



THE CHEMICAL INDUSTRY IN ITALY: SITUATION AND OUTLOOK

FEBRUARY 2025

WORLD ECONOMY CONDITIONED BY NEW US POLICIES IN A CONTEXT OF STRONG COMPETITIVE PRESSURES

In a polycrisis scenario, the world economy avoids recession - thanks to the resilience of services - but shows persistent weakness in manufacturing, which is more sensitive to the many factors of uncertainty in a framework of widespread geopolitical tensions. World trade, affected by the new wave of protectionism, is not expected to strengthen significantly (2.4% in 2025 from 2.3% in 2024) and the world economy will slow down overall (2.8% after 3.1% the previous year).

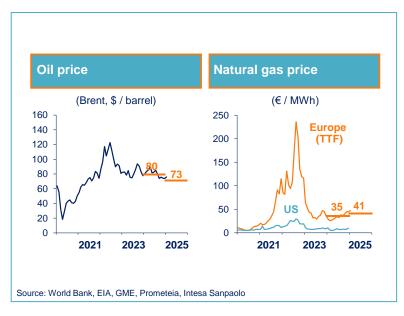
US policy is set in a context of strong competitive pressures. China - as a result of the real estate crisis - is experiencing a persistent weakness in domestic demand, which is not very responsive even to the imposing support measures (mainly aimed at financial consolidation). As a result, growth is expected to slow further in 2025 (4.1% from 4.8% last year). The Asian giant is reacting to the new tariffs by means of retaliatory trade measures, direct production investments abroad and triangulations to circumvent the barriers. China's oversupply is reflected in aggressive export pricing policies that result in loss-making operations for many companies, including those in the chemical sector, in the presence of widespread subsidies.

LIMITED IMPACT OF GEOPOLITICAL TENSIONS ON ENERGY COSTS, BUT EUROPEAN VULNERABILITY REMAINS

The intense conflict in the Middle East (also related to the control of gas, a key fossil source for the transition) is having a limited impact on energy costs, despite the presence of a sensitive target such

as the Strait of Hormuz through which more than 25% of the world's oil and gas trade passes.

Although European demand remains subdued (with the industrial component declining) and supply adequate, the price of gas has risen significantly in recent months due to a harsh winter aggravated by the discontinuation of renewables, the interruption of Russian flows through Ukraine, and the new US sanctions on Russia.



In the absence of further tensions

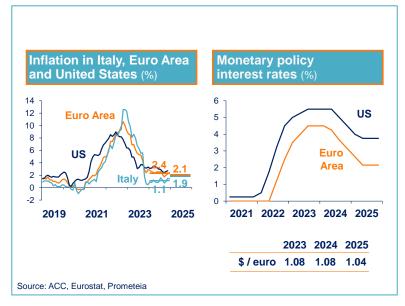
caused by the need to replenish storages for the coming winter (currently at levels 16 % points lower than last year), the European price of natural gas is expected to be slightly above 40€/MWh in 2025, up from the 2024 average (35€). The oil price, also recently subject to increases, is expected to be around \$75 in the presence of production cuts by OPEC+ offset by continuously expanding non-OPEC production.

IN EUROPE THE INFLATIONARY CRISIS IS BEHIND AND INTEREST RATE CUTS WILL CONTINUE

In the Eurozone, the price surge is behind, and inflation is expected to return progressively in line with the ECB's target (2.1% in 2025 after 2.4% in 2024). In Italy, although growing, it will continue

to be lower than the European average (1.9% in 2025 from 1.1% last year) in the presence of a more moderate wage dynamic. In the United States, on the other hand, inflation will be more persistent, fuelled by resilient consumer spending and, looking ahead, by tariffs and immigration constraints that will limit labour supply.

Consequently, the ECB will be able to continue to cut interest rates more decisively than its US counterpart, with a positive impact on public and private financing costs.



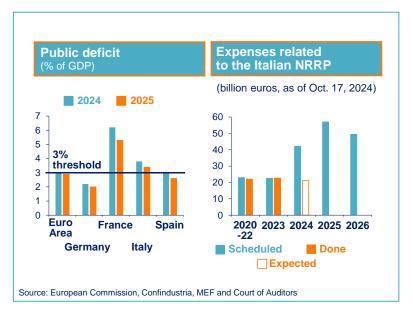
In this context, the strengthening of the \$ against the euro reflects, on the one hand, the divergence in monetary policy and, on the other hand, the more solid growth prospects in the US. The euro/\$ exchange rate (2025 forecast of \$1.04 compared to \$1.08 in 2024) will help support the competitiveness of European and Italian goods, also offsetting (at least in part) possible US duties.

AT A TIME OF HIGH INVESTMENT NEEDS AND FISCAL RESTRICTION, THE IMPLEMENTATION OF THE NRRP WILL BE DECISIVE

Faced with massive investment needs for the twin transition (ecological and digital) and competitiveness, the reactivation of the renewed European budget rules will lead almost all major EU countries — including Italy — to implement moderately restrictive fiscal policies.

The only major country with fiscal room is Germany which is, however, constrained by the 60% public debt brake enshrined in the constitution.

The outcome of the German elections in February will be decisive



for embarking on a less austere fiscal policy at national level and, possibly, opening new forms of financing at European level as well.

Italy – despite having a high public debt – is benefiting from good revenue and spread trends, unlike France, whose deficit is expected to remain above 5% of GDP in 2025 (compared to 3.4% forecast at national level). Italy is also the largest beneficiary of Next Generation EU funds and – in terms of share of targets achieved – is performing better than the EU average (37% vs 23%). At the same time, only 30% of the total resources have already been spent, which highlights some difficulties in implementing projects that still represent a significant stimulus for the economy and growth potential.

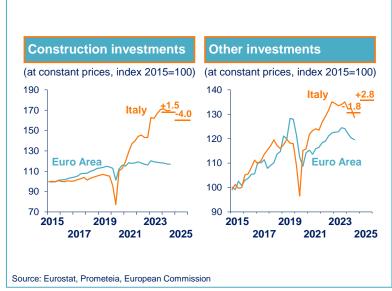
As highlighted by the Letta and Draghi reports, supporting the ecological transition requires shared European solutions to use public resources more efficiently (fragmentation is estimated to lead to a 30% loss) and to prevent national interventions from exacerbating competition between European countries instead of increasing that of the continent as a whole. **Europe's need for additional investment is estimated by the Draghi report at 4.4% of GDP per year, compared to an NGEU of 0.8%.** In the context of the new EU legislature, it will be relevant whether it will be limited to actions of greater coordination between countries or genuine integration (starting with key sectors such as the energy market) and whether new forms of common financing will be made available.

IN 2025, MODEST BUT STABLE GROWTH IN ITALY

In the post-pandemic, investments in Italy grew more than in the Eurozone not only thanks to the boom in residential construction (linked to the Superbonus), but in all components also supported by the NRRP and 4.0 incentives.

Construction – after closing last year with further growth of 1.5% thanks to the tail end of the incentive effect concentrated in the first half of the year – will contract in 2025 (-4%) despite the expected expansion of public works.

Other investments (capital goods and intangible assets) are, on the other hand, expected to recover moderately (2.8%) after the drop in 2024 (1.8%) amplified by companies' wait for less restrictive credit

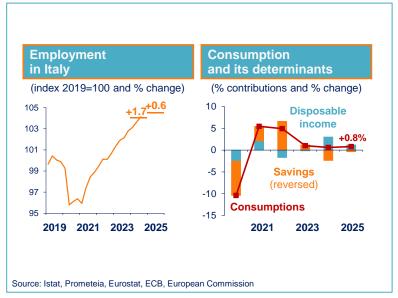


conditions and the difficulties in implementing Transition 5.0 incentives.

Employment maintains a very favourable trend (+1.7% in 2024) and – despite the expected slowdown in 2025 (+0.6%) – levels will remain high.

Enterprises will continue to experience widespread **difficulties in finding labour** due not only to a skills mismatch, but also to demographic factors that will tend to worsen in the coming years.

The gradual rise in wages and the recovery of disposable income will continue during 2025, after the setbacks suffered in 2022-2023, despite the simultaneous normalisation of inflation towards 2% (from 1.1 % in the previous year). In addition, the latest Budget Law confirmed the tax cuts for lower- and middle-income earners affected by a price level that remains well above the levels before the inflation shock.



In this context, private consumption

- held back in 2024 by the need to replenish savings - is expected to strengthen slightly (+0.8% after +0.6% in the previous year), thanks also to the stabilisation of the savings rate.

Public consumption – in the light of budgetary constraints – will gradually slow down (+0.5% in 2024 followed by +0.3% in 2025).

Although in a context of great uncertainty and provided that the US does not introduce generalised duties on European goods, the reactivation of international and European demand in 2025 will see **exports** of goods recover moderately (+1.8% from -1.4% in 2024). Imports will also expand (+2.2%), after the previous year's sharp contraction (-3.4%).

Against a backdrop of profound uncertainty in the global economic framework and characterised by the difficulties of two strategic partners

	2023	2024	2025	2025 vs 2019
GDP	0.8	0.5	0.5	4.4
Private consumption	1.0	0.6	8.0	1.5
Public consumption	1.9	0.5	0.3	5.2
Construction investments	15.0	1.5	-4.0	31.9
Other investments	2.3	-1.8	2.8	47.5
Exports of goods	-0.9	-1.4	1.8	16.7
Imports of goods	-0.9	-3.4	2.2	17.8
Inflation	5.9	1.1	1.9	20.9
Employed	1.9	1.7	0.6	4.4
Household disposable income	-0.2	3.0	1.2	1.8

such as Germany and France (GDP forecast at 0% and +0.4% respectively), Italy benefits from a situation of relative economic and political stability that will allow for modest but stable GDP growth in 2025 (+0.5% in 2025 as in the year just ended) supported by progress in the implementation of the NRRP, but without any renewed momentum.

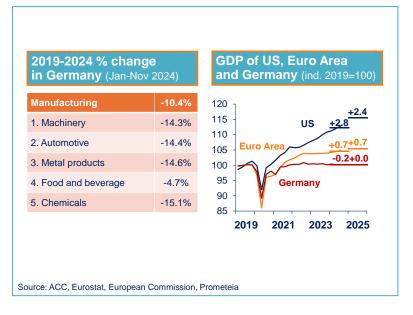
ITALIAN INDUSTRY IN PARTIAL RECOVERY BY 2025, HELD BACK BY EUROPEAN STRUCTURAL WEAKNESSES

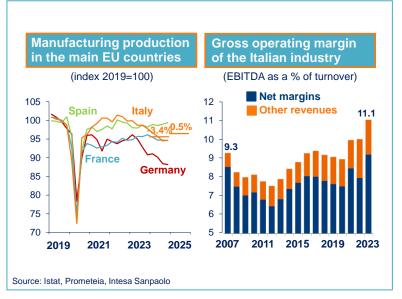
After the Eurozone's modest growth in 2024, the economic outlook for 2025 (expected GDP growth of 0.7%) is penalised by an industry whose orders, both domestic and foreign, continue to remain weak. Germany - with its economy practically at a standstill since 2021 - affects the entire Eurozone and contributes to an increasingly worrying GDP growth gap with the US. The improvement in macroeconomic conditions (falling inflation and interest rates) is being held back by European structural weaknesses in an international framework that is no longer as cooperative as in the past.

the outlook In particular, for **European manufacturing remains** conditioned by a competitiveness crisis with Germany as one of its main epicentres. German production in 2024 was 10% lower than prepandemic, with four out of five of the main sectors showing declines of more than 14% (including chemicals). The February elections will be central in order to implement supportive economic and industrial policies.

In this context, the outlook for Italian industry does not go beyond a modest recovery (+0.5% in 2025) after the -3.4% in 2024.

The domestic industry shows significant strengths and opportunities, starting with a highly diversified structure and characterised by overall sound economic-financial conditions: the gross operating margin in 2023 has, in fact, reached an all-time high (11% of turnover).





THE FALL IN CHEMICAL PRODUCTION IN ITALY IS HALTED, BUT NO SOLID RECOVERY IN SIGHT

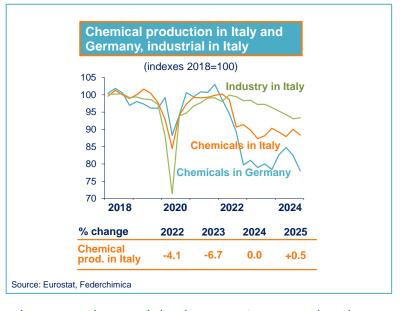
The chemical industry – with a turnover of 67 billion euros and more than 112,000 highly qualified employees – is the fifth largest industry in the country and Italy is the third largest European producer after Germany and France.

The chemical industry plays a strategic role that can be likened to that of a technological infrastructure: products essential are components 95% of of manufactured goods, be they for everyday use or functional in applications central to the ecological transition such as batteries, wind turbines or solar panels. Every year, the sector invests over 670 million euros in R&D and ranks first in terms of the share of companies investing in eco-sustainable technologies and products (source: GreenItaly Report).

The numbers of chemicals in Italy		
(year 2023)		
Value of production (billions of euros)	67.4	
- of which exports (billions of euros)	39.8	
Companies (number)	2.834	
Employees (thousands)	112.7	
Investments in R&D (millions of euros)	677	
R&D personnel / employees	8%	

After two years of decline (-4.1% in 2022 followed by -6.7% in 2023), chemical production in Italy experienced a stabilisation in 2024.

The hoped-for improvement in industrial demand did not materialise. On the contrary, all customer sectors contracted, with the exception of FMCG (Fast Moving Consumer Goods), paper electrotechnics, with particularly heavy falls in fashion and automotive (also affected by increasing import penetration). After the boom of the



previous years, the boost in construction has petered out and the downturn is expected to sharpen despite the positive momentum in public works.

Forecasts for 2025 do not foreshadow a significant strengthening of chemical activity in Italy (+0.5%) in the presence of expectations of improvement relying mainly on the second half of the year in a framework fraught with risks and intense competitive pressures. In a global context of overcapacity, penalising energy costs in international comparisons and burdens associated with the mass of new regulations under the Green Deal are leading to rationalisations in European base chemicals corresponding to about 11 million tonnes (or 3% of reference production). For Italy, a

relatively resilient factor is its specialisation in speciality chemicals (sectoral production share of 57% compared to 37% at EU level).

A SIGNIFICANT RECONFIGURATION IS TAKING PLACE IN THE CHEMICAL SUPPLY CHAIN

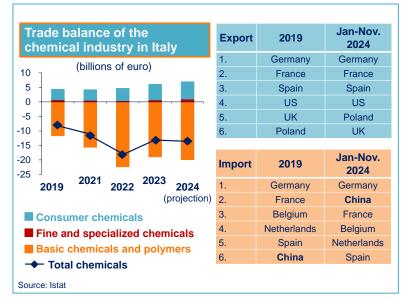
Overall, chemical exports show a moderate increase (+1.5% in value in the first 11 months of 2024, with a more sustained increase in volumes), but with uneven trends. They recover in Spain (+4.3%) and Germany (+1.5%), suffer a downward correction in the US (-0.2%) and confirm a marked contraction in China (-6.9%).

Geopolitical tensions and trade barriers, the energy crisis and environmental policies are fuelling a significant reconfiguration of trade flows within the chemical supply chain.

The trade balance - although coming back from the negative peak of 2022 - stopped its improving

trend in the presence of strongly diversified trends along the supply chain related not only to market demand but also to energy cost sensitivity. In fact, against the heavy burden in basic chemicals, fine and specialty chemicals saw a slight improvement and the surplus in consumer chemicals (cosmetics and detergents) strengthened.

The US are the fourth largest destination market for Italian chemicals with exports worth almost 3 billion euros. At European level, the bilateral trade surplus reaches 6



billion. The dreaded 10-20% tariff increase by the US Administration would more than double this and it is important for the EU to negotiate to avoid this threat materialising.

The greatest danger, however, concerns the huge duties announced on Chinese products, which would lead to a reorientation of exports towards the European market, aggravating the already intense competitive pressure. In the aftermath of the energy crisis and despite coming back from peaks, China has established itself as the second largest foreign supplier with a share of imports reaching 16% compared to 5% in 2019. This shows how penalising competitive conditions for chemicals, both Italian and European, entail not only a serious loss from an economic and social point of view, but also a setback in terms of environmental protection, as they inevitably translate into more imports from countries with lower standards and fewer guarantees.

COMPETITIVENESS IS CONDITIONED NOT ONLY BY MARKET DYNAMICS, BUT ALSO BY POLITICAL CHOICES

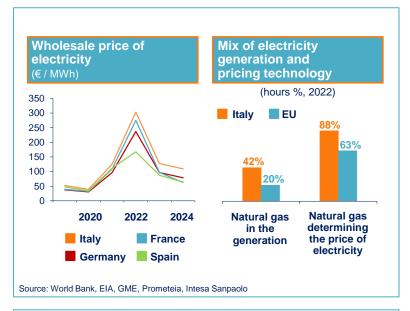
The competitiveness of the chemical industry is strongly influenced not only by an already challenging market environment, but also by policy choices at European and national level.

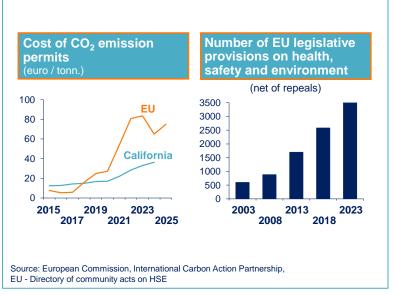
Among the various factors, the cost of energy remains central. Chemistry is among the most sensitive sectors as it uses fossil sources (oil and natural gas) both for energy purposes and as raw materials and, in the light of available technologies, their complete replacement is not feasible. Italy – in addition to being affected by gas prices at levels more than four times higher than those in the

US, subject to upward risks and again under pressure in recent months – is also affected by wide electricity price differentials vis-à-vis other European producers: in 2024 the average electricity wholesale price was €109/MWh compared to around €60 in France, which benefits from nuclear power, and Spain, where the electricity price is no longer pegged to the marginal price of gas.

This penalisation does not depend only on the greater weight of gas in the Italian energy mix (42% compared to the European average of 20%). In fact, as highlighted by the Draghi Report, the price formation mechanism in Italy entails a cost of electricity determined by gas (the most expensive source) in 88% of annual hours against a weight in electricity generation of less than half. The decoupling of gas and electricity is necessary so that users can actually benefit from the lower costs associated with renewables.

A further extra burden lies in the cost of CO₂ emission permits under the ETS (Emission Trading Scheme): for





European production, this cost is always tending to rise as a result of the acceleration of decarbonisation targets and, in 2024, was almost double that of California, one of the few areas in the world with a similar system. Overall – between direct and indirect costs for CO₂ emissions – the chemical industry pays more than 600 million euros in one year, a burden close to all R&D expenditure in the sector that is not borne by non-EU producers.

The European trend towards over-regulation – suffice it to say that since 2018, more than 1,000 pieces of legislation have been introduced at EU level in the area of safety, health and environmental protection alone – fuels uncertainty, hampers business operations and curbs new investments.

FIVE PRIORITIES FOR INDUSTRIAL POLICY

1. Energy available at competitive costs

Policies are needed to ensure quickly access to a competitive supply of energy, including natural gas during the transition and adequate availability of decarbonised energy. Electricity must be available at no higher cost than in other European countries: a single European electricity market should be created for this purpose. In Italy, the Electricity Release - aimed at making electricity available at reduced costs to energy-intensive companies - must be made operational quickly, and the decoupling of electricity and gas prices for industrial customers is equally urgent.

Support schemes for cogeneration plants should be reviewed (also to allow the use of green gases) and support and development measures should be introduced on CO₂ capture and storage, where Italy has great potential for the entire Mediterranean basin.

Italy's role as an energy hub for southern Europe – for gas, CO₂ storage and renewables – should also be enhanced in a strategy that also includes new-generation nuclear and fusion power in the medium term. The exploration and exploitation of new gas fields in the areas around the peninsula and in the Eastern Mediterranean must be resumed decisively, increasing the supply via pipeline.

2. Strengthening funding for the ecological transition of chemistry

Chemicals, upstream of several value chains, must be accompanied in the ecological transition without being burdened by continuous regulations and constraints that generate unsustainable asymmetrical costs compared to international competitors. The criticalities in upstream chemistry and the loss of competitiveness, which is difficult to recover, require the adoption of incentive policies also aimed at facilitating the transformation into new, more competitive value chains.

The green transition of chemistry requires both investments in new enabling technologies (such as chemical recycling, biotechnology and products from bio and renewable sources, hydrogen and electrochemistry, CO₂ recovery and reuse), and investments in areas of continuous innovation (primarily in energy efficiency and self-production, circularity and eco-design of products, environmental sustainability and digitalisation). However, one must be aware that the new technologies are not yet mature and able to meet market demand in the short term on economically competitive and technically feasible terms on a large scale. According to estimates by The European House Ambrosetti – based on the evaluations reported by the European Commission in the 'Transition Pathway for The Chemical Industry' – the green transition of the chemical industry in Italy will require almost 20 billion additional investments by 2050 (40% more than the average for the period 2016-2020) and, also considering operating costs, more than 30 billion. Clearly, these costs cannot be borne solely by companies in the sector.

In order to support the decarbonisation of chemistry, it is necessary to strengthen the financing of transition projects, starting with the allocation of ETS (Emission Trading Scheme) revenues from CO₂ emission permits. Offsets for the indirect costs of CO₂ should also reach in Italy the maximum limit of 75% allowed by law, as is the case in other major European countries. The Draghi Report also

highlights the various critical issues in relation to the Border Carbon Adjustment Mechanism (CBAM), which is intended to prevent carbon leakage, i.e. the relocation of production to countries with less restrictive environmental regulations. Among the problems identified are the disadvantage for EU exporting companies, the complexity of the instrument and the risks of circumvention, also in light of the difficulties of verification. As a review of the CBAM is scheduled for 2025, its effectiveness should be carefully assessed considering the postponement of the reduction of free ETS allowances, currently allocated to protect European industries from the risk of carbon leakage.

3. A regulatory system more favourable to investment and technological innovation

The chemical industry is probably the sector most affected by the huge mass of new legislative initiatives, directives and regulations related to the Green Deal. It is essential that the regulatory framework be defined with ambitious but realistic objectives, respecting the principle of technological neutrality, i.e. keeping the way open for multiple technologies, thus allowing the best solutions to be identified according to the countless application needs, also in relation to the specificities of individual countries. Effective controls are also needed on substances and articles imported from outside the EU.

Any restrictions on the use of substances must take into account the capacity for effective risk management, the multiplicity of uses (sometimes precisely for health, safety and environmental protection purposes) and the difficulty or impossibility of identifying valid alternatives.

At the Italian level, it is necessary to avoid additional restrictions with respect to European regulations, to define single texts and disseminate guidelines on interpretation and application, and to provide for an adequate supply of specialised technical personnel at the competent authorities. The prospect of certain timeframes for authorisation processes is an essential precondition for investments and is therefore a priority for businesses and for development.

4. Stimulating demand for environmentally sustainable chemicals and concrete actions in favour of the circular economy

Public and private demand for innovative eco-sustainable products (such as circular, renewable and low-carbon chemicals) should be stimulated by encouraging the recognition of a "green premium" against higher costs. The assessment of eco-sustainability must be based on scientific criteria, taking into account the entire life cycle. Incentive measures are clearly preferable to punitive measures against previous-generation products (or processes).

Italy has a particularly promising position in circular and biomass chemistry. A true European Single Market for circularity must be created, overcoming applications and interpretations of waste legislation that are currently uneven between Member States. In order to favour the realisation of circular economy and industrial symbiosis projects, it is necessary to correct the Italian legislation on waste, which is particularly complex even in comparison with other EU countries.

5. Promotion of vocations in chemical disciplines and new skills

Also in the light of the growing difficulty in finding human resources with adequate skills, which are indispensable for a highly specialised sector such as the chemical one, training plans – public and private – for green and digital skills must be promoted, also through fiscal incentives. It is also necessary to increase the opportunities for young people to be oriented towards scientific disciplines, including through teacher training and collaboration between businesses and the world of education at all levels (from primary school to technical and university education).

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