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To grow out of its debt, Southern Europe must look beyond tourism and solve its demographic crisis

EXECUTIVE SUMMARY

While the good tourism season benefits Southern European economies, their tourism-led growth raises questions on their structural vulnerabilities that could shape their long-term sustainability. From a broken engine a decade ago, Southern Europe has become the workhorse of the post-pandemic European recovery. In 2021-23, Italy, Spain, Greece and Portugal have consistently accounted for **between a fourth and half of EU GDP growth**. Mediterranean countries benefit from a steady recovery in the tourism sector, enabling them to pick up the slack in driving EU growth at a time when Europe's traditional economic core is struggling (Germany, in particular) to get back on its feet due to manufacturing gloom. While tourism had plummeted during the pandemic, tourist numbers are now mostly back to pre-pandemic levels. The figures for the first half of 2023 confirm a record summer, from which Southern Europe benefited even more. This upturn is also driven by the return of international travelers, which remains slightly below pre-pandemic levels at EU level, but above for Southern Europe. Tourism recovery is expected to play a central role in the growth resilience of Southern Europe whose economies are particularly dependent on it. **The sector accounts for over 10% of the GDP of countries in this region** and is a significant engine of their economy through numerous channels. It can be a palliative to stimulate Southern European countries' growth. However, **this favorable momentum could come to an end because of an uncertain demand outlook but also of structural pitfalls**. The scope for tourism growth is likely to be increasingly limited while countries' comparative advantage may be affected by changes in travel habits due to today's inflationary world and growing concerns about climatic conditions.

Such reliance on tourism leads to a **noticeable distortion in terms of productivity compared with the rest of Europe** due to more low value-added activities in their economy. In the meantime, tourism-related activities are characterized by a weaker workforce with lower education and more precarious employment. The question of productivity is of utmost importance for Italy, where **population decline means labour shortages are here to stay**. By 2040, Italy's working-age population is set to contract by 11.7%, vs. 2.4% in France; 4.1% in Spain and 4.9% in Germany. Population decline hinders the benefits of EU-funded investment plans: capital cannot be used productively without the workers to operate it.

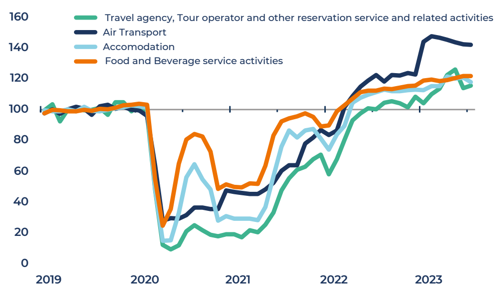
In the short run, **the most realistic way to avoid this is to accelerate the recruitment of women into the labour force**, like Spain in the 1990's-2000's. Only 55% of women in Italy hold formal employment, vs. 70% in Spain. **To meet the fiscal and growth targets set in the 2024 budget, Italy needs to add roughly 1 million women to its labour force and bring productivity growth up to an annual 0.5% (vs. the current 0.2%) by 2027**. If policies aimed at women's work and productivity underperform, there will be a greater need for foreign workers, with a growing role for less qualified labour. Between 2011 and 2021, the college-educated workforce increased by 35%, while the workforce without a college diploma contracted by 6%. This cohort is thus the driving force behind the broader contraction of the workforce.
In the long run, **artificial intelligence can become a game changer**. If adopted fast enough, A.I. shows great potential to durably boost productivity, perhaps enough to compensate for the demographic drag. Conversely, if concerns for A.I.-driven job displacement materialize, then a declining population could help alleviate the ensuing unemployment problem.

I. The ever-growing role of tourism in Southern Europe could hide some pitfalls

EU tourism strongly recovers in 2023, with Southern Europe on the top

After collapsing due to travel restrictions to combat Covid-19, **tourist numbers are now returning to pre-pandemic levels across Europe**. Indeed, despite broader demand headwinds, the EU recorded a record-breaking summer, with the number of nights spent in tourist accommodation reaching its highest level for a decade (1,198 million in H1 2023, i.e. +1.3% compared with H1 2019)[1], signaling a significant upturn in the sector's performance in many countries. Although inflation and rising travel costs are weighing heavily on consumers' wallets, households are willing to spend on travel compared to other expenses. As a result of this tourist inflow, but also of rising prices, especially for transport, turnover of tourist activities rose by an average of 30% with Q2 2023 compared to Q2 2022, and by 25% compared with 2019 **(Chart 1).**

Chart 1 - Tourism activities turnover EU 27 (seasonally and calendar adjusted, 2019 = 100)



Sources: Eurostat, Coface

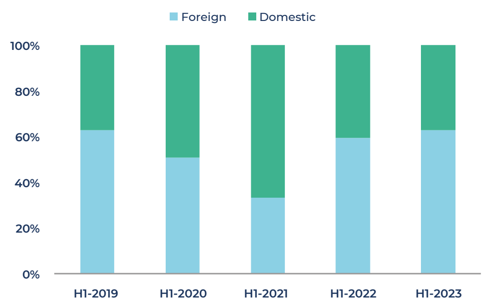
The return of tourists is fueling the continent's economic resilience, particularly that of Southern European countries, which experienced an even sunnier tourist season. In terms of arrivals in tourist accommodation (domestic and foreign travelers), the EU as a whole remains -0.5% below its H1 2019 figures despite a 16% increase compared with the same period in 2022. Southern Europe[2], meanwhile, posted total arrivals 0.8% and 14.3% higher in H1 2023 than in 2019 and 2022, respectively. Among the Mediterranean countries, only Italy remains below its pre-pandemic figures (-7%).

While domestic demand remains robust, **the return of international customers (from both EU and non-EU countries) has significantly boosted tourism results.** The number of nights spent in Southern European accommodation establishments rose by 20.2% during the first half of the year compared with 2022, and by 1.1% compared with 2019 (+23.5% and -1.2% respectively at EU level). While the share of foreign tourists in total nights spent was hit hard by the pandemic, reaching 33% in H1 2021, it has returned to a level equivalent to that before the crisis, rising to 63% in the first half of 2023 **(Chart 2).**

This recovery in international tourism has been notably driven by the arrival of many Americans who, despite the depreciation of the US dollar against the euro in recent months, were able to take advantage of favorable exchange rates in 2022 to plan their trips to Europe for this year. On the other hand, the end of the zero-Covid policy in China has initiated a gradual return of Chinese tourists, although remaining below 2019 levels. Southern European countries therefore benefited from an increase in travel services revenues, which totaled 73,194 million euros over the first six months of this year, or 25% more than last year and 17% more than in 2019 over the same period.

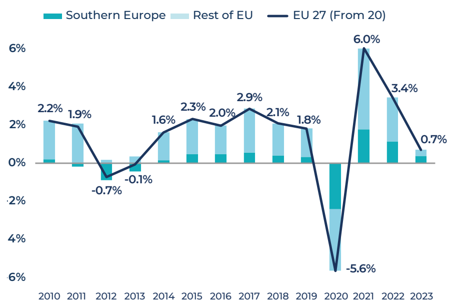
Despite a global economic slowdown, **the continued recovery of tourism is expected to play a central role in the growth of Southern European countries**, whose economies are particularly dependent on the sector. In 2019, the travel and tourism sector contributed 9.6% to EU GDP[3]. On the other hand, Croatia was the EU country with the highest participation of the sector in its economy, at 25.6% of its GDP, followed by Greece (20.7%), Portugal (17.3%), Malta (15%), Spain (14.1%), Cyprus (13.7%), and Italy in eleventh position (10.6%). While these countries were among the most affected during the health crisis, tourism is expected to restore momentum to their economies and place them as key contributors to the EU's economic growth in 2023. According to Coface growth forecasts, weighted based on each country's share in total European GDP, Spain, Italy, Portugal, and Greece will together contribute around 52% to total EU growth in 2023 **(Chart 3)**.

Chart 2 - Origins of tourists in total nights spent at tourist accommodation establishments, Southern Europe



Sources: Eurostat, Coface

Chart 3 - EU real GDP growth, Southern Europe[4] contribution



Sources: Eurostat, Coface

1 - Eurostat
2 - Italy, Spain, Portugal, and Greece
3 - World Travel & Tourism Council (WTTC)
4 - Italy, Spain, Portugal, and Greece

Tourism as an essential catalyst for economic activity in Southern Europe

The ongoing recovery of tourism since the pandemic places the industry at the heart of growth in Southern European countries. Tourism is a significant engine of their economy through a number of channels: tourism activities encourage investment in infrastructure and generate numerous jobs and tax revenues. Considering the share of tourism's direct gross value added (GVA)[5] in the economy's total GVA, the countries of Southern Europe are among those with the highest contribution **(Chart 4)**. While the average contribution of tourism to total EU GVA was estimated at 4.5% in 2019, Croatia recorded the highest contribution (11.3%), followed by Portugal (8.1%), Greece (7.7%), Spain (6.9%), Hungary (6.8%) and Italy (6.2%). Tourism is a major contributor to net exports of services and is an essential source of foreign currency, reducing countries' financing gap. While the contribution of tourism to total services exports was 18.6% for the EU as a whole in 2019, this figure was over 40% for Southern European countries, even reaching 51.2% in Portugal **(Chart 5)**.

Furthermore, **tourism is an important contributor to job creation, given that it is a labour-intensive sector.** According to figures for the 2nd quarter of 2023 **(Chart 6)**, 5.2% of European employees work in tourism-related activities[6], while this proportion doubles in Greece. In Spain, they represents 9.5% of the total workforce, and just over 7% in Italy and Portugal.

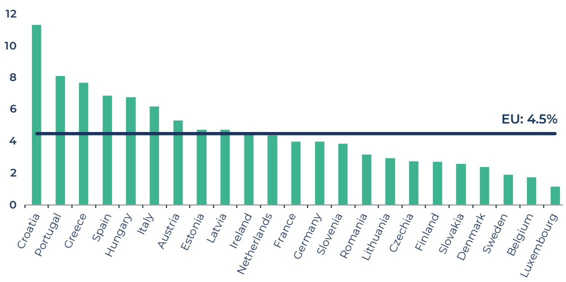
Long-term viability of tourism-led growth: trapped in a bad equilibrium?

More fundamentally, it is worth questioning whether such a high reliance on tourism is a sustainable strategy for long-term growth. A large and excessive contribution of this sector can lead to structural imbalances in the economy and increased vulnerability to exogenous shocks. In 2020, the GDP of Italy, Spain, Portugal, and Greece dropped by 8.5%, while that of the EU contracted by 5.6%. The pandemic has highlighted the need to diversify Southern European economies. These countries notably experienced a significant deterioration in their budget balances due to increased financial support from their governments to assist the most affected sectors, including tourism. The budget deficits of Italy, Spain, Portugal and Greece represented 9.5% of their GDP in 2020, compared with 6.7% for the EU.

The holiday could soon be over...

The scope for growth is therefore likely to be increasingly limited for the economies of the South, which are heavily dependent on tourism, given that the sector's growth prospects should moderate over the medium term, reflecting the return of normalized market trends as well as a gloomy economic and climatic context. **Looking ahead, it is not clear that the tourism boom has enough gas in the tank to continue being a protagonist in the European growth story. Multiple risks (macroeconomic, financial, social, and political)** persist on a global scale, affecting both host countries and foreign countries on which Mediterranean tourism heavily depends. During the first half of 2023, 53% of arrivals in accommodation establishments in Southern Europe were foreign tourists, compared with 38% at the EU level. Between January and September 2023, **the UK, France, Germany, and the Netherlands accounted for more than half of international tourism in Spain (Chart 7)**. Coface's outlook points to a prolonged economic slowdown in these main tourist-sending markets for Southern Europe, with growth forecasts for 2024 of 0.5%, 0.7%, 0.6%, and 0.8% respectively for the UK, France, Germany, and the Netherlands.

Chart 4 - Share of tourism direct GVA in total GVA in the economy, 2019 (%)



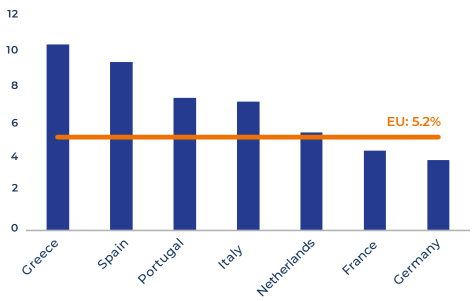
Sources: Eurostat, Coface

Chart 5 - Tourism statistics in 2019

Country	Share services in total exports	Share tourism in total exports	Share tourism in services exports
European Union	29.2%	5.4%	18.6%
France	33.2%	7.1%	21.5%
Germany	20.0%	2.3%	11.4%
Greece	55.3%	25.0%	45.3%
Italy	19.2%	7.8%	40.5%
Netherlands	26.9%	2.5%	9.2%
Portugal	38.1%	19.5%	51.2%
Spain	32.2%	16.4%	50.8%

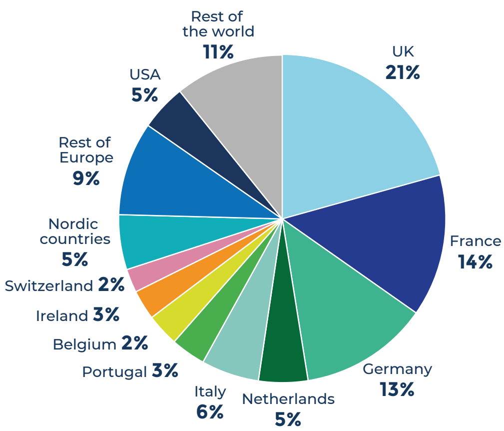
Sources: Eurostat, Coface

Chart 6 - Share of employed persons in tourist activities (%), Q2 2023



Sources: Eurostat, Coface

Chart 7 - Origins of international tourists in Spain, Jan-Sept 2023



Sources: Eurostat, Coface

5 - *"Tourism direct gross value added (TDGVA) is the part of gross value added generated by tourism industries and other industries of the economy that directly serve visitors in response to internal tourism consumption. A country's TDGVA mainly involves spending by domestic and foreign tourists within that country. However, it can also include value added created by local service providers, like airlines or travel agencies, for trips residents take abroad."* (Eurostat)

6 - Tourism here includes the NACE Rev. 2 activities:
- Air transport (H51)
- Accommodation and food services (I)
- Travel agency, tour operator and other reservation service and related activities (N79)

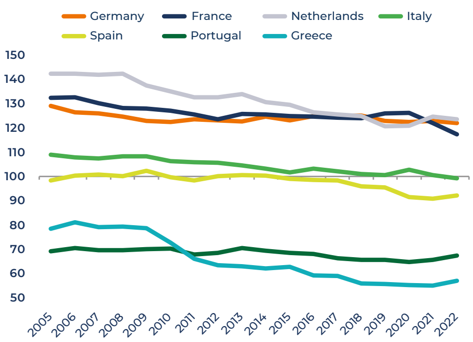
In an inflationary world, it will be difficult for Southern Europe to remain cost-competitive against up-and-coming destinations in the emerging world. Türkiye, for instance, has been winning some market share among Spain's first clientele, the Britons. The depreciation of the pound sterling against the euro, combined with the continued devaluation of the Turkish lira, has led British travelers to favor Türkiye over Spain. According to the latest report from the European Travel Commission[7] (ETC), arrivals from the UK increased by 43.4% in Türkiye during the first nine months of 2023 compared with the same period in 2019. On the other hand, they fell by 6.4% in Spain. In a broader way, although the sharp fall in purchasing power did not yet deter Europeans, it should continue to weigh on holiday affordability and household disposable incomes, thus impacting their travel demand and expenditures. If changes in travel habits of Europeans, and more particularly of Western European travelers with a higher purchasing power and spending profile, were to become established, this could significantly reduce tourism revenues of Southern European countries.

Last but not least, **climate change** is having a particular impact on the regions of Southern Europe, which are regularly exposed to high heat during the summer. Extreme weather events are gaining more importance as a criterion when it comes to choosing a holiday destination and period. A recent ETC survey[7] reveals that while weather conditions remain the main factor considered by European travelers when choosing their travel destination, 14% of respondents also mentioned extreme weather events as an additional concern, i.e. 7% more than in the May 2023 survey. This increase in concern about weather conditions follows on from this summer's record temperatures and the devastating fires in Greece, which led to the cancellation of numerous flights and the evacuation of tens of thousands of tourists on the islands of Rhodes, Euboea, and Corfu.

The tourism low productivity challenge and the culture of low added value

While Western economies are geared more towards highly skilled, high value-added activities, **the tourism specialization of Southern European countries leads to a persistent structuring of their economy around low value-added activities**. These monopolize relatively large amounts of resources (human, financial, and/or material) compared to the wealth they generate through the production of a good or service. We observe a **significant distortion in terms of productivity per hour worked (Chart 8)**, where Portugal and Greece have historically low levels, while in the case of Italy and Spain we see a gradual deterioration until they fall below the European average in 2022 and 2015, respectively.

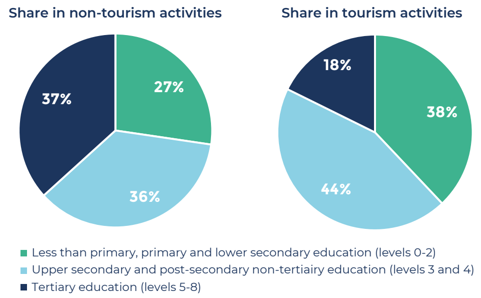
Chart 8 - Labour productivity per hour worked (EU average = 100)



Sources: Eurostat, Coface

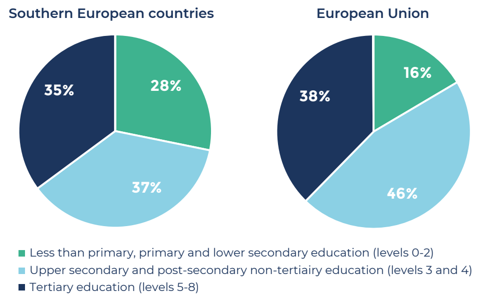
The importance of low value-added services in a country's economy, such as tourism, is also characterized by a **higher proportion of low-skilled labour.** Jobs in tourism-related activities[8] generally require less education, resulting in a larger share of employees with lower levels of education than in other sectors. For instance, only 18% of employees in the tourism industry have tertiary education, compared with 37% in all other sectors **(Chart 9)**. As tourism plays a substantial role in the economies of Southern European countries, this observation holds true for their entire workforce, which exhibits a less educated population than that of the overall EU, with 12% more people having no more than lower secondary education **(Chart 10)**.

Chart 9 - Relative level of education in tourism, Q2 2023, Southern European countries



Sources: Eurostat, Coface

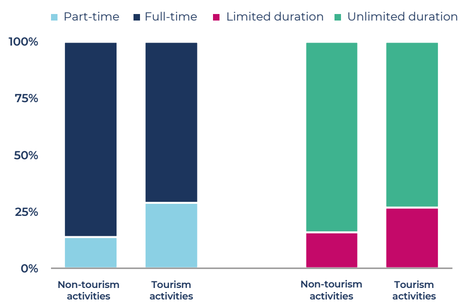
Chart 10 - Level of education in total activities, Q2 2023



Sources: Eurostat, Coface

In addition to a lower need for highly qualified profiles, tourism -related activities are also subject to seasonal demand. **An economy specialized in the tourism industry faces issues of precarious employment (Chart 11)**. Tourism activities employ more people on part-time contracts (29%) and contain a larger proportion of fixed-term contracts (27%) than the rest of the economy (14% and 16%, respectively). With lower job stability and fewer opportunities for long-term career development, labour turnover in this type of activity is all the more important. In particular, the pandemic has prompted numerous workers to flee to sectors with less uncertain prospects and/or offering better pay, thereby creating some difficulties in filling labour shortages.

Chart 11 - Job precarity in tourism, Q2 2023, Southern European countries

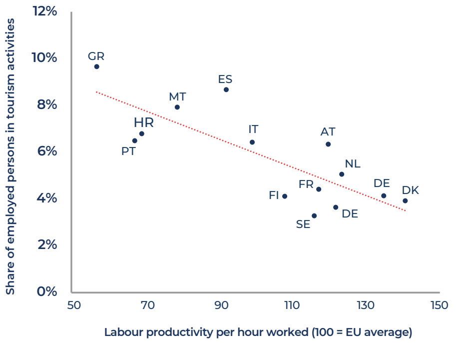


Sources: Eurostat, Coface

7 - https://etc-corporate.org/uploads/2023/11/ETC-Quarterly-Report-Q3_Public.pdf
8 - Tourism here includes the NACE Rev. 2 activities:
- Air transport (H51)
- Accommodation and food services (I)
- Travel agency, tour operator and other reservation service and related activities (N79)

We thus need to consider the opportunity cost of tourism reliance: the workers and funds that go into this sector do not go to other potentially more productive sectors. Indeed, when comparing Southern Europe with Northern and Western Europe, there is a noticeable correlation between a country's labour productivity and the importance of tourism in employment **(Chart 12)**. As a result, even though the growth of Southern European countries benefits from their tourism-led economies, it also has structural and economic consequences. **This specialization leads to a paradoxical situation, which can be likened to the "Dutch Disease" effect[9], in which seemingly good economic opportunities have a negative impact on a country's broader economy, which might jeopardize its long-term growth potential.** While countries benefit from large influx of "effortless" foreign revenues, they also experience a lack of productivity and industrialization/diversification with an overdevelopment of the tertiary sector. Tourism can thus impede the path for new development in other activities and decrease economic competitiveness.

Chart 12 - Importance of tourism and productivity: Southern vs Western/Northern EU



Sources: Eurostat, Coface

II. To beat its demographic headwinds, Italy needs women, foreign workers, and A.I.

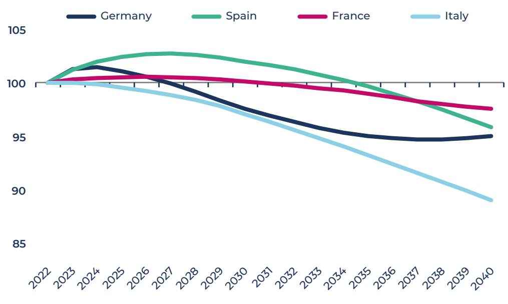
The problem of low productivity becomes all the more concerning when we factor in population decline. This is of course a challenge for Europe in general, but more so for Italy. According to Eurostat projections, under the current demographic patterns, **the working-age population between now and 2040 will contract by 11.7% in Italy; vs. 2.4% in France, 4.1% in Spain and 4.9% in Germany (Chart 13)**. This will translate into increasingly acute labour shortages that will constrain activity.
Indeed, how much an economy can grow in the long term is determined by the available quantities of production factors, capital and labour, and the efficiency with which they interact, i.e. total factor productivity. Though investment and structural reforms certainly help, this will only result in capacity underutilization in the absence of sufficient workers with the appropriate skills. Thanks to the EU's renewed appetite for industrial policy (as manifest in the EUR 191.5 billion allocated to Italy's Recovery and Resilience Facility), capital is no longer the limiting factor. The workforce, on the other hand, is already contracting, and is set to contract at an accelerating pace. Demographic trends are remarkably stable and not subject to rapid reversals. Does this imply that the Italian economy is condemned to stagnate under the weight of its shrinking labour force? Not necessarily, but avoiding this scenario **will need a strong effectiveness of elective migration and labour policies, and shifts in cultural patterns.**

There are several channels by which the contraction of the labour supply can be stymied or inverted. Authorities can look to increase the size of the worker pool by pushing up the retirement age, by attracting more workers from abroad (and retaining those that are tempted to leave), or, in the long run, increasing the fertility rate. Otherwise, it is also possible to incentivize the engagement of working-age individuals that prefer not to work, i.e. increasing the labour force participation rate. This can be done, for instance, through different measures to improve the incomes of workers (tax incentives, training and upskilling, wage subsidies), or facilitating flexible work, and more generally, work-life balance. In the short-to-medium term, boosting fertility and raising the retirement age are not actionable solutions, the first due to its back-loaded results, the second due to the already comparatively high retirement age of 67. Therefore, **migration, participation and productivity appear as the most promising levers to counteract the demographic drag on growth in the years to come.**

Foreign worker needs: not just a story of high-skilled labour

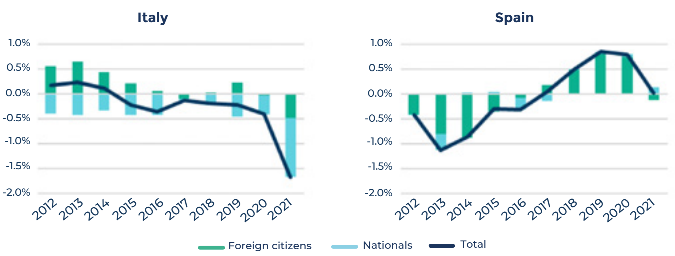
In the short run, attracting workers from abroad and preventing workers from leaving is the most expedient way to counteract the erosion of the labour force. Here, we see a diverging performance in recent years between Spain and Italy. **Chart 14** shows the evolution of the working-age population, broken down by the contribution of national and foreign citizens. Until 2015, the pool of foreign workers in Italy was growing fast enough to compensate for the decline in national workers, but since then it has faltered, resulting in persistent contraction of the working-age population. During the Eurozone crisis, the Spanish economy generated very little jobs and even incited many Spaniards to emigrate. But once the economy shifted back into expansion, this trend quickly reversed, and the working-age population grew on the back of strong migrant inflows. If we further break down the figures according to the level of education, **we notice that the contraction of the**

Chart 13 - Working-age population projections, Europop 2023



Sources: Eurostat, Coface

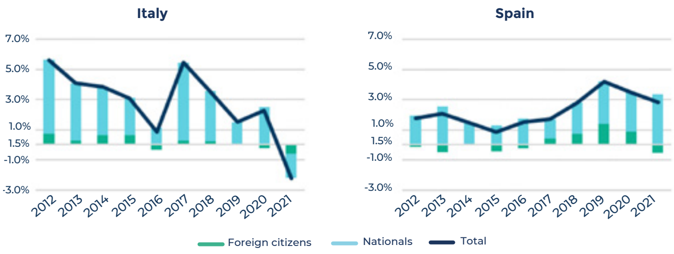
Chart 14 - Overall working-age population, YoY% change, breakdown by citizenship



Sources: International Labor Organization, Coface

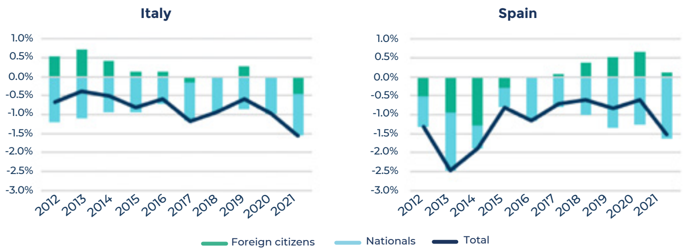
9 - See Inchausti-Sintes (2023), "Avoiding the Dutch Disease in tourism-led economies: reconciling tourism development and sectoral diversification" https://link.springer.com/article/10.1007/s10258-023-00243-4

Chart 15 - College educated working-age population, YOY % change, breakdown by citizenship



Source: International Labor Organization, Coface

Chart 16 - Non-college educated working-age population, YOY % change, breakdown by citizenship



Source: International Labor Organization, Coface

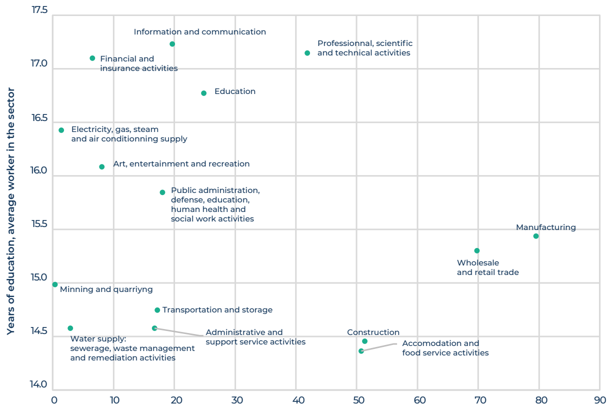
overall working-age population is being driven in both countries by the non-college educated worker pool. It appears indeed that the college-educated cohort is facing slowing yet positive growth in Italy[10], while the pool of educated workers has actually been growing in Spain thanks to positive contributions of both nationals and foreigners. It is among the non-college educated cohort that the effects of population decline is most visible. Between 2011 and 2021, the college-educated workforce in Italy increased by 35%, while the workforce without a college diploma contracted by 6%. Again, some of the contraction of the native worker pool in this cohort comes from rising levels of education across time, but the bulk of it is driven by relatively less-educated older nationals reaching retirement age. The in-take of foreign workers is here particularly insufficient to meet rollover needs.

In order to assess adequacy (and not only the size) of the worker pool, we must also consider excess demand for labour, as manifest by job vacancies. Indeed, beyond the simple qualified / non-qualified divide, the sectoral distribution of labour shortages sends signals about the specific needs of the labour market. In order to better quantify our different sectors' labour needs, we multiply the job vacancy rate by the sector's aggregate employment to get an estimate of job vacancies **(Chart 17)**. Manufacturing and retail (sectors with a moderately educated workforce), account for 19% and 17% of job vacancies, while construction and hospitality/food services account for around 12.5% each. **Overall, sectors with a relatively less qualified workforce (under the median of 15.4 years of education), account for 60% of job vacancies.**

The untapped potential of Italian women

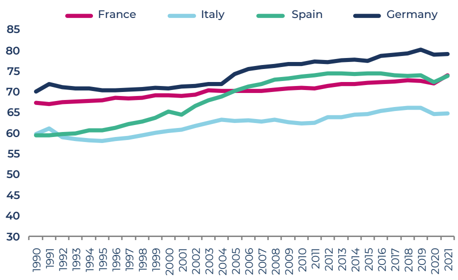
Concretely, to be part of the labour force means to be either employed or looking for work. Those who are of working age, but neither employed nor looking for work, are said to be disengaged. Therefore, addressing the depletion of the labour force involves incentivizing disengaged workers to join the job market, i.e. boosting the labour force participation rate. As shown on **Chart 18**, labour force participation rates diverge substantially across Europe, with Italy exhibiting a remarkably low level. Spain, which also historically lagged EU peers, underwent a noticeable convergence process driven by the boom years of the 1990-2010s. The gender breakdown of participation rates highlights **the crucial role played by the massive recruitment of women into the labour force.** Both Italy and Spain had a significant female participation gap vs. Germany and France in 1990, but while Spain had matched France's levels by 2010, progress in Italy has been markedly slower. Indeed, the male participation rate is quite close between Italy and France **(Chart 19)**, meaning that **the bulk of the aggregate gap between**

Chart 17 - Estimated job vacancies and average years of education by sector, Italy



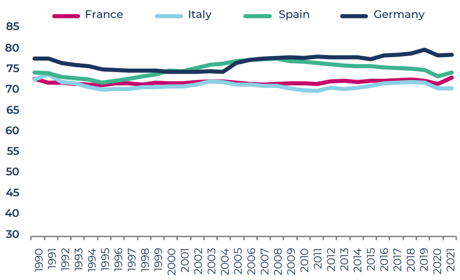
Sources: Eurostat, International Labor Organization, Coface

Chart 18 - Labour force participation rates (%), total working age population



Source: International Labor Organization, Coface

Chart 19 - Labour force participation rates (%), male working-age population

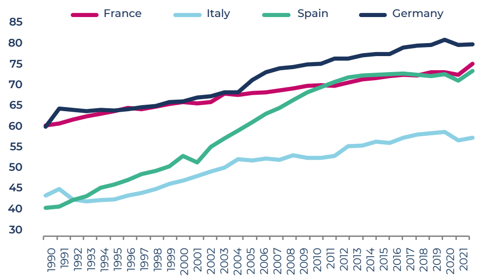


Source: International Labor Organization, Coface

10 - Save for 2021, but this might prove to be only a blip.

these two countries is attributable to Italy's remarkably low female participation rate (Chart 20).

Chart 20 - Labour force participation rates (%), female working-age population



Source: International Labor Organization, Coface

How can the participation gap be explained[11]? As highlighted by Carta (2019)[12], the time devoted by working-age women to unpaid work in the form of unpaid household chores and care work is particularly strong in Italy. According to ISTAT's time-use survey data, the ratio of daily time devoted to unpaid work by women compared to men is of 2.3, vs. 1.9 in Spain, 1.3 in France and 1.2 in Germany. An important contributor is the relative **deficit in early-childhood education services**, which compels a large number of Italian households to choose between parenthood and having a two-income household, usually at the cost of the mother's labour force attachment. Here, the North-South divide plays a crucial role **(Charts 21 and 22)**. Women's participation rates range from 34% in Puglia to 63% in Emilia-Romagna, and the share of infants under 3 years of age covered by childcare facilities is as low as 11% in Campania and as high as 44% in Umbria. In this discussion, it is important to note that GDP doesn't account for the value of activities unless they involve market transactions. As such, **it leaves out the value created by unpaid care and household work, which ISTAT estimates at around 34% of GDP[13]**. If this is so, then some very strong incentives will be needed to convince families that shifting to a double-earner household will be worth it.

Italy needs around a million extra working women (helped by some productivity growth) to achieve its growth and fiscal targets

For governments seeking to improve public accounts, the demographic challenge comes at a particularly inconvenient time. Indeed, after 3 years of waivers, the European Commission will re-introduce fiscal surveillance in 2024. The debt and deficit reduction commitments agreed with the Commission are a cornerstone of the legitimacy of the EU, but the demographic drag on growth puts them in jeopardy. Under the scenarios currently envisioned by the Commission for population and labour market trends, we expect that potential growth will be smaller than what is penciled into the government's macroeconomic scenarios[14] **(Box 1)**. However, the good news is that, at least over the next couple of years, the adjustments needed to correct course appear within reach.

Box 1: Estimating the effect of labour shortages on Italy's potential growth

How large of a drag of growth can we expect from a contracting labour force? To illustrate this, we need to use the concept of potential output. Potential output refers to the sustainable level of GDP that can be reached without straining the factors of production (thereby creating inflation). The rate of change in potential output is called potential growth. Potential growth is not an absolute limit on growth, as it is perfectly common for output to temporarily outstrip potential. However, this will put excessive strain on the inputs needed for production: workers demand higher wages as labour becomes scarce and they are asked to assume more responsibilities, productivity drops as scarce raw materials become more expensive, capital and liquidity dry up as central banks are forced to tighten policy. As this cost shock reduces purchasing power, demand slows down and brings down realized growth with it. This is why estimating potential growth is key for judging economic prospects in the medium-to-long term.

In practice, there is much disagreement on the proper way of estimating potential output. The situation of Italy is one where capital is expected to continue growing vigorously as the labour force contracts, based on forecasts by the IMF, Eurostat and Cedefop. Can growing capital compensate for an atrophying labour supply? The methodology used by the European Commission and the Italian government assume that it is comparatively easy to substitute workers with machinery and software[15]. However, a meta-analysis conducted by researchers from the Czech National Bank, Charles University in Prague, and the German Institute for Macroeconomics (IMK) argue that capital is, more often than not, a poor substitute for labour . Put differently, the loss of a worker is only very partially compensated by investing the equivalent of his/her cost in plant and equipment. As such, the potential growth estimates factored into the 2024-26 budget scenario can overstate the benefits of capital investment and understate the costs of population decline.

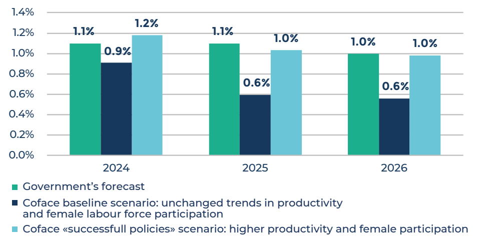
To account for this bias, we estimate potential output using a Leontief production function, augmented to account for productivity growth. Potential output (Y_t) is obtained by combining the capital and labour stocks (K_t and L_t). The technical coefficients, $A_{K,t}$ and $A_{L,t}$, measure the factor proportions needed per unit of output, and their rate of change captures the pace of productivity growth. Formally:

$$Y_t = \mathrm{Min}\left(\frac{K_t}{A_{K,t}}, \frac{L_t}{A_{L,t}}\right)$$

Using Eurostat's May 2023 population projections and the IMF's October 2023 forecasts for gross fixed capital formation, and assuming total factor productivity grows at 0.2% per year, our model gives us potential growth estimates of 0.9% in 2024, 0.6% in 2025 and 0.6% in 2026; below the government's expectations of 1.1%, 1.1% and 1%, respectively.

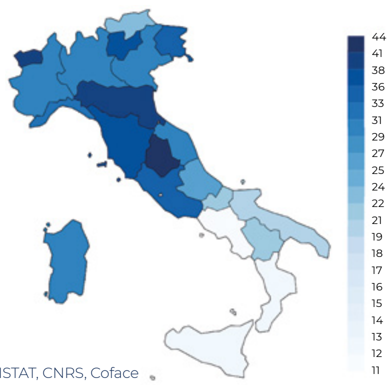
In the "successful policies" scenario, we assume that elective migration policies stay on the same comparatively open trend, that measures to encourage women to join the labour force succeed in boosting the participation rate by an additional percentage point per year (compared to Cedefop forecasts), and that the combination of structural reforms and investments undertaken, among others, as part of the Recovery and Resilience / Italia Domani plan are successful in unlocking productivity growth on the order of 0.5% per year (vs. the 0.2% pace of recent years).

Chart 23: Potential GDP growth estimates, Italy



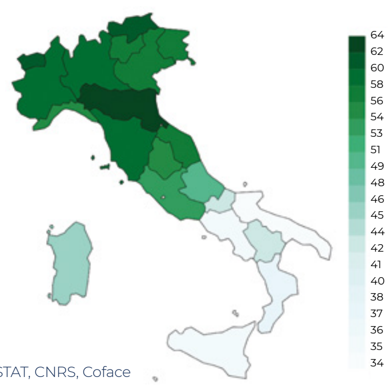
Sources: Coface estimation based on data from EC AMECO database, IMF, Eurostat, Cedefop, Refinitiv Datastream

Chart 21 - Place in early childhood education facilities per 100 children under 3 years of age



Source: ISTAT, CNRS, Coface

Chart 22 - Female labour force participation rates (%)



Source: ISTAT, CNRS, Coface

11 - For a recent overview of the topic, see "Tackling gender gaps in the Italian labour market: Evidence and policy implications"
12 - Carta F. (2019), "Female parental leave labour supply in Italy: the role of and child care policies", Bank of Italy, Occasional Papers, N. 539, December 2019
13 - ISTAT (2019), "Times of daily life: Work, work-life balance, gender equality and well-being"
14 - As specified in the 2024 Draft Budgetary Plan
15 - In technical terms, they assume a Cobb-Douglas specification for potential output

Namely, an additional 1.2 million workers added to the workforce coupled with 0.5% productivity growth per year, would be enough to achieve the government's potential growth objectives. Around 200,000 of these workers are provided for by the recent decision to ramp up the emission of permits for non-EU workers from 82,000 per year to 136,000 in 2024, 151,000 in 2025 and 165,000 in 2026. This leaves a gap of 994,000 domestic workers which, in the absence of a reversal of the stagnation trend in male labour force participation, would have to be filled by women joining the formal labour force. This would amount to a female participation gain of around 1.1 pp per year, something the country had achieved consistently in the early 2000's, and sporadically in the late 2010's.

Women's work is the policy lever being targeted most seriously and ambitiously by public policy, as manifest in the EUR 4.6 bn earmarked to finance the building of 264,480 pre-school places by 2025 as part of the Recovery and Resilience Plan, the waiver of nursery fees for second children and the strengthened reduction of the tax wedge for mothers included in the 2024 budget. On the migration front, concerns that the rightward shift in Italian politics would impede boosting elective migration seem, for the moment, not to be bearing out. The expansion in work permits has not translated into electoral costs for the governing coalition, with their combined share of the voting intention staying stable at around 45%. This suggests that stronger efforts to curb illegal migration and to secure concessions from the EU on asylum system reform are satisfying their base's expectations on this issue. It remains to be seen whether the country is ultimately successful in attracting enough foreign workers with the desired skills, but here, as in other areas, the government has shown a willingness for pragmatism. In any case, time will reveal the extent to which the current policy push for family-friendly and gender equality policies succeeds in unlocking the untapped potential of the female workforce. In the best-case scenario (a Spain-style sharp and fast compression of the gender participation gap), potential GDP growth could accelerate well beyond what we have contemplated in our simulations.

Still, the decision to work and attitudes to family models are not only shaped by economic incentives, culture and history play an important (and hard-to-quantify) role. We nonetheless judge that a noticeable acceleration in female workforce participation is plausible. Beyond that, it should also be noted that, while the participation gap vs. neighboring countries is particularly striking for women, it is also noticeable for men **(Chart 19 - see page 6)**. This suggests that the wages paid in Italy (both for men, and, even more so, women) are too low to discourage workers either from living on welfare benefits, or from informal economic activity (be that household management or the black market). For wages to grow without sacrificing competitiveness, productivity has to grow. And for productivity to grow, so must the share of activity and employment devoted to higher-added value sectors, whose reach should expand from the North to the South. This would also allow to curb the trend in brain drain of educated young Italians, and attract skilled foreign workers. Absent a successful industrial and regional diversification of the economy, and a mass transfer of women from the informal to the formal economy; looser immigration policies (including an increased intake of less qualified workers) will be needed to offset the inevitable costs of population decline.

A.I. and population decline: a match made in heaven?

Even if Italy succeeds in matching the participation and fertility rates of its neighbours, it will be a matter of years before the demographic problem re-emerges. Any long-term solution to population decline will involve large-scale efficiency gains. This is no small feat; none of the technological breakthroughs of the last four decades have managed to reverse the declining productivity trend observed since the 70's oil shocks[16]. However, there are high hopes that generative A.I. will finally prove the exception. According to research by The European House-Ambrosetti and Microsoft Italia[17], the Italian economy could be generating up to 18% more GDP (the equivalent of Lombardy's GDP) if it exploited all possible A.I. use cases.

However, they also stress that, to reach such levels of adoption, significant human capital investments are needed: 137,000 ICT professionals to manage implementation, and upskilling 3.7 million workers to close the gap in basic digital skills. Furthermore, this push for productivity will have to be balanced with a concern for safety (both at the level of firms and wider society), and workers' concerns about job displacement. A.I., after all, is not a panacea. A country with more elderly people, wanting both more children and more women in the workforce will have a growing need for care workers, a job with limited scope for automation. Conversely, if the fear is that A.I. will lead to more job losses than gains and thus lead to social unrest, population decline may allow for a smoother adjustment of the job market[18], with lower levels of transitory unemployment compared to countries with a more vibrant demography.

16 - Sebastian Gechert & Tomas Havranek & Zuzana Irsova & Dominika Ehrenbergerova, 2019. "Death to the Cobb-Douglas Production Function? A Quantitative Survey of the Capital-Labour Substitution Elasticity," Working Papers 2019/8, Czech National Bank. In technical terms, the empirical elasticity of substitution between capital and labour is closer to a "perfect complements" Leontief production function (where you need both an increase in capital and labour to increase potential output) than to a Cobb-Douglas production function. Over a sample of 3,186 estimates in 121 studies, they find a mean elasticity of substitution of 0.3. 18 - This is the well-documented "*Solow Paradox*"

17 - "*AI 4 Italy: Impacts and Prospects of Generative Artificial Intelligence for Italy and Made in Italy*" The European House – Ambrosetti, Microsoft, 01/09/2023

18 - Assuming that said decline is driven by workers with a highly automatable set of skills, and that workers with non-automatable skills are available.

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