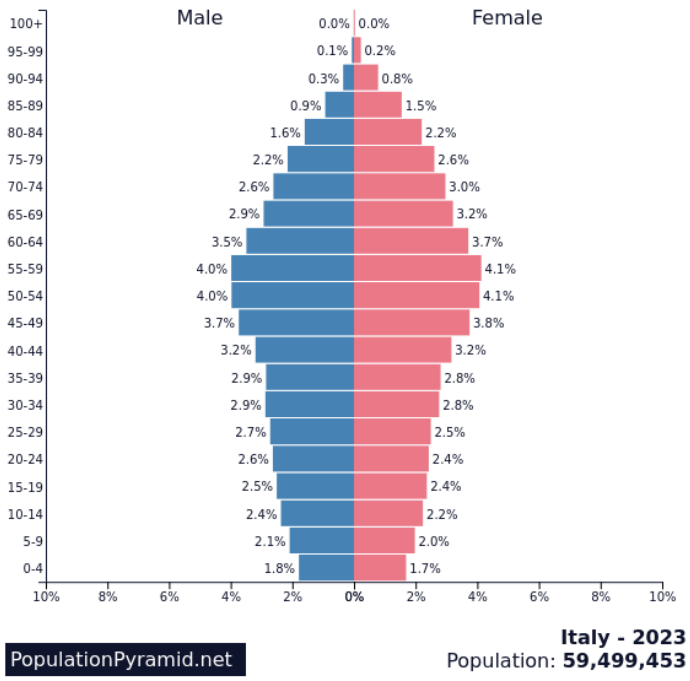

Figure 2. *Italy's population pyramid is based on 2023 data (Population Pyramid, 2023), indicating that the Italian population is declining. It is also worth assuming that the high number of people in the 45-64 age group is likely due to immigration, as the following figures indicate.*

Italy's governance

State capacity will assess Italy's economic and administrative capabilities for funding and implementing family-centered initiatives that could encourage higher birth rates. Social inclusion will investigate how immigration and integration policies, particularly those affecting non-EU immigrants with higher birth rates, might help to sustain the population.

On capacity

Although difficult to define, capacity can be understood as the administration and utilization of resources (ex, physical, natural, etc.), as well as the existence of infrastructural power to penetrate society and realize its objectives (Cingolani, 2013, p. 11). Some of these resources include financial resources, capable administrative capacity, organizational unity, the acquiescence of civil society, and more (Cingolani, 2013, pp-3-8).

Given its multifaceted nature, capacity includes the dimensions of state power, such as fiscal and administrative, with the Italian government relying on infrastructural power to primarily exert a Demiurge role (provider of goods and services) (Soifer, 2008). An example of that is the government's taxation capacity over time (fiscal capacity), as indicated in Figure 3. Almost half of Italy's GPD comes from tax revenue, indicating that the country can generate revenue.

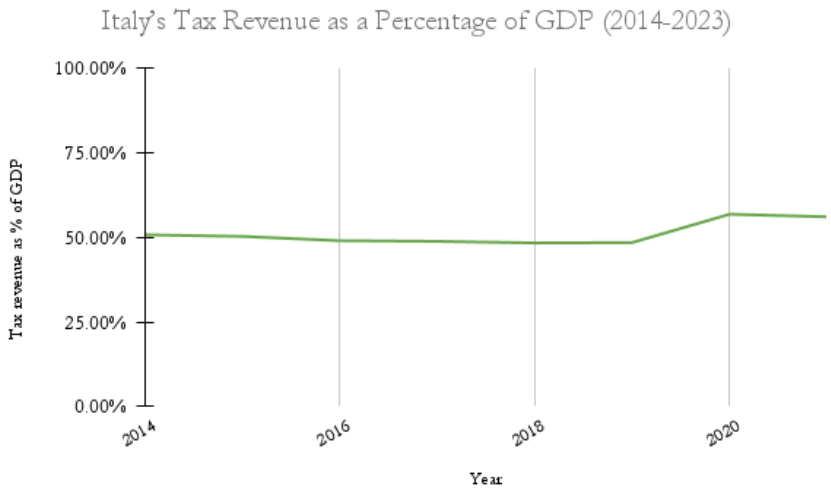

Figure 3. *By calculating the government's revenue, expenditure, and main aggregates and comparing them to the gross domestic product, we see that Italy's tax revenue percentage of the GDP is*

high, at approximately 50% (Eurostat, 2023). This data was collected from Eurostat and the calculations can be found in this spreadsheet[1].

When considering Italy's public spending on family policies, or a proxy for administrative capacity (Figure 4), we see that Italy has been investing millions of euros into services, cash benefits, and structures for families and children.

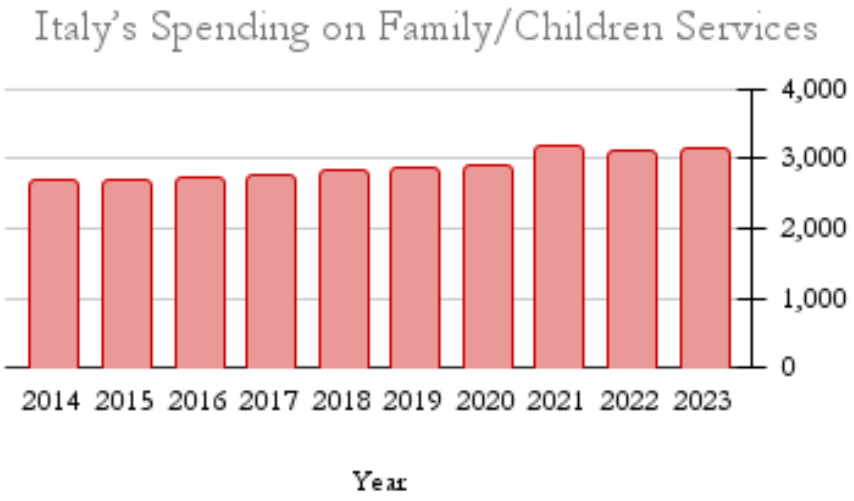

Figure 4. *This figure shows Italy's spending on family/children, including services, cash benefits, and structures (total in millions of Euros). Note that spending increased during the COVID-19 pandemic. Note that values for 2022 and 2023 were estimated since data wasn't available for these years. Details about this estimation can be found in the spreadsheet.*

[1] All of the data in the following visualizations were collected from EuroStat. The calculations and polishing of the data can be found in the spreadsheet. Note that some of the numbers had to be predicted given the lack of data, but these predictions are explained in the #descriptivestats appendix below.

Nevertheless, these investments correspond to, on average, about 0.3% of the tax revenue and about 0.16% of the national GDP and have remained relatively stable even during the COVID-19 pandemic. In 2014, Italy spent 96.25% of its total expenditure on social protection benefits, increasing to 96.86% in 2021 (EuroStat, 2023).

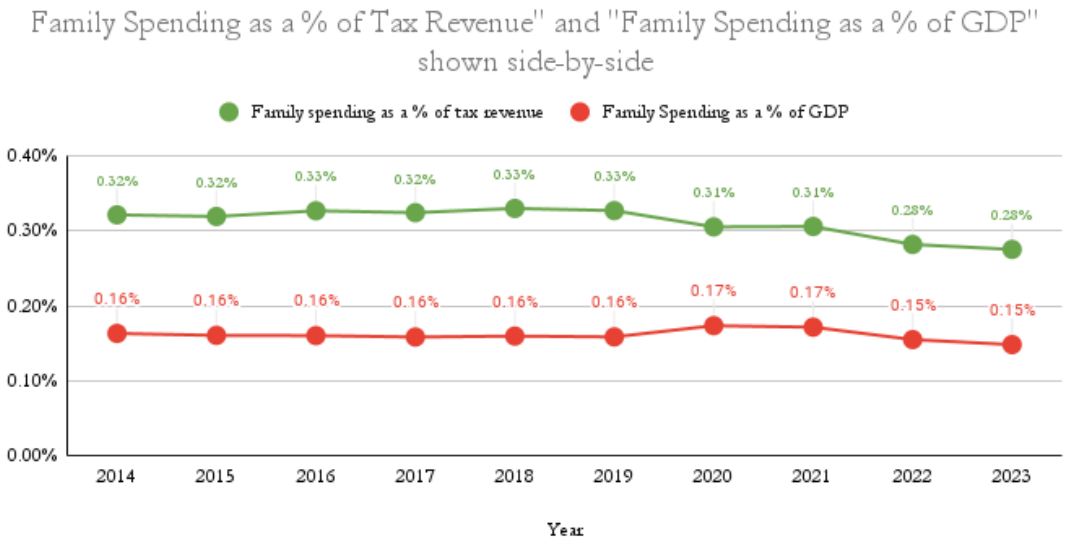

Figure 5. *Comparing the percentage of family spending on tax revenue and GDP, we see that it has remained relatively stable throughout the years, with slight changes in 2021 due to pandemic relief programs.*

Despite clear investment in family support benefits and social protection as part of the government's administrative capacity, the birth rate remains low, leading to an investigation of service delivery efficiency (downstream capacity) through an indirect measure. Data indicates that Italy has a high percentage of children aged less than 3 years in formal childcare, with this number increasing throughout the years (see figure below).

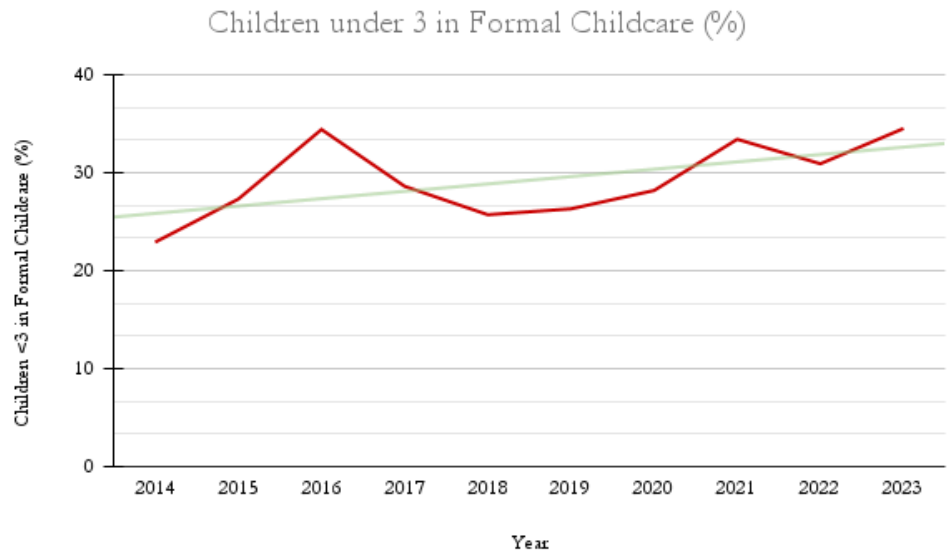

Figure 6. *Percentage of children under 3 in formal childcare over the years. Although the patterns oscillate, the overall trend is progressive, showing that Italy has been providing formal childcare.*

Fertility states often correlate birth rate and services for childcare (Golovina et al., 2023); formal childcare arrangements are a direct indicator of access to family-related services, with higher percentages reflecting greater accessibility and utilization of these services. However, a brief look at the crude birth rate (figure below) makes it possible to conclude that despite childcare services, families still do not have (enough) children. Childcare services are necessary but not sufficient to increase birth rates.

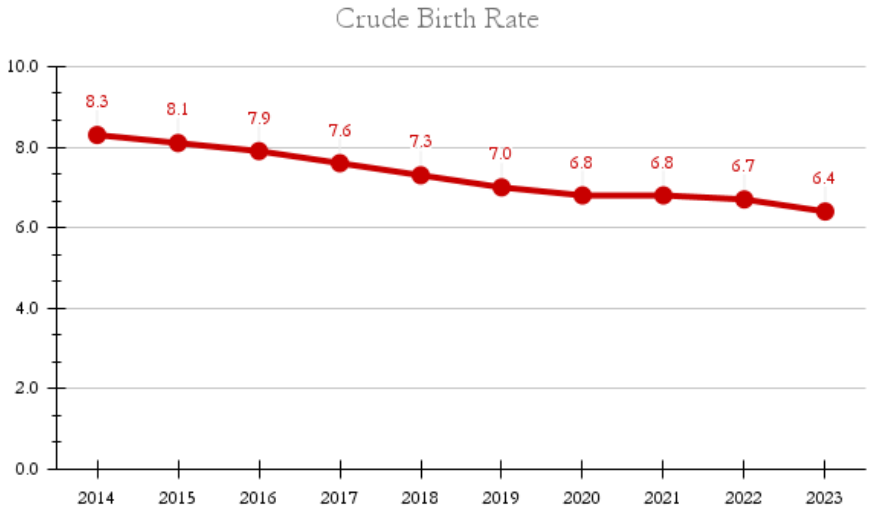

Figure 7. *Crude birth rate per 1,000 inhabitants. There has been a clear decline over the years.*

Italy demonstrates strong fiscal and administrative capacity, with high tax revenue and some investment in family support and childcare services; however, these efforts fall short of reversing the declining birth rate, prompting a closer look at social inclusion indicators to assess their impact on family dynamics. Regarding overall downstream capacity, overall indicators show that unemployment rates and educational attainment have improved (see Figure 8). Yet, birth rates continue to fall, creating a misalignment with the real needs of families deciding on childbirth.

On social inclusion

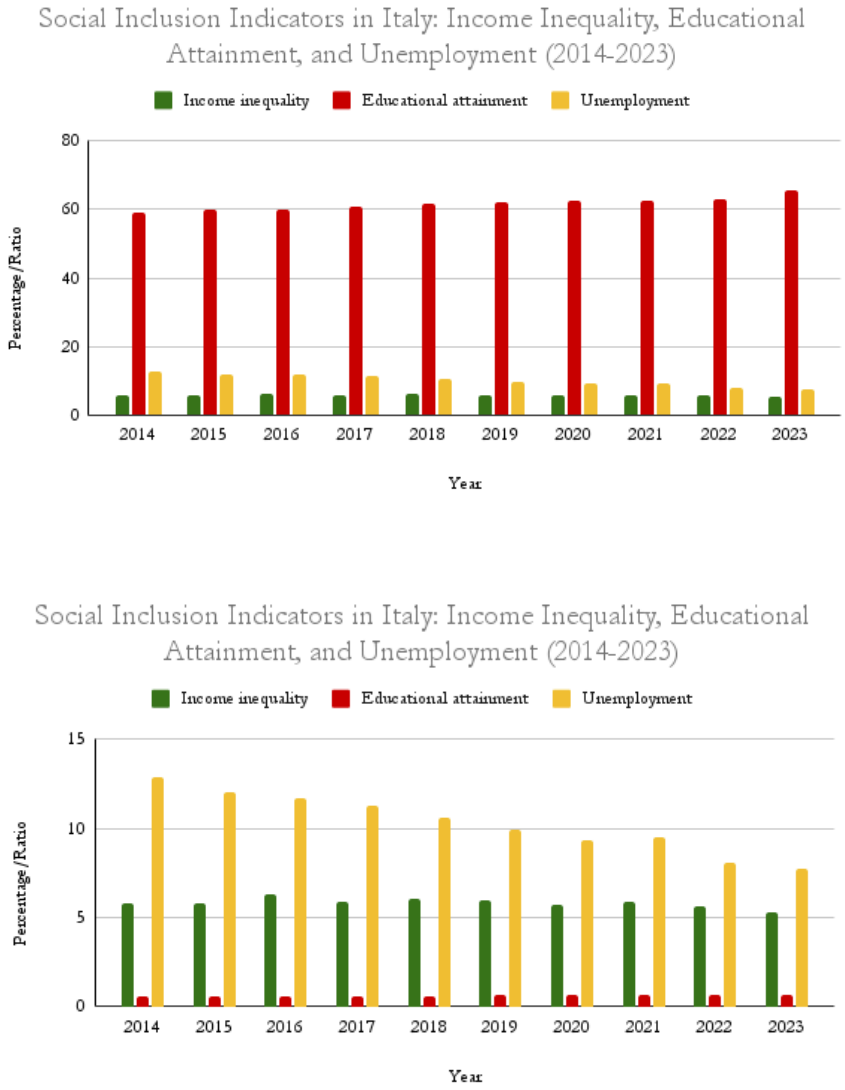

Figure 8. *Dual projections of income inequality, educational attainment, and unemployment due to differences in scale. The educational attainment variables are measured in percentages, while unemployment and income inequality are measured in ratios. Regardless of the scale, the graphs show that educational attainment has increased over the years just as unemployment rates and income inequality have decreased.*

A significant social debate in Italy and across Europe centers on immigration and the integration of diverse cultures and family dynamics (Ambrosini, 2013). Examining data on this issue provides insight into the role of social inclusion in shaping demographic trends. Figure 9 compares the participation of non-EU immigrants in the Italian labor force to the immigrant population, indicating that about ⅓ of immigrants are working.

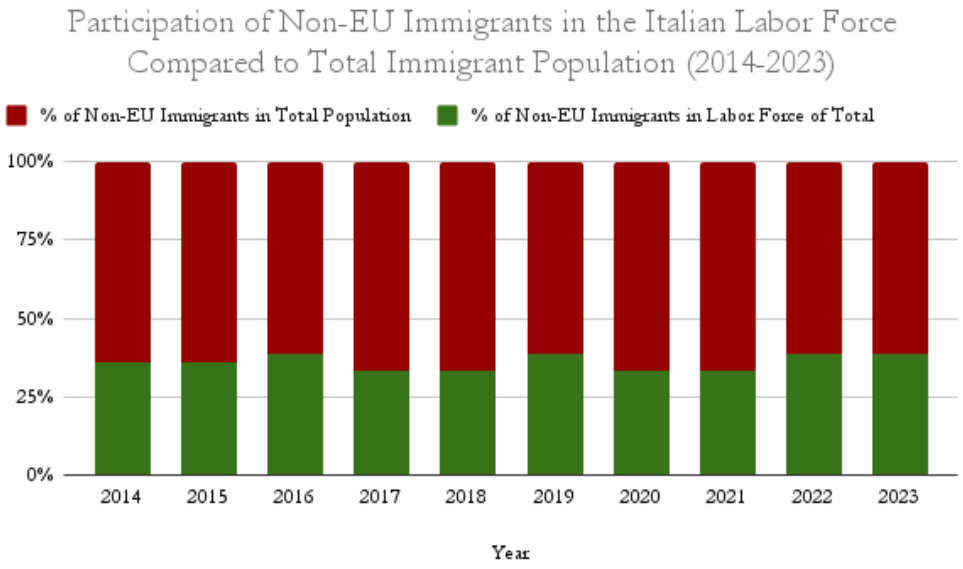

Figure 9. *Participation of non-EU immigrants in the Italian labor force compares to the number of immigrants in the population. A quick glance shows that an overwhelming majority of immigrants are not part of the labor force, implying a possible reliance on welfare programs.*

Narrowing down the lens of immigrants towards this paper's exploratory challenge, about 75% of the live births in Italy were of non-EU mothers, maintaining the current birth rate in the country. In simple terms, the babies being born in Italy come from immigrant families, while only 30% of the immigrants are actively in the labor force.

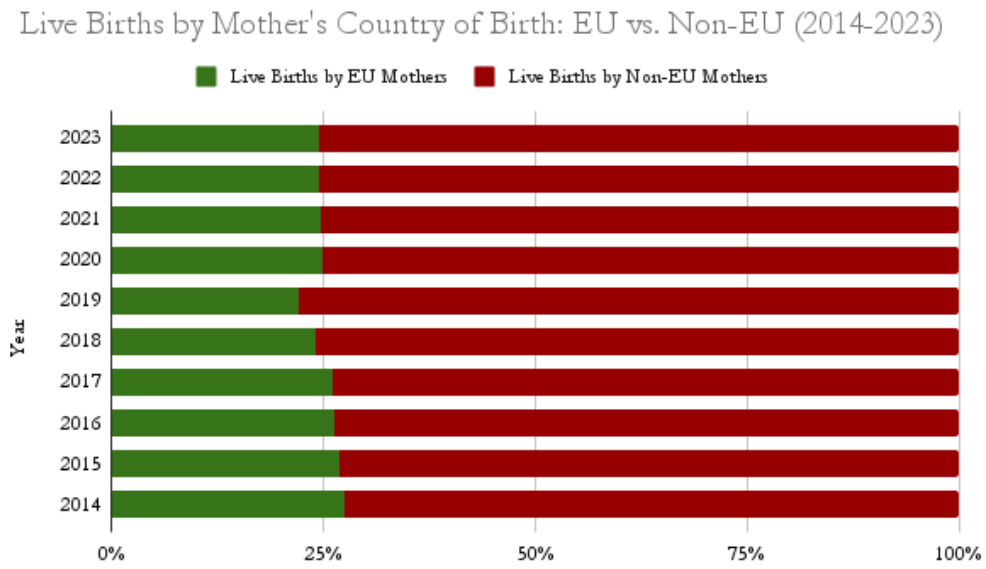

Figure 10. *Live births by mother's country of birth over the years as a percentage. Out of all of the births in the country over the past decade, most of them were of children of immigrants.*

On networks

In order to address low birth rates, Italy's collaborative framework—which includes government agencies, non-governmental organizations, and private sector partnerships—offers focused assistance for family programming and immigrant integration through the use of a policy network approach (Rhodes, 1997; Börzel, 1998). To strengthen these networks, nevertheless, efficient resource allocation and coordination are still essential (Klijn & Koppenjan, 2000).

Conclusion

Italy has a considerable fiscal commitment to family and social security spending, indicating significant governmental capacity. However, with immigrant births accounting for 75% of all

live births but just one-third of immigrants in the labor market, integration hurdles remain, undermining Italy's social democratic inclusivity (Migliaccio & Bloomberg, 2024).

Italy's integration initiatives encourage immigrant communities to progressively adopt local cultural norms, especially in family relations, as highlighted by Migliaccio and Bloomberg (2024). As immigrant family customs match with Italian models that encourage smaller families, this cultural absorption eventually serves to sustain Italy's demographic trends rather than bringing about revolutionary changes in birth patterns (Bisin & Patacchini, 2012). Thus, maintaining Italy's birth rates involves more than just short-term immigrant contributions; resolving structural debt, improving family assistance, and changing cultural conceptions of motherhood are critical to long-term demographic resilience.

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LO & HC Appendix

#SS146-GovernanceConcepts:

In order to analyze Italy's low birth rate problem from both a theoretical and practical standpoint, I have defined, clarified, and applied the governance concepts of state capacity, social inclusion, and policy networks in this assignment. Out of all the concepts discussed in class, these three were the most relevant given that capacity extracts, manages, and directs resources, highlighting the economic component of the exploratory challenge. Social inclusion would also bring the social dimension, particularly given the prominence of immigration in the country. And policy network would integrate the public and private sectors.

To be more specific: Using Cingolani (2013) as a guide, I evaluated Italy's administrative and economic capacity to finance and carry out family-centered programs, like better childcare facilities and more family support spending, which are essential for promoting higher birth rates. Additionally, I looked at social inclusion by examining how immigration and integration policies support Italy's population, especially those that impact non-EU immigrants with higher birth rates. This approach emphasizes the relevance of inclusive policies in alleviating demographic decline by leveraging immigrant groups' higher fertility rates (Ambrosini, 2013). In addition, I used policy networks to demonstrate cooperation frameworks across public agencies, commercial sector entities, and civil society organizations, demonstrating how coordinated efforts can improve the success of family and integration policies. Due to constraints of time and word count, I could not elaborate as much on policy networks as much as I would have wanted.

#descriptivestats:

All of my calculations and data polishing can be found in this spreadsheet. I used this HC to calculate, interpret, and analyze key statistical metrics related to Italy's demographic statistics, including birth rates and population trends. By accessing Eurostat databases, I was able to work with full and comparable data, filtering it to meet the specific parameters required for this analysis. These are screenshots of my calculations.

	A	B	C	D	E	F	G	H	I
1	Year	Active recent immigrants by sex, age and citizenship (% of pop in the labor force and non EU countries)	Employed recent immigrants by sex, age and citizenship, as % of total employment, age 15 to 64	Recent immigrants by sex, age and citizenship, Non EU, percentage of total population	Live births by mother's age and country of birth, number, EU	Live births by mother's age and country of birth, number, NON EU	Inequality of income distribution (ratio, sex total, age total)	Percentage of the Population with at Least Upper Secondary Educational Attainment (%)	Unemployment rate by sex total, from 15 to 74, % of pop in the labor force
2	2014	0.70%	0.50%	0.90%	31,430	82,818	5.78	0.593	12.9
3	2015	0.70%	0.50%	0.90%	29,656	80,341	5.84	0.599	12
4	2016	0.60%	0.50%	0.80%	28,567	80,394	6.27	0.601	11.7
5	2017	0.60%	0.40%	0.80%	27,378	79,972	5.92	0.609	11.3
6	2018	0.50%	0.40%	0.80%	24,995	78,840	6.09	0.618	10.6
7	2019	0.60%	0.50%	0.80%	21,004	74,298	6.01	0.623	9.9
8	2020	0.50%	0.40%	0.80%	26,210	78,765	5.75	0.626	9.3
9	2021	0.50%	0.40%	0.80%	25,729	78,426	5.86	0.627	9.5
10	2022	0.50%	0.50%	0.80%	25,403	78,195	5.62	0.63	8.1
11	2023	0.60%	0.50%	0.80%	25,199	78,064	5.27	0.655	7.7
12									

	A	B	C	D	E	F	G	H	I
1	Year	Government revenue, expenditure and main aggregates in Million units of national currency (sector: general government)	GDP per year in current prices (million of euros)	Tax revenue as % of GDP	Italy's spending on family/children, including services, cash benefits, structures (total in million of euros)		Family spending as a % of tax revenue	Family Spending as a % of GDP	
2	2014	829,632	1,635,871	50.72%	2,669		0.32%	0.16%	
3	2015	835,694	1,663,278	50.24%	2,670		0.32%	0.16%	
4	2016	835,037	1,704,857	48.98%	2,732		0.33%	0.16%	
5	2017	851,015	1,744,493	48.78%	2,763		0.32%	0.16%	
6	2018	859,018	1,777,744	48.32%	2,837		0.33%	0.16%	
7	2019	873,598	1,804,067	48.42%	2,860		0.33%	0.16%	
8	2020	948,296	1,670,012	56.78%	2,898		0.31%	0.17%	
9	2021	1,032,343	1,842,507	56.03%	3,161		0.31%	0.17%	
10	2022	1,096,597	1,997,055	54.91%	3,094	Predicted values	0.28%	0.15%	
11	2023	1,144,854	2,128,001	53.80%	3,154	Predicted values	0.28%	0.15%	
12									

I used Google Sheets' predictive features, such as the linear and trend functions, for datasets that lacked recent values, especially the live birth data. These techniques enabled me to generate an estimated progression of Italy's birth rates, even if linear predictions might not accurately reflect the subtleties of demographic shifts because birth rates usually do not follow a

pure linear trend. This method maintained the precision of statistics within the parameters of the assignment while offering a workable answer in light of the data limitations.

AI Statement: I used ChatGPT to help me outline the data and plan how the graphs would look like. I also used Grammarly to correct grammar mistakes.