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Executive summary

FY 2024 has started with many unresolved issues, still weighing on corporates credit risk profile; first of all, the global geo-political situation still reflects persistent tensions in several parts of the world, with specific focus on the developments in Ukraine and the Middle East. Secondly, the depressed business confidence showed in 2023 due to weak demand, high interest rates and inflation is still impacting business activity in this first quarter of 2024. In fact, the credit risk for Italian non-financial corporates as of December 2023, expressed by the default probability, stood at 6.22%, a figure sensibly higher than pre-COVID-19 levels.

The purpose of this work is to provide an estimation of the probability of default for 2024 through a quali-quantitative approach, further explained in the following sections.

In order to better represent the potential evolution of credit risk in 2024 across multiple alternative developments, a three-scenario forecast framework has been enforced.

On a baseline scenario assumption, we expect geo-political tensions to persist but spillover risks to be manageable; in the first half of 2024, the economic activity is expected to remain subdued as high funding costs remain a drag on consumer spending and corporate performance. Nonetheless, in the second half of 2024, a diminishing inflation, interest rate cuts and a firm job market would lift business confidence and personal income, paving the way for a light decrease of credit risk. Accordingly, the forecasted credit risk for Italian non-financial corporates is expected to reach a level of 6.13%, a touch lower than 2023 level (6.22%) that already incorporated most of the challenges and complexities surrounding Italian non-financial firms. The forecast highlights a very differentiated output depending on sector and size: sector-specific challenges and mitigants contribute to amplify the results' dispersion with tourism and energy among the sectors showing the largest PD contraction. On the flip side, some manufacturing sectors like textile and furniture, and agriculture are expected to show further increase in credit risk.

Alternatively, in the intermediate scenario, the PD is expected to be equal to 6.39% as the scenario incorporates a worsening of the current economic conditions, a potential escalation of the conflicts in place, a procrastination of rate cuts by ECB due to sticky inflation and delays in the NRRP implementation. Finally, in case of an extremely severe scenario (hard scenario), characterised by extensions of the conflicts to new countries, stagflationary environment both in the US and the EU, higher interest rates and the stop of the NRRP disbursement, the projected PD would reach 6.82%, resulting in a strong deterioration of credit quality and a sensible migration of the rated entities towards the lower rating classes.

This full research paper has been drawn-up in collaboration with LUMSA University, that has contributed to the literature review and the mapping of academic references.

Introduction

Cerved Rating Agency's Credit Outlook aims to analyse the expected credit risk for Italian non-financial corporates (NFCs). To do so, the Agency performed a multiple-scenario forecast exercise based on the observed portfolio consisting of more than 14.000 entities having an outstanding credit rating issued by Cerved rating Agency. The sample is considered to be a fair representation of the Italian non-financial firms' universe in terms of sectors, geographical distribution, and size distribution. The output of the research is a qualified opinion of the default risk's evolution for Italian NFCs over the following twelve months, expressed in terms of probability of default. Furthermore, exploiting the granular information of the Cerved Group database, the document provides an in-depth estimation of default risk by size, sector and geographic area.

A qualified analysis of the evolution of corporate credit risk is an attempt to meet several stakeholders' needs. Indeed, a forward-looking estimation of the credit risk profile of NFCs is key for financial institutions which exploit external ratings for regulatory purposes from ECAI, given that a deterioration (improvement) of the credit quality in banks' assets implies greater (lower) capital requirements.

Moreover, corporates exploit high quality, forward-looking outlooks of credit profiles to assess the counterparts' credit risk. The credit outlook also represents the epitome of what regulators require of rating agencies; that is, to serve as a knowledge hub which researches how to best assess the development of credit risk, timely monitoring the numerous macro- and microeconomic factors which affect it.

Furthermore, the projections on corporates' default risk provided by the Credit Outlook offer a professional opinion for investors, providing key information to operate in financial markets.

Surveying the Literature

A vast strand of the economics and finance literature addresses how credit risk is affected by macroeconomic and geopolitical factors, which have greatly deteriorated in recent years. In general terms, we may distinguish between two main channels of transmission of the shocks which have been debated at length within the literature on the credit channel: (i) the balance sheet channel, and (ii) the (bank) lending channel (see Bernanke, Gertler & Gilchrist, 1994). Namely, on one side, the balance sheet channel – whence the firm's net worth is negatively impacted by the adverse shocks deriving from the macroeconomic downhills and/or from the unfavorable evolution in the geopolitical scenario – implies that the firm's probability of default rises because its economic fundamentals have worsened. Instead, on the other side, the lending channel – whence the negative macroeconomic and/or geopolitical developments induce a credit crunch – postulates that the firm's liquidity provision is impaired and, in turn, the liquidity crisis may trigger an amplification of the risk of default. Here are some recent works expanding on the effects of the two channels.

Regarding the balance sheet channel, some studies have documented how rising geopolitical risks pave the way to a greater probability of default (Shrestha, Philip & Khaw, 2024). And, indeed, as surveyed by Derbali (2018), the evolution of their default frequencies and the size of the loan portfolio are expressed as functions of macroeconomic conditions – as well as unobservable credit risk factors – within the most widely used models of lender's credit management function. There is no dispute of the existence of a strong dependence on their macroeconomic drivers of the household mortgage probabilities of default (PDs) and loss given default (LGD) (Gross, Tressel, Ding, & Tereanu, 2022). Moreover, for the period 2014-19, Lo Duca, Moccero & Parlapiano (2024) find that aggregate shocks significantly affect the dynamics of credit risk in the Euro area corporate sector. An adverse supply shock leads to a deterioration of firms' riskiness 10 per cent above the average PD.

In turn, the fact that Central Banks embody the deterioration of corporate balance sheets and the rise in corporate PDs in their stress tests establishes a bridge between the balance sheet channel and the lending channel (e.g., Morell, Rice & Shaw, 2022). The outcome of the stress tests, in fact, will then likely imply a rise in capital requirement for banks which would lead to a worsening in the supply of credit.

With respect to the lending channel, Bernanke (2018) highlights that the unusual severity of the Great Recession – following the Global Financial Crisis of 2008-09 – was due primarily to the panic in funding and securitization markets, which disrupted the supply of credit. This finding helps to justify the government's extraordinary efforts to stem the panic in order to avoid greater damage to the real economy. In turn, Demir & Danisman (2021) address the effects of economic uncertainty and geopolitical risks on bank credit growth on a large sample of banks from 19 countries between 2010 and 2019. They find that economic uncertainty causes a significant decrease in overall bank credit growth while no such significant overall effect of geopolitical risks is documented.

A further twist on how the lending channel reflects macroeconomic conditions at large is addressed by those studies which focus on the link between sovereign risks and banks' risks. From this perspective, the influence of public sector conditions on the banking sector is sometimes proved by the significance of variables like the 10-year bond yields or the long-term sovereign rating role, as shown by articles analyzing banks' credit default swap (CDS) spread determinants (e.g., Ortolano & Angelini, 2022).

Overall, there is ample evidence that geopolitical risks and worsening macroeconomic conditions do have a negative impact on the probability of default by borrowers.

Macroeconomic context

Risk trend

Global picture

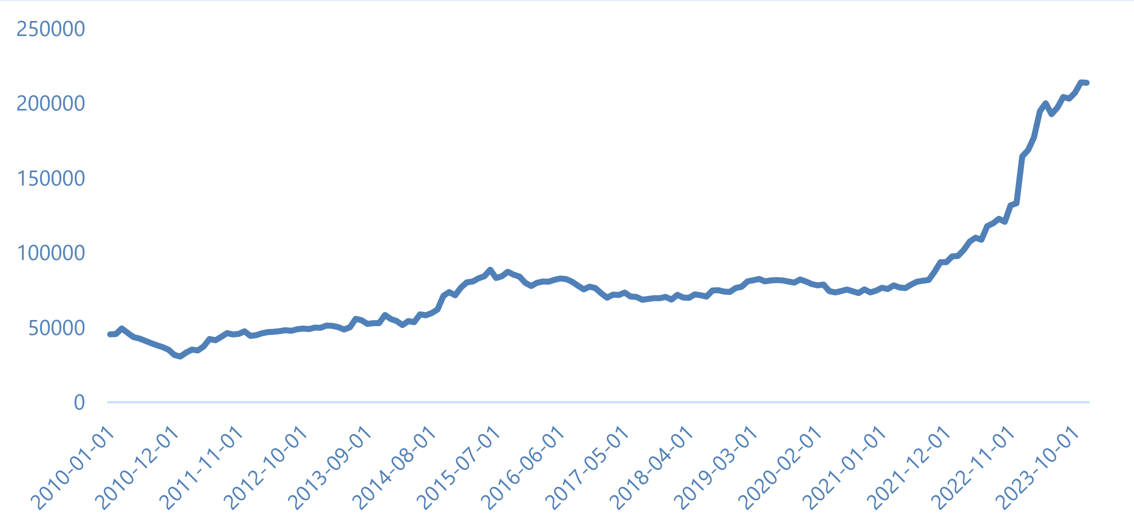
Global growth is projected to moderate further in 2024, reflecting the lagged and ongoing effects of restrictive financial conditions, sluggish global trade and investment and persistent geopolitical threats. Nonetheless, inflation is falling faster than expected in most regions, potentially paving the way for the easing of financial conditions in the second half of the year.

Regional prospects are diverging, with greater-than-expected resilience in the United States and several emerging economies, while a slower growth is expected in China, Europe and Central Asia.

According to IMF estimations, US growth is projected to moderate from 2.5% in 2023 to 2.1% in 2024 and 1.7% in 2025[1]. The smoothed growth rate comes as a result of the lagged effect of monetary policy tightening, the expiry of fiscal stimulus, and a softening in labour markets. Growth in the US has proved stronger than consensus expectations for 2023 on the back of robust private and government consumption and investment. The most aggressive tightening cycle in decades slowed but didn't wreck US corporate investments: post-pandemic phase in US fuelled factory construction activity as U.S. Census Bureau data shows. Manufacturing's share of construction spending hit 30-year highs in December 2023, despite one of the fastest rising interest rates cycle, mainly driven by a U.S. policy push to boost domestic clean-energy and electronic manufacturing. U.S. construction spending by manufacturers has almost tripled from pre-pandemic levels, reaching an annual rate of almost $214 billion in December 2023 compared with $81 billion in December 2019.

[1] OECD Economic Outlook, November 2023.

Exhibit 1 – Total Construction Spending: Manufacturing in the United States (Millions of Dollars, Seasonally Adjusted Annual Rate)



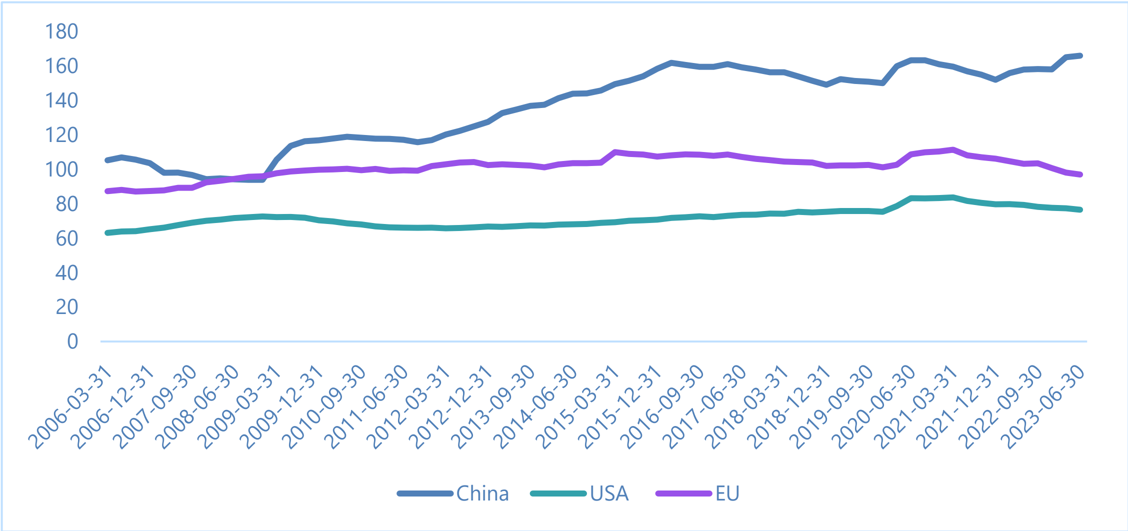
Source: U.S. Census Bureau

The Chinese economy is expected to grow by 4.7% in 2024 and 4.2% in 2025 after a +5.2% in 2023[2]. The rebound after the COVID-19 outbreak is losing momentum as the country faces several challenges. One of the main reasons for China's slowing growth is a mounting real estate crisis. China's real estate accounts for as much as 20 percent of total activity but the last three years have also seen highly indebted developers from Evergrande to Country Garden default on U.S. dollar-denominated debt held by overseas investors.

To finance the rapid expansion of the last decades, both consumers and corporates debt increased remarkably as a result of years of loose fiscal and monetary policies. (See Exhibit 2).

[2] OECD Economic Outlook, November 2023.

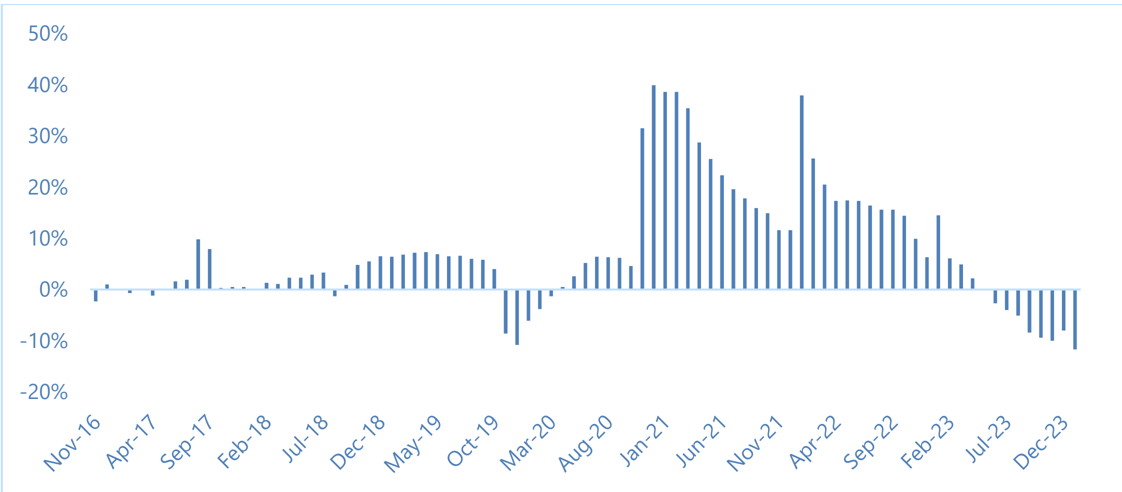
Exhibit 2 – Credit to non-financial corporates as % of GDP: China, Euro Area, US



Source: BIS

In this context, new foreign direct investment into China plummeted last year to the lowest level in three years (see Exhibit 3), as a reflection of slowing in China's economic prospect, although there is little evidence that foreign companies are, on aggregate, reducing their presence in China.

Exhibit 3 – China Foreign Direct Investment (FDI), YoY change %



Source: Ministry of Commerce People's Republic of China

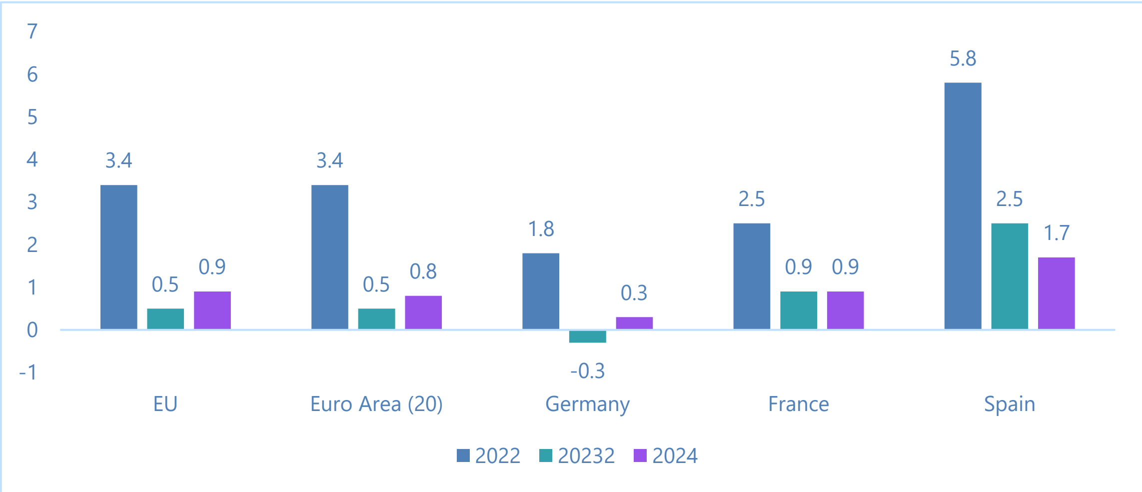
In recent weeks the Chinese government and the People's Bank of China unveiled fiscal and monetary policy support aiming to underpin growth and improve financial markets' confidence; Beijing is expected to issue 1 trillion yuan ($139 billion) in long-term bonds to help bridge funding gaps, provide support to financially strapped local governments and invest in advanced technology, social support via government-subsidised housing programs and education.

Europe

The European macroeconomic context at the beginning of 2024 is characterised by a broad stagnation. The anemic growth displayed in the second half of 2023 comes off the back of the prolonged weakness in global trade and tighter financial conditions in Europe. Private consumption remained subdued while corporate investment propensity contracted due high financing costs and geopolitical uncertainties. At the aggregate level, the European Union barely avoided technical recession in 2023 and a mild rebound is expected in 2024 with GDP growth projected at +0.9% vs. +0.5% of 2023. In the euro area, the real GDP growth is anticipated to reach +0.5% in 2023 and to show some improvement in 2024 (GDP growth +0.8% YoY vs. 2023), supported by rising real disposable income and export dynamics.

Nonetheless, significant dispersion in terms of gross product growth was observed among Member States. The German gross domestic product fell by 0.3% in the 4th quarter of 2023 compared to the previous quarter of 2023 after stagnating in the first three quarters. In 2024, Germany is set to return to positive, albeit moderate, growth (+0.3%) as a further easing of financing conditions is foreseen, and real incomes would benefit from a robust job market. In France, consensus GDP estimates would point to a +0.9% growth in 2023, driven by strong growth particularly in the second quarter. High inflation and tighter financial conditions weighed on growth throughout the year despite government support measures and a very favourable labour market; a +0.9% GDP growth is envisaged also for 2024. Finally, Spain consolidated a solid growth path with Spanish economy estimated to have expanded by 2.5% in 2023.

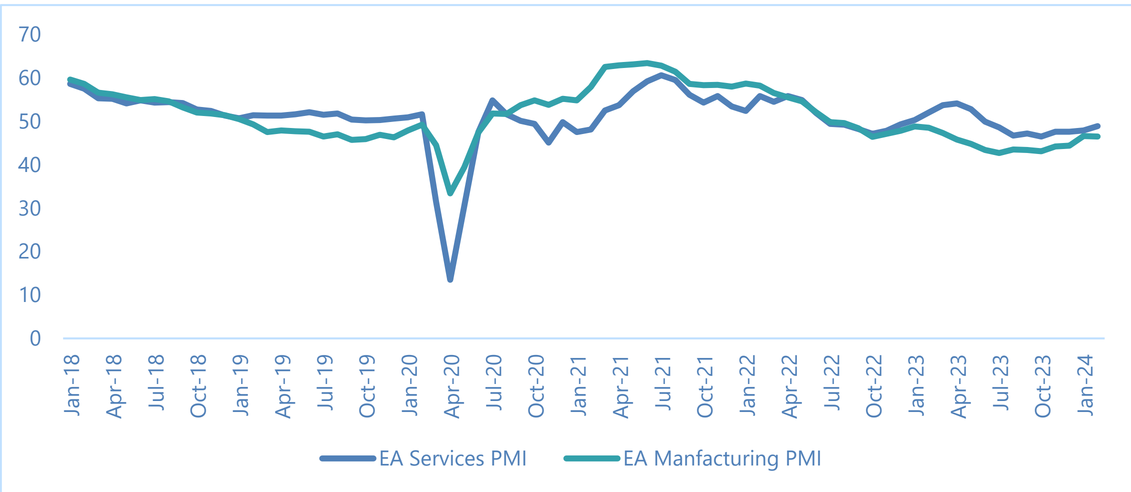
Exhibit 4 – Gross domestic product, volume (percentage change on preceding year) and forecasts



Source: European Economic Forecast. Winter 2024

Recent PMIs reading brought better news to Euro Area corporates; both Manufacturing and Services PMIs increased in February 2024, indicating that the eurozone's economic slump is easing. Manufacturing activity remains weak and below the economic expansion threshold of 50 but momentum started at the end of 2023 is consolidating. The impact of the Red Sea disruptions on eurozone's production appears to be easing, as supply delivery times have fallen in February. Service activity looks slightly better positioned with some improving evidence for service businesses but also signalling faster rising prices.

Exhibit 5 – Eurozone Manufacturing Purchasing Managers Index (PMI)



Source: HCOB S&P Global

Italy

In a context still characterised by strong uncertainty, the Italian economy would close 2023 with a growth rate of 0.7% according to estimates developed by the Bank of Italy; in 2024 the product would increase by 0.6% in 2024 and by 1.1% in 2025[3]. The reduction in GDP expansion rates in 2023 compared to 2022 and 2021 reflects weakening investment dynamics (+0.6% in 2023 from +9.6% in 2022[4]), held back by the rise in interest rates and softening demand while consumption holds up, supported by the deceleration of inflation and a record employment rate (61.9% in December 2023)[5]. Furthermore, despite the difficult geopolitical context, in the first 10 months of 2023 Italy's trade balance was positive for 24.9 billion euros[6], supported by the cyclical growth in exports.

The economic consensus is aligned in forecasting a moderate growth in 2024, with households' purchasing power expected to benefit from disinflation and an increase in wages, against the background of a resilient labour market. In 2025, the implementation of RRF-backed projects would support both infrastructure spending and the purchase of firms' tangible and intangible assets, stimulating internal demand.

Exhibit 6 – Italy GDP growth forecasts of Bank of Italy and other organisations

SOURCE	2023	2024	2025
Bank of Italy[3]	0.7	0.6	1.1
European Commission[7]	0.6	0.7	1.2
OECD[8]	0.7	0.7	1.2
IMF[9]	0.7	0.7	1.1

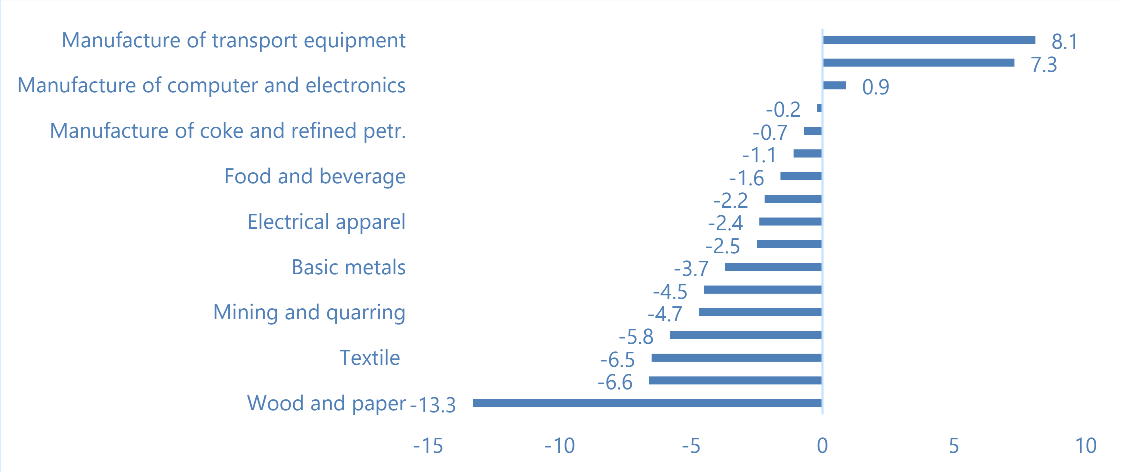
Source: Banca d'Italia, 'Macroeconomic projections for the Italian economy (Eurosystem staff macroeconomic projections)', 15 December 2023; European Commission, European Economic Forecast, Winter 2024, February 2024; OECD Economic Outlook, Interim Report February 2024; IMF, World Economic Outlook Update, January 2024

Industrial production remained particularly weak in 2023, continuing the negative trend that has been under way since mid-2022. The evolution during the year, net of seasonal factors, was characterised by economic declines in almost all quarters, with the exception of the third,

[3] Bank of Italy, Economic Bulletin n.1, 2024.
[4] ISTAT.
[5] ISTAT.
[6] ISTAT.
[7] European Commission, Winter Forecast 2024
[8] OECD Economic Outlook, Interim Report February 2024: Strengthening the Foundations for Growth
[9] IMF, WORLD ECONOMIC OUTLOOK UPDATE, Jan. 2024

when a very slight recovery was recorded. Among the main industrial groupings, manufacturing of transport equipment, pharma and electronics increased the volume of industrial production compared to 2022. On the flip side, chemicals industry, textile and chemicals recorded the highest deterioration in production volumes[10].

Exhibit 7 – FY2023/2022 year-on-year production volumes growth rate by industrial groupings, percentage

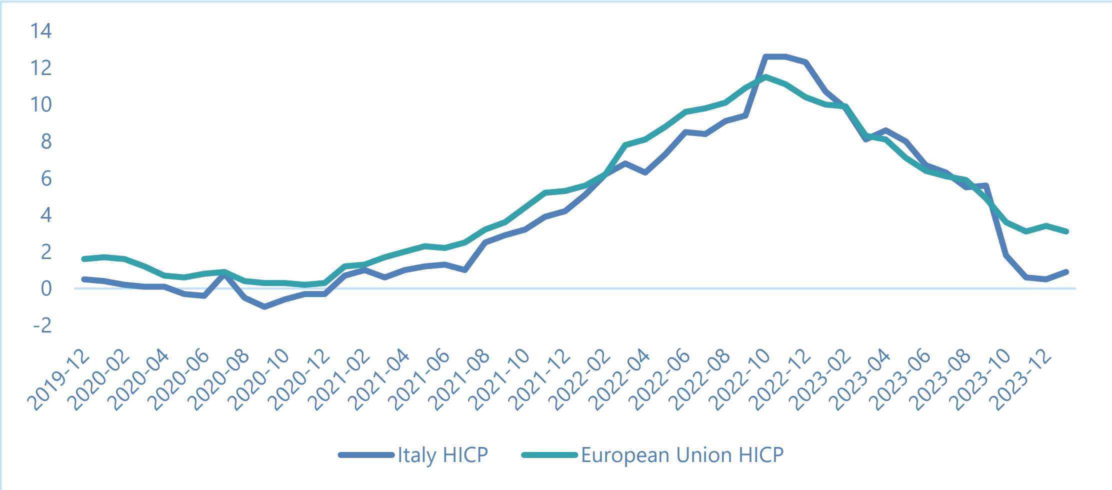


Source: ISTAT, Industrial Production, December 2023

Looking at price dynamics in Italy, the decline in inflation intensified in 2023 and continued in the first months of 2024, remaining close to the lowest level since 2021; HICP data shows a gap formation with other EU countries, mainly driven by rapidly falling energy prices. According to forecasts developed by the Bank of Italy, the Italian consumer price index would reduce to 1.9% in 2024 from 6.0% in 2023.

[10] ISTAT

Exhibit 8 – HICP index, annual rates of change (m/m-12)



Source: Eurostat

The implementation of the investment plan related to European funds should continue to support growth also in 2024 following the approval by the EU Council of the overall reform proposal of the NRRP Italian plan. With the payment of the fourth instalment at the end of 2023, the total amount of resources received so far by our country exceeds 100 billion euros, although just 41 billion euros have been spent out of 194.4 billion of euros of NRRP resources (21%). Most of the expenditure concerns pre-existing measures and/or tax incentives (Ecobonuses, tax credits, Transition 4.0). In terms of targets progress, Italy is doing well in Climate space (39%), while is yet to improve in digital and social spending (25.6% and 28.2% respectively)[11].

Risks to the outlook

In 2024, several risks loom on corporate credit profiles; in this section we explore a list of potentially disruptive risks that could impact our forecasts. The sequence of such systemic risks can be summarised in the concept of polycrisis.

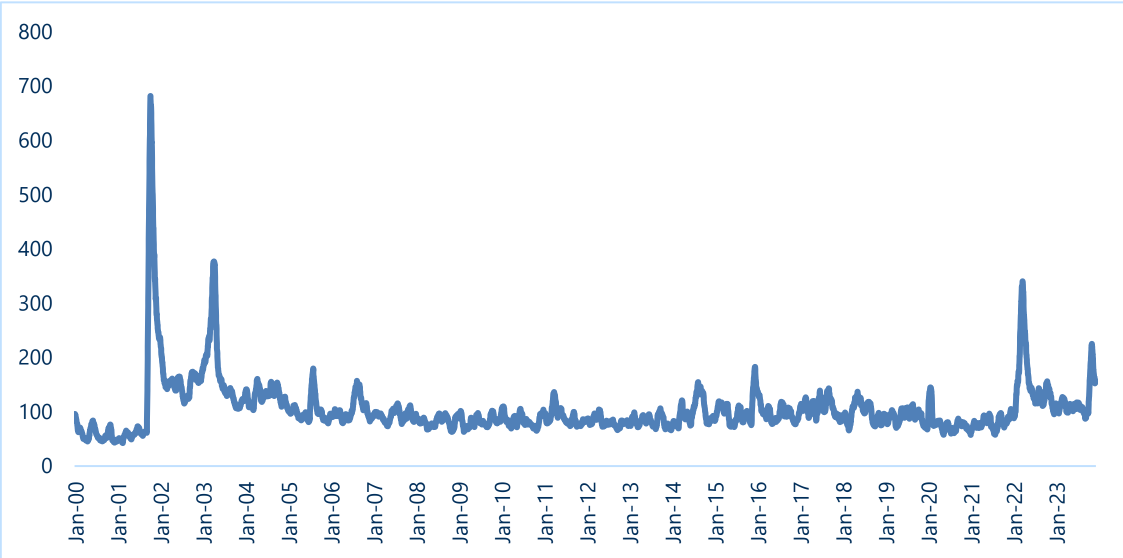
Geopolitics

Escalation or outbreak of interstate armed conflicts remain key sources of geopolitical risk in 2024.

[11] European Commission, Recovery and Resilience Facility Country Snapshots, February 2024.

The attention is focused on three potentially disruptive conflicts: the war in Ukraine, the Israel-Palestine conflict and continuous tensions between US and China over Taiwan's independence. Exhibit 8 shows the evolution of the geopolitical risk index, signalling higher than average level of risk entering in 2024, although moderating in the most recent observations.

Exhibit 9 – Geopolitical risk index



Source: Caldara and Iacoviello (2022); World Bank.

According to the World Economic Forum, 25% of respondents reported that an escalation or outbreak of interstate armed conflicts is likely to be one of the top risks this year[12]. The attention is focused on two geographical regions impacted by armed conflicts: Ukraine and Middle East. The war in Ukraine is now entering its third year and chances are it will continue beyond this year, too. So far, the conflict remained limited to Russia and Ukraine itself but risks of escalation to other NATO partners remain on the background. Also the conflict in Gaza poses serious risk of escalation into the wider region, which produces about 35 percent of the world's oil exports and 14 percent of its gas exports[13]. So far, the Gaza conflict is yet to have a sustained impact on global commodity price trends, but the situation may change very quickly if other natural resources-rich Middle Eastern countries become involved. As things stand, we do not expect the current conflicts to escalate further but any significant

[12] 2024 Global Risks Perception Survey, World Economic Forum.
[13] IMF, World Economic Outlook Update, January 2024.

deterioration in the current situation will therefore pose a material challenge to our default probability forecasts. Furthermore, in 2024 a total of 40 countries with a combined population of over 3 billion will hold important elections: USA, EU, India, Russia, Iran, UK elections results could have a material impact on global business conditions in 2024. Potential negative consequences encompass higher business costs, trade restrictions and financial market volatility.

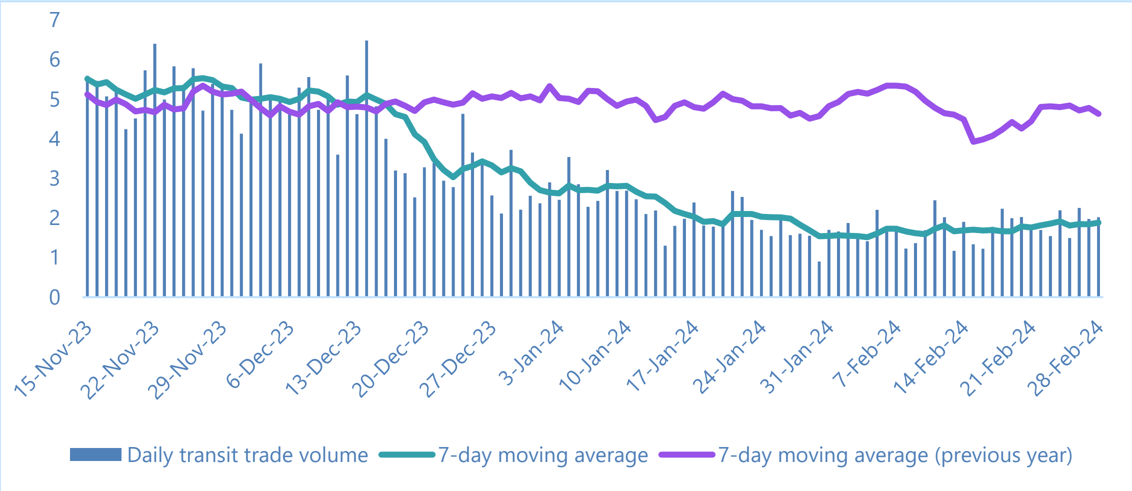
Red Sea tensions

In the last months of 2023, a series of severe attacks to the maritime traffics have been recorded near the Mab-el-Mandeb strait and across the Red Sea. These military actions have been carried out by the so-called Houthi rebels, a military formation emerged in northern Yemen in the 1990s. Investigating the political reasons behind these behaviours is far beyond the purpose of this document that, on the contrary, aims to draw the reader's attention to the potential consequences for Italian firms.

The Suez Canal and Red Sea together make up one of the most important shipping corridors globally as they provide the fastest and shortest way to travel between Europe and Asia. More specifically, it is estimated that more than 10% of global trade flows transit through the Mab-el-Mandeb strait. The recent attacks led to some disruption in international trade as freight volumes in the Red Sea and the Suez Canal was 80% lower than before the crisis, according to the German economic institute, IfW Kiel[14].

[14] Kiel Trade Indicator, Kiel Institute for the World Economy.

Exhibit 10 – Daily transit volume through Bab el-Mandeb Strait, Millions tons per day, 7-day moving average



Source: IMF Port watch

Container shipping costs have already sharply increased as insurance costs spikes and more and more maritime firms are choosing to take the alternative shipping route around Cape of Good Hope, adding another 15 days to their journeys. Nonetheless it is important to highlight that, despite upward pressure from higher shipping costs, so far, the impact on inflation and commodity market has been moderate.

The overall impact on global trade and on firms' credit risk will depend on how long these attacks will continue. As already mentioned, attacks on commercial vessels transiting the Red Sea have already started to disrupt key shipping routes and increasing transportation costs. In case of serious escalation of conflicts in the area, energy supplies could also be substantially disrupted, leading to a spike in energy prices and further weakening of global growth.

Focusing the attention on Italian corporates, Bank of Italy estimates[15] show that almost 16% of Italian imports are shipped through the Red Sea. In fact, this route is the fastest maritime way that collect Mediterranean area to East Asian economies and a large part of imported goods from China and Persian Gulf countries used to transit through Red Sea and Suez channel. A sectoral goods breakdown analysis based on ISTAT data shows that more than 30% of Italian imports in fashion supply chain arrives via the Red Sea (Table 2); the share of imports via Red Sea related to energetic goods is also significant, with particular reference to crude oil and other energy commodities. Furthermore, almost 20% of imported metal products and

[15] Bank of Italy, Economic Bulletin n.1-2024.

machineries transit through this maritime route, exposing manufacturing corporates to potential supply disruptions and production delays. Finally, furniture, wood and glass sectors seem to be exposed by more than 15% to the imports of raw materials via Red Sea route.

In this research, disruptions related to the Red Sea has been considered as potential risk drivers, specifically for the most exposed sectors and with growing importance in case of forecast scenarios where the risk of attacks on merchant ships remains high through all the FY 2024.

Exhibit 11 – Share of Italian imports transiting through the Red Sea by sector and sector weight

SECTORS	SHARE OF IMPORTS VIA RED SEA (%)	SECTOR WEIGHT BASED ON TOTAL IMPORTS (%)
Textiles, clothing and leather	33.38	6.25
Crude oil and petroleum products	25.21	8.85
Metals, metallurgy, machinery	18.96	28.98
Furniture, wood, glass, ceramics	15.39	5.22
Chemicals, rubber, plastics	12.71	17.65
Transport equipment	10.80	7.53
Gas, coal and lignite	10.80	7.53
Other	5.71	15.24

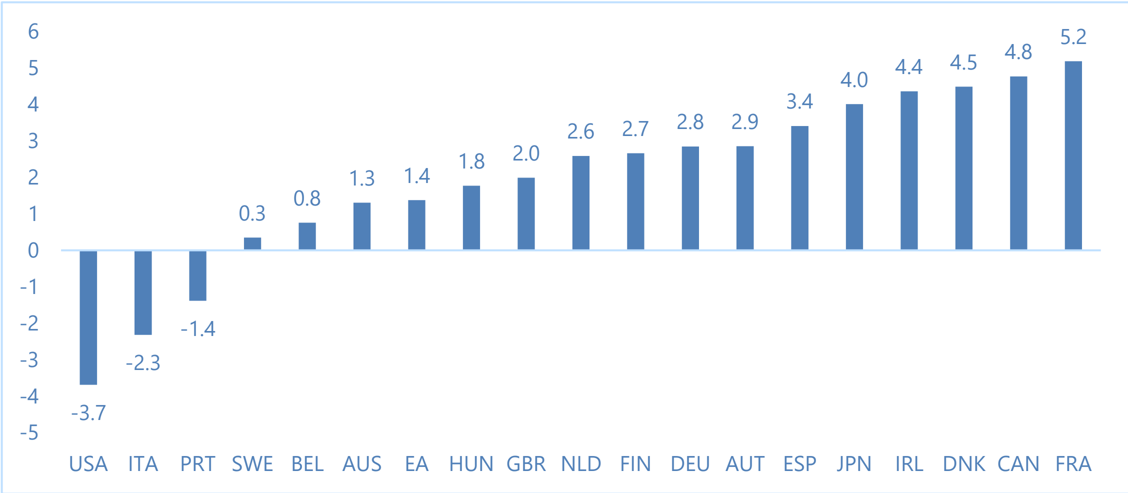
Source: ISTAT via Banca d'Italia

Government support measures expiring

In order to provide support for households and corporates hit by the COVID-19 outbreak, the Italian Government adopted several measures to counter the pandemic-related adverse economic effects. Almost four years after the first nation-wide lockdown expired on May 4th, 2020, many pandemic-related economic measures have been phasing out or adjusted to meet more stringent fiscal rules. Many firms and households benefited from Government help measures to cushion the COVID-19 and energy price shocks, tax incentives to support recovery of construction and employment.

Fiscal and liquidity measures supported consumer spending over the last year but now households are running down the excess savings accumulated since the beginning of the pandemic. According to OECD elaborations (Exhibit 10), Italian households notably struggled to maintain excess saving accumulated in previous years, losing purchasing power with negative consequences on internal demand.

Exhibit 12 – Change in estimated excess savings over the two years to 2023Q3, in percentage points of disposable income



Source: OECD, Quarterly National Accounts database; OECD Interim Economic Outlook 115 database; and OECD calculations. Note: Based on gross household saving as reported in the national accounts. Excess savings are the cumulated sum of the differences between quarterly household savings flows since 2020 Q1 and saving that would have occurred if the saving rate had been equal to the average rate over 2015-2019.

During the COVID-19 pandemic, loan moratoria were introduced; the measure was designed to support corporates' liquidity with the aim to prevent a new wave of NPLs. Article 56 of Decree Law 18/2020 has introduced a debt moratorium for SMEs that have no debts classified as non-performing at the date of entry into force of the decree but that are facing a temporary liquidity shortage owing to the COVID-19 crisis, attested by self-declaration. The moratorium referred to the payment of capital, interest and fees related to the credit, loan and financial leasing contracts.

The "Sostegni bis" decree extended moratoria on mortgages and credit facilities of SMEs until the 31st of December 2021. The suspension was limited only to the principal instalments; therefore, the payment of interest resumed as of the 1st of July 2021[16]. To counteract the pandemic recession, in addition to the public moratoria enacted by law, private initiatives were adopted along with individual banks' proposals to their clients. The total amount of loans moratorium since March 2020 reached 268 billion euros, 44 billion of which were still outstanding as of the 31st of December 2021[17].

[16] Italian Ministry of Finance.
[17] Bank of Italy.

Given the aforementioned deadline, with limited and targeted extensions allowed to specific private sector categories, moratoria are currently expired and Italian corporates started to pay their loans in full (interest plus principal instalments). The important rebound in the economic context after the pandemic helped corporates to pay back the full instalments but international crisis, inflation and rising interest rates represent major credit risk factors.

One of the fiscal tools used by the Government in the recent years were the public guarantees. In the past few years, Italian companies have been offered various forms of public guarantees on their debt obligations. Indeed, the government exploited guarantees as a tool to provide liquidity during the COVID-19 pandemic, as well as a measure to counteract the surge in energy prices.

From March 2020 to June 2022, guaranteed funding was introduced within the Temporary Framework COVID-19 through the 'Cura Italia' and 'Liquidity' decrees. The loans amounted to more than 2.7 million units, for a financed amount of €252.9 billion (€123.1 bn in 2020, €93.3 bn in 2021 and €36.5 bn in 2022) and a guaranteed total of €200.2 billion[18]. The average length of the funding was 71.1 months, and the average guaranteed percentage of loans was 79.2%. As of the 1st of July 2022, a significant part of the regulation ceased to apply[19].

Throughout the period, the role of the Guarantee Fund has been consistently strengthened by the expansion of the pool of eligible beneficiaries and of the size of the support. More specifically, funding was free and could be accessed without credit profile checks, with the maximum guaranteed amount reaching €5 million per company. A specific regime applied to loans of less than €30k, which were almost completely covered by public guarantees (the average guaranteed percentage of loans was 99.7%); this specific type of loan was the most frequent, amounting to 1.2 million operations (42.3% of the total) and €23 billion ca, with €38.9k of average funding.

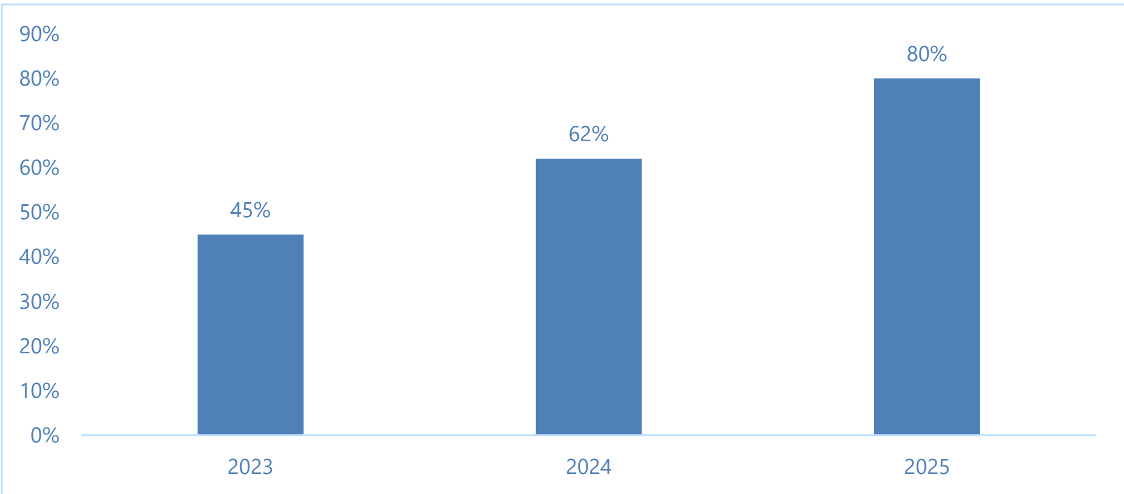
A new set of public guarantees were introduced following the outbreak of the Russian-Ukrainian war through the “Aiuti” decree to help corporates navigating the energy crisis. The measures aimed to help firms characterised by cash-flow issues after the spike in energy prices caused by the war. The guarantees reached considerable amounts, with coverage of up

[18] Fondo di garanzia per le PMI Report Temporary Framework COVID-19 30 giugno 2022.
[19] SACE.

to 90% of loans for specific types of companies, i.e. companies with a maximum of 5,000 employees in Italy and a maximum of 1.5 billion in turnover. This measure is no longer available as of the 1st of January 2024.

To sum up, liquidity supports provided in the recent years has been a significant resource for businesses in a period of great difficulty and uncertainty. As of today, most of loans moratoria expired and immediate concerns in the aftermath of the measure's phase-out have softened but lower economic growth and tighter financial conditions could affect liquidity positions for weaker corporations. Looking at pandemic-guarantee loans, data from the Central Credit Register (CR), Mediocredito Centrale and SACE highlight that both pandemic-guaranteed loans and the ones implemented to ease the surge in energy costs do have medium-to long-term deadlines, with a maximum of 15 years for COVID-19 guarantees and a maximum of 8 years for energy guarantees, implying that the first significant wave of maturing loans will not occur before 2026-27, when a high portion of pandemic-related loans will be due.

Exhibit 13 – Share of loans backed by COVID-19 guarantees that reached maturity



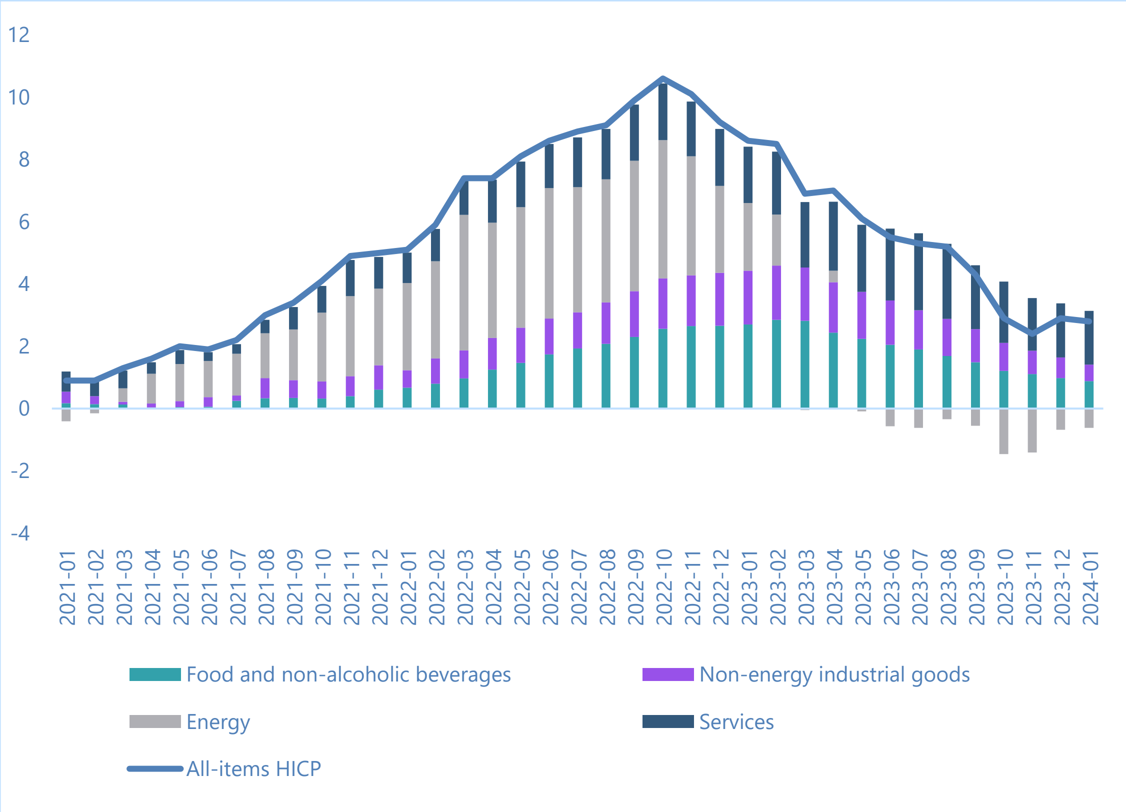
Source: Bank of Italy based on data from the Central Credit Register (CR), Mediocredito Centrale and SACE

Inflation and interest rates developments

In 2023, Euro Area's headline inflation showed a greater than expected reduction, mainly due to the sensible drop in energy prices. The general pattern of decreasing inflation continued in the first month of 2024; according to the latest flash estimate by Eurostat, the annual headline inflation rate (as measured by the harmonised index of consumer prices, HICP) stood at 2.8%

in the euro area in January 2024[20]. The decline in inflation is mainly attributed to the continued decrease of the energy prices cluster and the consistent, moderate slowdown in food prices.

Exhibit 14 – Euro Area HICP and contributions to HICP inflation in euro area, percentage points



Source: CRA elaboration based on Eurostat. Note: Last observation is January 2024

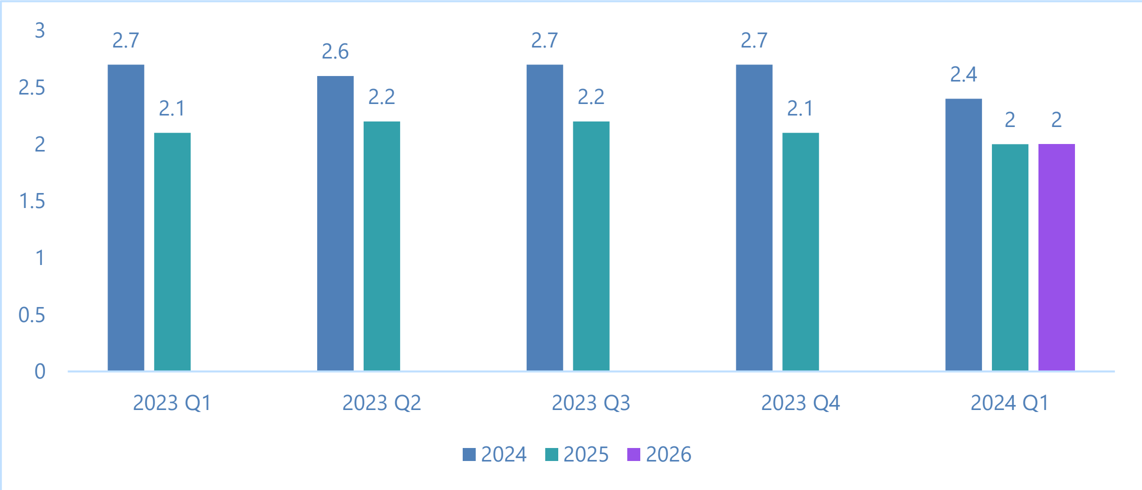
Inflation is seen to ease further over the course of 2024 as the residual impacts of past energy shocks and the post-pandemic demand push diminish while the effect on the economy of stringent monetary policy consolidates.

According to the ECB Survey of Professional Forecasters (SPF) for the first quarter of 2024[21], a downward revision of headline and core inflation is expected. As shown in Exhibit 13, survey respondents are forecasting inflation to reach 2.4% in 2024 (-0.3 p.p. revision) and 2% in 2025 and 2026.

[20] Eurostat.
[21] ECB's Survey of Professional Forecasters (SPF), January 2024.

Geopolitical factors, volatility in energy prices and wage pressures are among the main upside risks for inflation. On the flipside, weaker economic growth and further euro appreciation are seen as main downside risks.

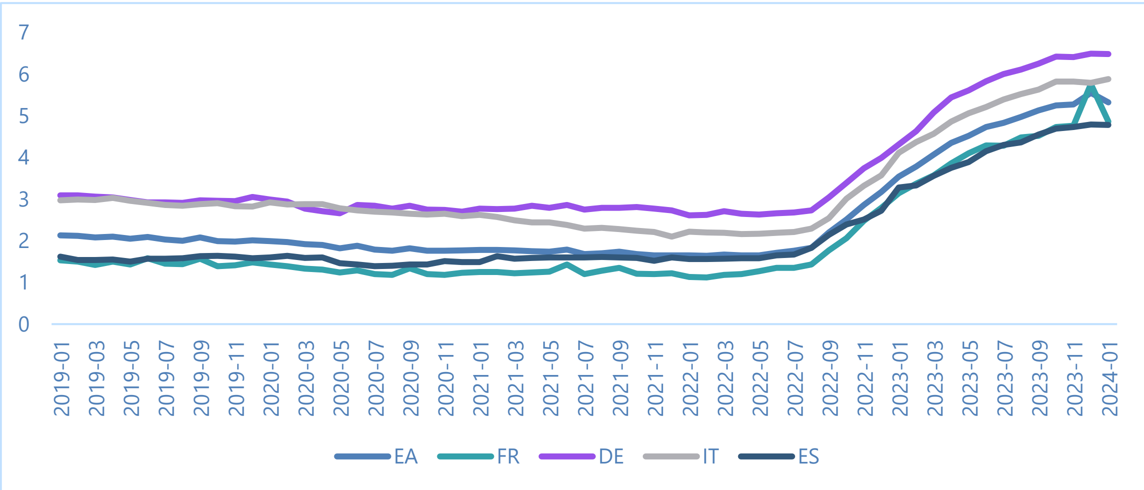
Exhibit 15 – ECB SPF headline inflation forecasts, in %



Source: CRA elaboration based on ECB, SPF

Nonetheless, financial conditions are envisaged to remain tight across 2024. Between July 2022 and September 2023, the ECB's policy rates rose substantially and rapidly, by a total of 450 basis points. This led to a sharp increase in lending rates for non-financial firms across euro area countries (Exhibit 14).

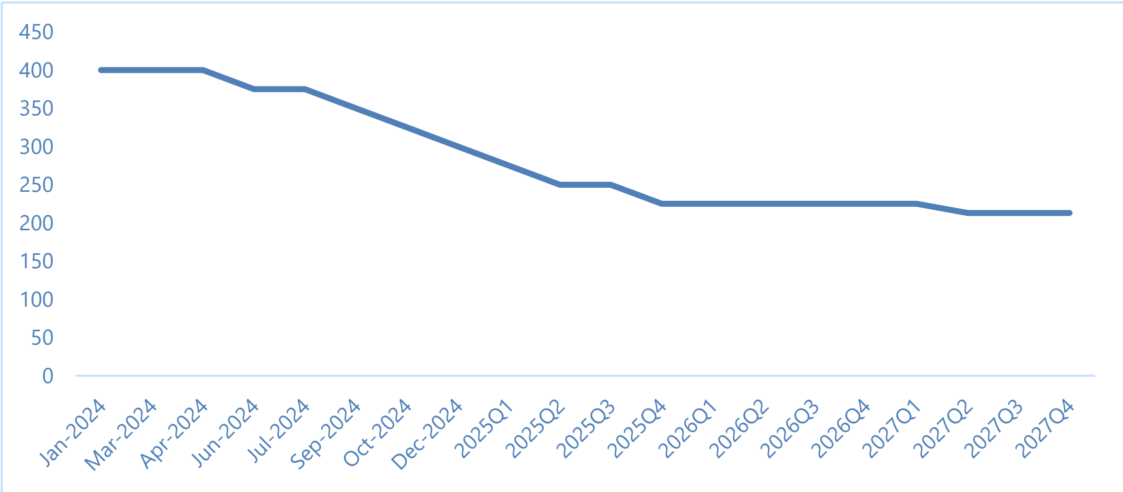
Exhibit 16 – Composite cost-of-borrowing for NFC, percentages per annum



Source: CRA elaboration on ECB data

Market expectations suggest the ECB to start cutting interest rates from June 2024. According to the ECB's Survey of Monetary Analysts, January 2024, deposit facility rate is seen to be cut to 3% at the end of 2024, 2.25% at end-2025 and end-2026. Exhibit 15 shows the expected path of the deposit facility rate as projected by market participants.

Exhibit 17 – ECB deposit facility rate expected evolution, median



Source: CRA elaboration based on ECB's Survey of Monetary Analysts, January 2024

Risks concerning interest rates include potential escalations of geopolitical tensions, especially in the Middle East, which could push energy prices and freight costs higher, persistent labour market tightness and a better than expected rebound in economic growth. Such developments could protract or even increase tighten financial conditions, with negative effect for credit risk of non-financial corporates.

ESG climate and transitional risk

Over the last few years, ESG factors have become increasingly relevant for businesses. Among others, creditworthiness, assets values, and the reputation of businesses can be affected by them. In relation to climate and environmental risks, businesses have been facing two types of risk: physical risk and transition risk. Physical risk arises from climate-related extreme events such as floods, storms, droughts, heatwaves, and forest fires. Environmental crises, such as extreme weather events, could destabilise both sovereign economies and private corporate businesses, cause commodity price spikes, adding pressure to profit margins and disrupting supply chains.

Transition risk stems from climate change mitigation policies if they are excessively abrupt, not gradual, and poorly managed.

2023 was the second-warmest year for Europe, at 1.02°C above the 1991-2020 average and considerable number of floods and storms were experienced in Europe[22]. In particular, Italy recorded 378 extreme weather events, which is a 22% increase compared to 2022[23]. In this context, some sectors will be more affected than others. Agriculture is the most vulnerable sector to climate change. This is because agricultural activities are heavily dependent on weather patterns and climate extreme events can heavily affect the crop yields and livestock health. It is worth mentioning the floods that occurred in the Emilia-Romagna region in May 2023, which resulted in an estimated economic damage of roughly 8.8 billion Euros of which 1.1 billion Euros to agricultural sector[24].

Given the rising trend in extreme events, the Italian legislature enacted a law at the end of 2023, requiring businesses to enter into insurance agreements to safeguard their physical assets by 2024[25].

The regulation on ESG issues is constantly evolving and it is primarily conducted by the European Union through directives and regulations. Below are some regulatory updates that occurred in 2023 and others that may occur in 2024.

Corporate Sustainability Reporting Directive" (5 January 2023 entered into force, and the first companies will have to apply the new rules for the first time in the 2024 financial year, for reports published in 2025.) that substitutes the "Non-Financial Reporting Directive", expands the scope of companies involved in preparing sustainability reporting and sets common ESG reporting standards[26].

ReFuel EU Aviation Regulation (31 October 2023 entered into force and will apply from 1 January 2024) aiming at reducing emissions from aviation sectors[27].

[22] European Commission-Copernicus Programme-ECMWF, The 2023 annual climate summary.
[23] Osservatorio città clima-Legambiente, Balance 2023.
[24] Emilia-Romagna region, Damage report 15 June 2023.
[25] Italian Parliament, Law 30 December 2023, n. 213.
[26] European Parliament and the Council, Directive (EU) 2022/2464.
[27] European Parliament and the Council, Regulation (EU) 2023/2405.

Provisional agreement between the Council and EU Parliament in January 2024 for amending Regulation (EU 2019/1242), that sets new emission reduction targets for heavy-duty vehicles for 2030, 2035, 2040 and extends the scope of the regulation to smaller trucks, urban buses, coaches and trailers[28].

Provisional agreement between the Council and EU Parliament in March 2024 on a proposal for a regulation on packaging and packaging waste, establishing new requirements to ensure that packaging is safe and sustainable, by requiring that all packaging is recyclable and that the presence of substances of concern is minimised[29].

In this framework, it is evident that both physical and transition risks will affect businesses differently, depending on factors such as their sector, size, investment capacity, and sustainability practices. As already mentioned, agriculture will be the most exposed sector to climate extreme events. Regarding transition risk, in order to comply with regulations, some sectors such as rubber and plastics, paper and packaging, transportation will require faster changes in production processes, raw materials usage, or new technology adoption.

[28] European Parliament and the Council, provisional political agreement amending Regulation (EU 2019/1242).
[29] European Parliament and the Council, provisional political agreement 4 March 2024.

Data and sample description

In the present section a description of the data and the sample used in the analysis is provided. The sample extracted for the analysis consists of 14,536 limited corporates, operating in 23 sectors; the related revenues amounted to 2,615 billion, representing more than 70% of total revenues of all Italian joint-stock and limited liability companies. The Cerved database was the main source for the analysis of economic and financial performances of the companies included in the sample while the Cerved Rating Agency database highlighted the risk level of such entities based on the credit rating activities performed by the Agency.

Data gathering

The first step of the process comprises of the collection of all the data needed to properly assess the credit profile of the considered sample. More specifically, the data of the rated portfolio is merged with relevant and key data contained in Cerved Group database. The resulting dataset therefore paints a complete picture for the companies under scrutiny.

More specifically, the data from the rated portfolio relates to firms' biographical data, such as, but not limited to, their tax code, business name, city and region within which they operate. The full list of variables extracted from the rated portfolio and their description can be found in the annex chapter.

The information from Cerved Group database which integrates the biographical data relates to firms' financial statements, credit risk, financial risk, financial ratios, size and payments' record among others. The full list of variables from Cerved Group database along with their description is reported in the Data chapter. Furthermore, this set of data contains information on the payment habits of companies and, where available, data from the credit bureau.

Moreover, the data from Cerved Group's datasets are complemented by the extremely valuable insight provided by the analysts' team leaders on the sectors' future trends. This qualitative information is then converted into quantitative data.

Sample description

The sample consists of 14,536 corporates ratings outstanding as of December 2023 issued by Cerved Rating Agency; descriptive statistics are provided in the following sections.

Sample description by size

Within the research project, Cerved Rating Agency distinguishes non-financial corporates into four size classes, using the criteria defined by the European Commission.

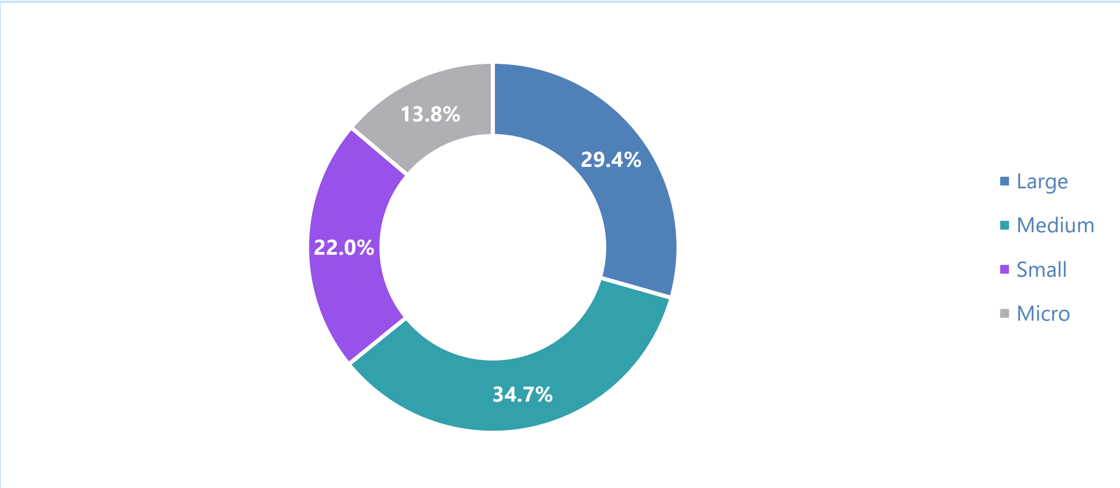
Exhibit 18 – Corporate size thresholds

COMPANY CATEGORY	STAFF HEADCOUNT	TURNOVER	OR BALANCE SHEET TOTAL
Large	>250	≥ € 50 m	≥ € 43 m
Medium	<250	≤ € 50 m	≤ € 43 m
Small	<50	≤ € 10 m	≤ € 10 m
Micro	<10	≤ € 2 m	≤ € 2 m

Source: European Commission, Recommendation 2003/36

The portfolio breakdown as of December 2023 by size shows that more than 70% of sample is represented by SMEs and micro corporates. More specifically, large corporates make up 29.4% of the sample, medium firms 34.7%, small corporates 13.8% and 22% of the sample is represented by micro firms. Below a representation of the sample breakdown by size.

Exhibit 19 – Sample distribution by corporate size (as of Dec 2023)

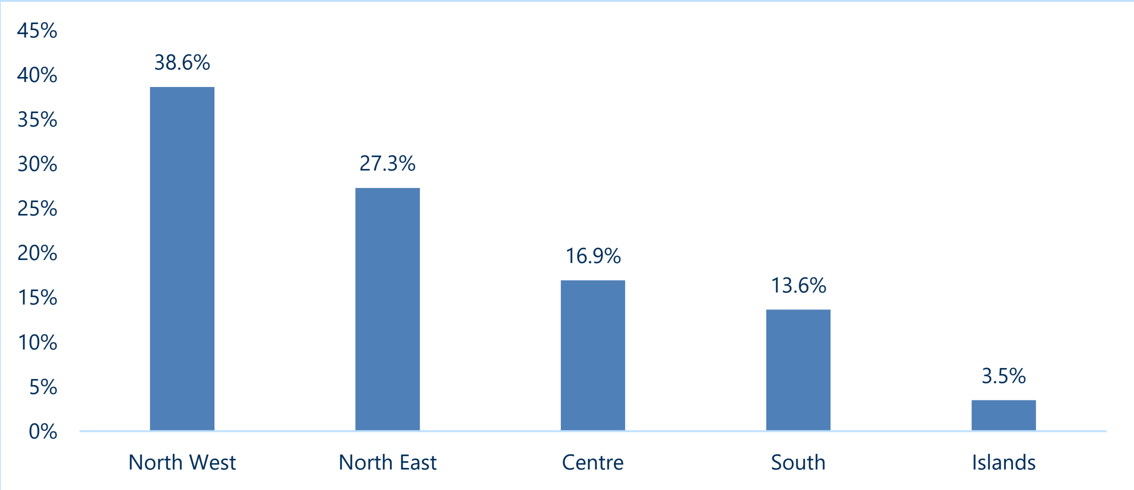


Source: Cerved Rating Agency

Sample description by geographic area

In terms of geographic area the sample consist of more than 65% of firms operating in North of Italy (Northwest at 38.6%, Northeast at 27.3%) followed by of firms operating in Centre of Italy (16.9%), South (13.6%) and 3.5% in Islands.

Exhibit 20 – Sample breakdown by geographical area

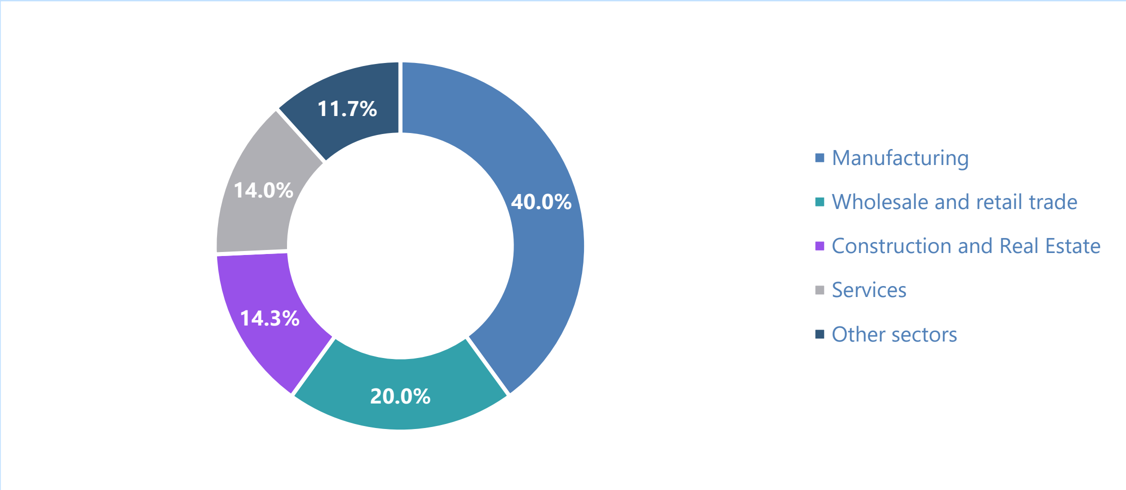


Source: Cerved Rating Agency

Sample description by macro-sector

The sample structure in terms of macro sector is composed as follows: 40% of corporates belongs to the manufacturing industry, 20% to wholesale and retail business, 14.3% to construction and real estate sectors and 14% to the services industry. The remaining 11.7% of the sample is an aggregate cluster of other sectors. The following table represents the sample breakdown by macro-sector.

Exhibit 21 – Sample breakdown by macro-sector



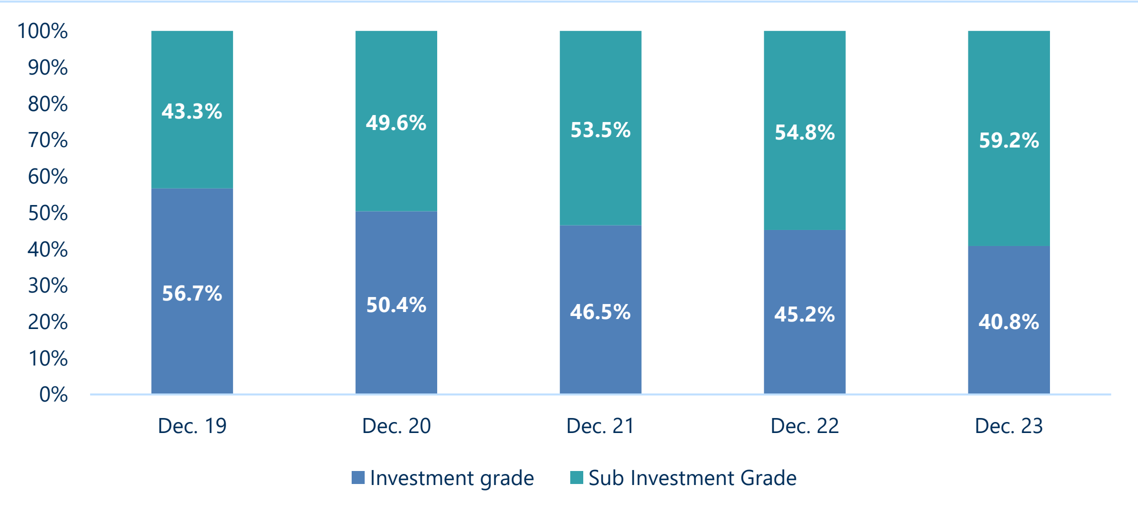
Source: Cerved Rating Agency

Historical rating evolution

The following section presents a risk profile analysis based on Cerved Rating Agency's outstanding and monitored public and private ratings issued on Italian non-financial companies (data as of 31st December).

The increase in portfolio risk is made evident by the change in the percentage of subjects assessed with an investment grade rating over the last few years, which went from 56% in December 2019 to 41% in December 2023.

Exhibit 22 – Historical evolution of portfolio Investment grade corporates

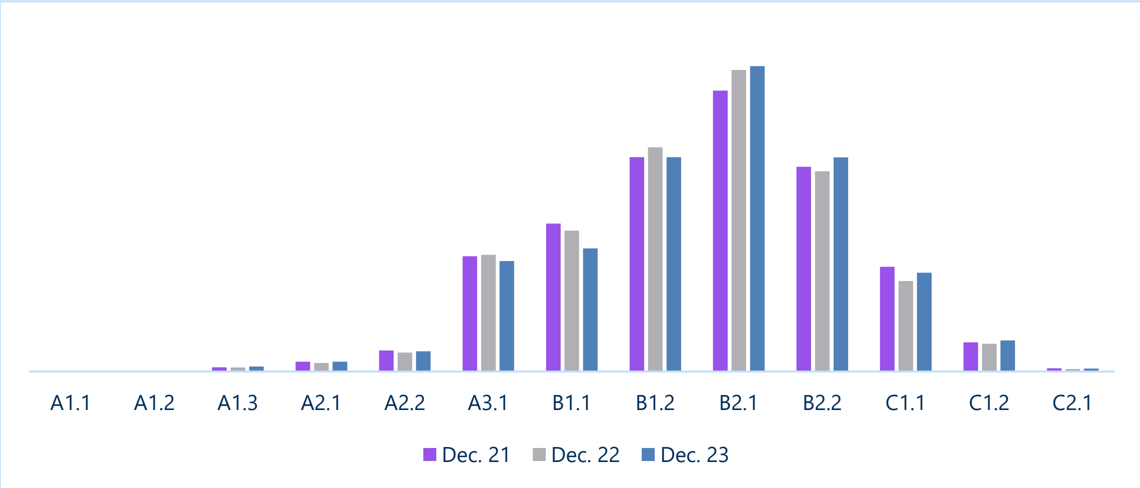


Source: Cerved Rating Agency

The analysis of historical rating distributions in the same period highlights a progressive deterioration of the portfolio credit quality. Overall, the corporate rating distribution in the observed period is skewed towards the sub-investment-grade rating categories (i.e. Cerved Rating Agency rating classes from B1.2 to C2.1) representing more than 50% of the whole sample; moreover, the modal rating class remained stable at B2.1 over the three years analysed.

We anticipate the rating distribution to remain broadly unchanged in 2024, with the rating migration concentrated mainly in the B category.

Exhibit 23 – Historical portfolio rating distribution



Source: Cerved Rating Agency

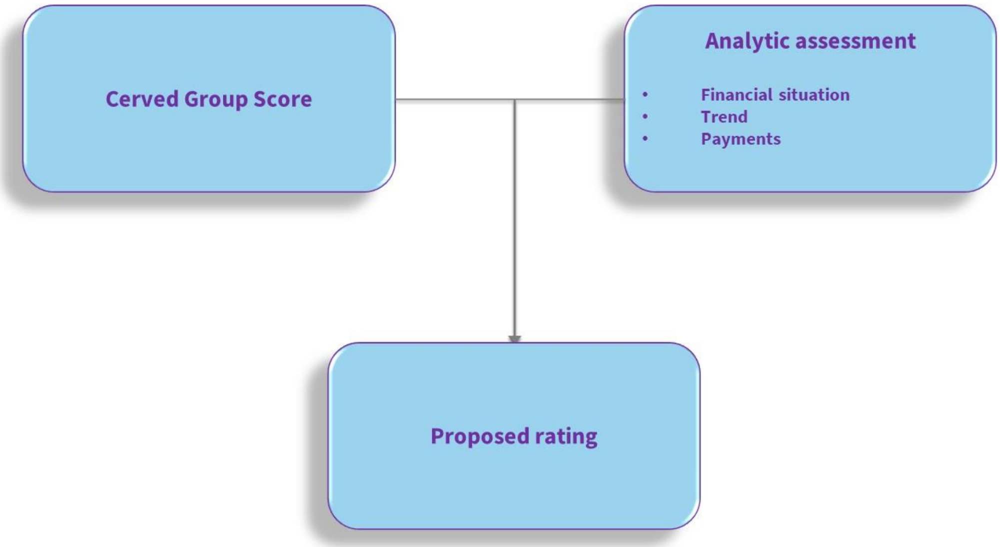
Methodology

In the present section we describe the process adopted to perform the 12-month forecast of the credit profile, and therefore probability of default, for companies in the CRA portfolio. The first part of this chapter is dedicated to the presentation of the proprietary Cerved Rating Agency rating model in order to provide the reader with the concepts that constitute the rating assessment process.

Modelling structure

The conceptual scheme of Cerved Rating Agency rating, as depicted in the chart, presents a modular structure, in which the grading, which are the partial automatic evaluations referred to the individual factors, are examined jointly to the purpose of defining an integrated score, representing a preliminary synthetic evaluation of the creditworthiness, optimised on the basis of statistical models developed on wide and representative sample of the Italian economy. Such evaluation is at disposal of the rating analyst who, relying on their experience and on other available information not considered within the score, autonomously expresses their opinion on the creditworthiness of the rated company. The analyst’s evaluation can differ even significantly from what elaborated by the statistical model. The modular structure permits to better evidence the assessment of each individual factor and facilitates the understanding of the impact of each area of analysis.

Exhibit 24 – Cerved Rating Agency credit rating methodology



The estimation of PD is the effect of the conditioning of the key rating factors to the hypothesised scenarios. The key rating factors of Cerved Rating Agency methodology are:

- Cerved Group Score (hereinafter also called CGS), derived from a set of statistical modules each one indagating different areas of analysis;
- The risk assessment performed by the analyst, relying on the analysis of the:
    - ✓ Financial situation of the rated entity;
    - ✓ prospective trend of the company;
    - ✓ payment profile of the company.

Each of these key rating factors is stressed according to the simulative scenarios. Specific modifiers are set accordingly on these key rating factors depending on the macroeconomic situation.

Simulation approach

In order to run the simulation over the portfolio it is necessary to follow a step-by step process that combine both qualitative and quantitative analyses. The first step is the definition of a multiple scenario framework: the creation of several forecast scenarios that vary based on different outcomes with respect to key risk factors allows to explore a range of possible outcomes and assess how different risk factors can influence the outcome being analysed. According to the scenario assumptions, the simulation process involves a differentiated stress analysis of some key corporates' financial ratios based on corporates sector and size; the main areas of analysis are the firms 'profitability, the ability of a company to meet its interest expense payments and its financial leverage.

More explicitly, the steps are as follows:

1. Scenario definition and selection of modifiers;
2. Calibration of modifiers' weight;
3. Conditioning of the key rating factors with respect to the selected modifiers;
4. Application of the proprietary statistical models;
5. PD estimation.

Each phase of the aforementioned process is further described in the following sections.

Scenario definition and selection of modifiers

In this section we present the framework of the three-fold scenario used to generate the default risk predictions.

This section introduces the prospective credit risk projection exercise. The process starts with a critical phase of the Credit Outlook, namely the comprehensive and detailed research on all the factors which might have an impact on the credit risk of Italian NFCs in the near future. More precisely, the analysis concerns the key credit risk drivers relating to macroeconomic, financial, geopolitical and sustainability issues. The scenario analysis is fundamental to project the credit ratings, and therefore the probability of default, of companies into the future. The study defines three distinctive scenarios which might occur during the forecasting period: the baseline scenario, the intermediate scenario and the hard scenario. The scenarios differ in the severity of their events and the likelihood of their occurrence, with the baseline scenario the most likely and less severe scenario of the three and the hard scenario at the opposite end of the spectrum, whilst the intermediate scenario is positioned between the two.

General aspects

For simulation purposes, according to the premises mentioned before, Cerved Rating Agency has proposed a number of hypotheses aimed at defining the risk drivers considered in its rating models, in order to analyse the evolution of the credit risk for Italian non-financial corporates.

Scenarios

For the sake of this study Cerved Rating Agency has considered three scenarios, varying by the severity of the impact and the probability of occurrence. More in detail, the baseline scenario can be identified as the most likely to occur, followed by the intermediate scenario and the hard scenario following a decreasing likelihood of occurrence; in terms of scenario severity, the hard scenario can be classified as the most severe scenario, followed by the intermediate and the baseline. Below a brief description of each alternative scenario has been provided:

- the **baseline** scenario: geo-political tensions are expected to persist all over the 2024 but spillover risks would be more manageable. In the first half of 2024, economic activity is expected to remain subdued as high funding costs remain a drag on consumer spending and corporate performance; in the second half of the year confidence indicators are expected to improve as inflation approaches central bank targets and interest rates cuts are expected. Commodity prices remain exposed to geopolitical developments: continued attacks to the maritime traffic in the Red Sea poses serious risks to price volatility and supply chains stability; nevertheless, in this scenario we assume that the disruptions would soften, and a normalisation would occur within the first semester of 2024. Finally, we do expect the entire payments of the two NRRP instalments to Italy by Europe and the full deployments of the funds.
- the **intermediate** scenario: assumes a worsening economic conditions as a consequence of a potential escalation of the conflicts in place, a procrastination of rate cuts by ECB due to sticky inflation and delays in the NRRP implementation. Red Sea tensions would persist well over the first semester of 2024, materially impacting commodity prices and the global supply chains. The intermediate scenario has a lower probability of occurring, but the credit risks are more tilted to the downside compared to the baseline scenario.
- the **hard** scenario: characterised by a significant escalation of the current international crisis, an extension of conflicts to other countries and serious deterioration of the USA-China political relations. At the same time, a stagflationary environment both in US and EU will take place with worsening job market and higher prices. Central banks would start a new interest rate hike cycle, making even more difficult for corporates and households to access financial resources. On top of that, Italy economic context would be further

weakened by the stop of the NRRP disbursement. The hard scenario incorporates the highest severity in terms of credit risk and the lowest probability of occurrence.

Calibration of modifiers' weight

The main features for each scenario are synthetised in a conceptual scheme weighting the probability and the severity of each component of the scenario, as described below:

Exhibit 25 – Scenarios overview

PROBABILITY OF OCCURRENCE

BASELINE SCENARIO	INTERMEDIATE SCENARIO	HARD SCENARIO
Geopolitical uncertainties remain but spillover effect risks to be moderate	Risk of escalation of geo-political relations in the short run	Serious deterioration of geo-political relations worldwide
Stable economic activity in the first half of 2024, gradual pick-up in the second half	Marked slowdown in the first half of 2024 and no significant improvement in the second half	Stagflationary environment in 2024 both in EU and US; serious growth headwind in China
Disinflationary environment to persist in 2024	Headline inflation to slow down but core inflation to remain sticky	Both headline and core Inflation to climb back to 2022 levels
ECB to cut rates in the first semester of 2024	ECB to cut rates in the third quarter of 2024	ECB rate hikes to resume in 2024; severe credit crunch in EU
Red Sea tensions to soften in 1H 2024; no significant disruption expected and no persistent impact on commodity prices	Red Sea tensions to persist in FY 2024; risks of commodity price shocks remain considerably high	Red Sea tensions to further escalate; commodity prices to reach new highs; serious global supply chain disruptions
Full deployment of the National Recovery and Resilience Plan (NRRP)	Delays in implementation of the National Recovery and Resilience Plan (NRRP)	National Recovery and Resilience Plan (NRRP) disbursement stop due to political issues

SEVERITY

Source: Cerved Rating Agency

Adopting a qualitative and quantitative approach, the main aspects of the scenarios are reflected on the key rating factors, namely CGS and the three parameters composing the simulated analyst risk assessment. The magnitude of the modifiers on the key rating factors is differentiated by sector and size.

Conditioning of the key rating factors with respect to the selected modifiers

The present step involves the forecast of the variables which make up the companies' financial structure, payment habits and profitability trend. The forecast is also performed on the CGS. These variables are key in determining how the firms' creditworthiness will fare in the future. The forecasts are carried out based on the three possible future scenarios defined in the previous step. The financial structure, the profitability trend and payment habits are tested through a quali-quantitative approach which projects the impact that each scenario would have on the business risk and financial profile of companies. The analysis is performed in an aggregated manner over the entire sample, also introducing discretionary factors like the sector and size of firms, amplifying the granularity of the process.

The conditioning of the financial situation of the companies is performed through the forecast of their debt sustainability and the robustness of their financial ratios. The forecasts are carried out for limited companies specifically.

More in-depth, the tested financial ratios which define the overall financial structure parameter are the following:

- EBIT interest coverage;
- Net financial debt (NFD)/EBITDA;
- NFD/equity;
- Debt ratio (only in the presence of condensed financial statements).

Secondly, we perform a thorough investigation on the outlook of companies' payment habits. Indeed, the scheduling of payments and the ability to timely and effectively meet economic obligations is a crucial aspect of a well-run business. This parameter is meant to estimate the expected payment ability of the rated company.

Furthermore, the evaluation process considers the companies' trend, and involves the identification of criteria that standardise assessments on the historical and forward-looking performance of the evaluated subject, also in relation to sectoral data.

Lastly, the CGS scores are also conditioned with respect to the expected scenarios, defining specific evolutions according to the sector and the size of the rated company.

Application of the proprietary statistical models

After the definition of the scenarios and the application of the modifiers, the combination between the analytical risk assessment and the CGS is automatically run leveraging on the proprietary statistical model of the rating agency, that weights the two components. The outcome is the rating proposal that is considered as a proxy of the evaluation that the rating analyst would have issued in the condition given by the hypothesised scenarios.

PD estimation

The last step is the calculation of the PD values, differentiated by relevant driver. The calculation is purely given by a simple average of the average PD rating classes. The average rating classes are the mean PDs attributed to each rating class, simulated by the steps described before.

Outcome

In this chapter we present the results of the Credit Outlook estimations, providing different views of the default probability forecasted.

Expected default probability of portfolio

In our opinion in 2024 the creditworthiness of the observed Italian non-financial companies would slightly improve; the probability of default 2024 according to our baseline scenario would reach **6.13%**, -1.5% compared to 2023 PD.

The results of the estimations are presented in the table below:

Exhibit 26 – Expected PD evolution by scenario

PD DEC 2023	PD DEC 2024– BASELINE	PD DEC 2024 – NTERMEDIATE	PD DEC 2024 – HARD
6.22%	6.13%	6.39%	6.82%

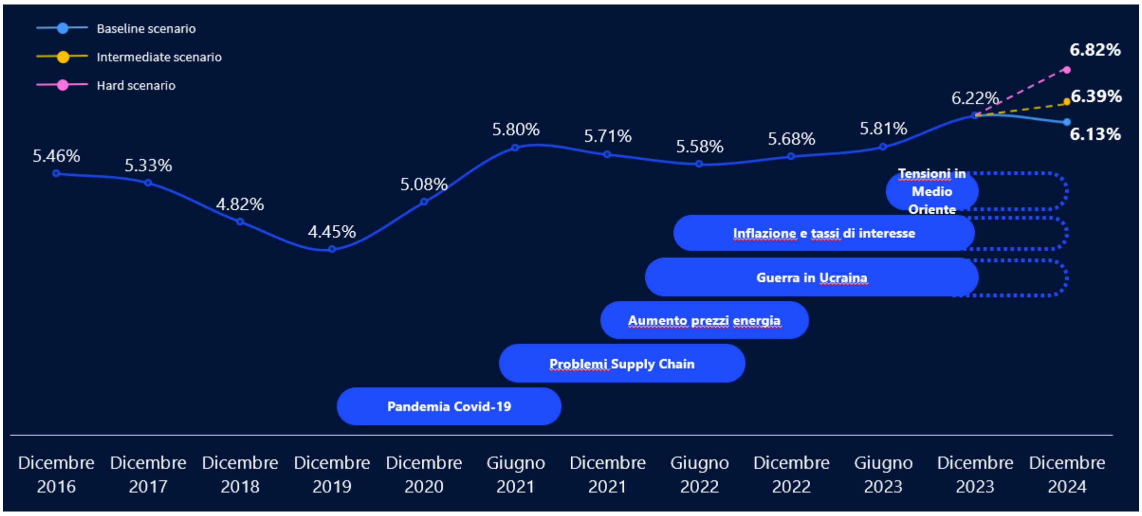
Source: Cerved Rating Agency

In the baseline scenario, the credit risk expressed by the default probability would moderately soften by almost 2%. The general credit risk level in 2024 is assumed to remain close to the highest levels recorded at the end of 2023 due to protracted geopolitical tensions and high cost of financing. Nevertheless, particularly in the second half of 2024, better financing conditions, constructive inflation dynamics and a resilient job market would support a gradual improvement of the corporates credit risk.

In a gloomier scenario, the intermediate one, the PD is expected to rise by 2% as a consequence of a more challenging economic context. Further escalation of geopolitical tensions would mine households and business confidence, delaying investments and consumptions rebound. More volatile price dynamics would force Central Banks to delay rate cuts, worsening the financial situation for fragile corporates.

Finally, in the worst scenario, serious economic depression combined with higher inflation, financing costs and conflicts extensions to other countries would create a very challenging environment for corporates, reflected by a default probability that would rise by more than 9% to 6.82%.

Exhibit 27 – Evolution of portfolio default probability and scenario forecasts

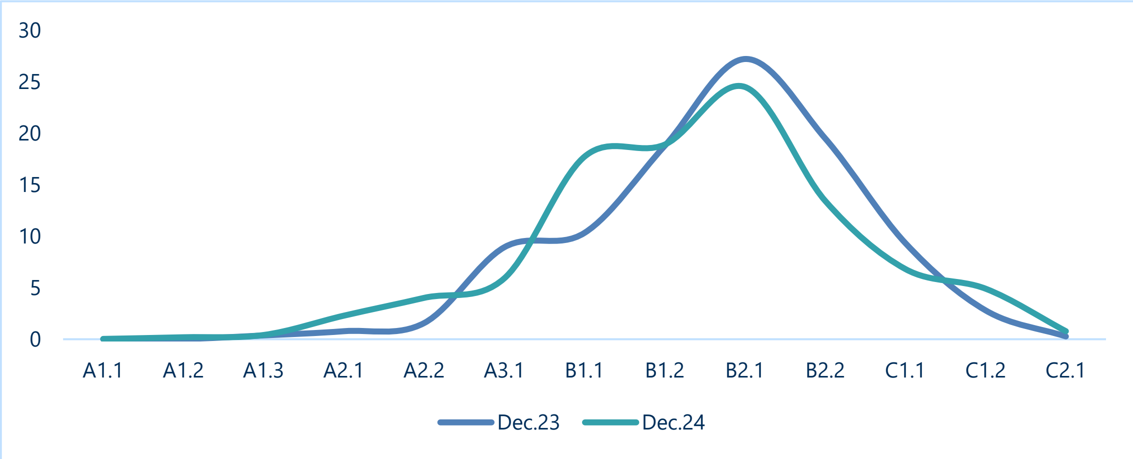


Source: Cerved Rating Agency

From now on, the result detailed description will focus on the baseline scenario.

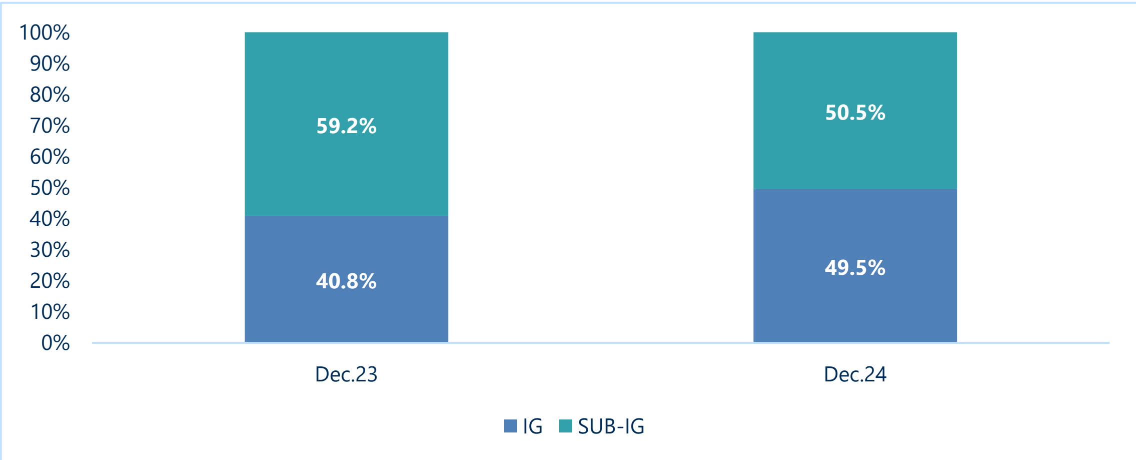
To better understand the current and projected rating distribution we would like to draw the reader's attention to the chart in Exhibit 28. The plot highlights that corporates with B2.1 rating class represent the mode of the distribution with **27%** of frequency as of December 2023. The modal rating would be confirmed also in the baseline projections as of December 2024, despite the frequency is expected to lower to **25%**. Nonetheless, it is important to stress that credit rating at the lowest end of the credit quality spectrum (i.e. corporations with C1.2 or lower rating) are foreseen to slightly increase. The low-quality credit segment remains relatively small compared to the overall portfolio, but these divergent developments suggest that amidst an overall improved credit outlook, weaker corporations still face significant challenges. Focusing on the investment grade share plotted, as of December 2024, IG corporates are expected to rise to **49.5%** compared to **40.8%** of December 2023, suggesting an improvement of the aggregate rating profile but a level of credit risk still tilted to the more vulnerable rating classes.

Exhibit 28 – Rating distribution (%) as of December 2023 vs. as of December 2024



Source: Cerved Rating Agency

Exhibit 29 – Portfolio Investment grade rating share



Source: Cerved Rating Agency

Sector breakdown

In this section are reported the results of the PD projections with a breakdown by macro-industry.

Exhibit 30 – Default probabilities forecast, macro-sector breakdown

MACROSECTOR	PD DEC 2023	PD DEC 2024 – BASELINE	PERCENTAGE VARIATION
Manufacturing	4.71%	4.66%	-1.2%
Wholesales and retail	5.90%	5.93%	+0.6%
Construction and real estate	8.71%	8.69%	-0.3%
Services	7.34%	7.02%	-4.4%
Other sectors	6.18%	6.08%	-1.8%

Source: Cerved Rating Agency

Overall service industry is projected to experience the largest PD decrease (-4.4%); these corporates that were heavily affected by pandemic restrictions, are expected to continue over the path of stabilisation of their credit risk. Tourism related activities and business services would benefit from improving households' real incomes, particularly in the second half of the 2024. Positive credit risk evolution is forecasted also for Manufacturing industry although with a remarkable dispersion among sub-sectors. Constructions and real estate would maintain a stable credit risk profile while retailers default probabilities are expected to slightly increase mainly for durable goods segments.

Size breakdown

Beside the analysis by sector, the following table describes the evolution of the PD by size of the company:

Exhibit 31 – Default probabilities forecast, corporate size breakdown

SIZE	PD DEC 2023	PD DEC 2024 – BASELINE
Large	3.36%	3.21%
SME	7.40%	7.34%
Total	**6.22%**	**6.13%**

Source: Cerved Rating Agency

The sizing effect has an impact on the riskiness of the considered portfolio. As already evident in the initial values, the risk levels of larger companies are lower than the rest of the sample. Such behaviour is confirmed across all the simulation scenarios in a proportional way. In this context, it is worth to notice a set of key elements:

- larger counterparties have demonstrated a better ability to transfer price increases to smaller business partners and final consumers; in this sense, a pricing power would be preserved also in 2024, lowering risks of margin contraction;

- small corporates have shown more difficulties to access bank loans and other financial sources; in a context of high financing costs, smaller firms would be more fragile and exposed to higher financial spreads;
- the global increase of the riskiness in the hard scenario is more relevant and has a widespread effect across all the company types.

Geographic area breakdown

Beside the analysis by sector and size, the following table describes the evolution of the PD by geographical area of the company (place of the headquarter):

Exhibit 32 – Default probabilities forecast, geographical area breakdown

GEOGRAPHICAL AREA	PD DEC 2023	PD DEC 2024 – BASELINE
Northeast	5.36%	5.11%
Northwest	5.87%	5.64%
Centre	6.98%	7.12%
South and Islands	7.61%	7.89%
Total	**6.22%**	**6.13%**

Source: Cerved Rating Agency

The results presented highlight a marked differentiation in PD evolution over the next 12 months. North-Italy located firms are expected to improve their credit risk profile while the centre, south and island corporates PDs are projected to increase.

Sectorial Credit Outlook

In this section we present a selection of both sectors whose PDs are expected to decrease the most and sectors whose PDs are expected to increase the most. According to our estimation, services-relates sectors would experience lower probability of default over the next 12 months as real income stabilises and business confidence improve, particularly in the second half of the year. Tourism, accommodation and food services are seen to improve their credit risk profile by more than 10% but the overall PD level remain the highest in the portfolio, suggesting sectorial intrinsic fragility. Information and communication corporates are expected to benefit from digitalisation investments via NRPP, improving revenues and profitability. Stable and positive outlooks will prevail also for pharmaceutical manufacturers and retailers that significantly improved revenues and margins over the last years and are expected to confirm solid financial fundamentals.

On the other hand, most of the rating downgrades will be concentrated to few sectors, perceived as particularly vulnerable. We believe that some manufacturing sectors, particularly exposed to high competition and transitional ESG risks like Rubber & Plastic would experience some difficulties and we do not envisage opportunities for a significant risk profile improvement in 2024. Another sector that is expected to show a slight deterioration in credit risk is textile manufacturing, also due to the importance of the Red Sea traffic for raw materials imports. Even though the situation is assumed to normalise in the second half of the 2024, persistent headwinds would weigh on textile manufacturers performances, resulting in a PD increase by 2%. Finally, we do not envisage a significant improvement in the credit profile for agricultural corporates: high soft commodities volatility and increasing climate change risks pose a serious threat to the historically weak business fundamentals.

Exhibit 33 – Default probabilities forecast, top and worst sectors

DECREASING FORECAST PD SECTOR	PD DEC 2023	PD DEC 2024
Tourism, accommodation services	12.01%	10.80%
Information and communication	5.38%	5.12%
Pharmaceutical industry	5.11%	4.79%

INCREASING FORECAST PD SECTOR	PD DEC 2023	PD DEC 2024
Textile	6.68%	6.82%
Agriculture	6.96%	7.22%
Rubber and plastic	4.34%	4.38%

Source: Cerved Rating Agency

Manufacturing (except the specified subcategories)

Probability of default outlook: modest decline

We envisage a moderate decline in default probability for manufacturing sector. The Italian manufacturing corporates will manage to partially mitigate the negative effect of the slowdown in the German economy thanks to its significant export share and its diversification of target markets. The sector continues to be fuelled by the domestic demand, which is expected to grow slightly in 2024 thanks to a higher disposable income, as shown by the growth in consumption in the first few months. The gradual decline in inflation should further help domestic demand to hold up.

Manufacturing – Equipment

Probability of default outlook: stable

The sector could benefit from the expected financial conditions easing in the second semester of 2024. However, the sector is burdened by moderating factory orders at the end of 2023, the weakened fiscal support related to 4.0 Industry and the delays in the 5.0 Transition Plan, which is necessary to give new impetus to investments related to environmental issues and digitisation.

Electricity, gas, steam and air conditioning supply

Probability of default outlook: decline

Despite the reduction in corporate revenues related to a price effect and the greater selection of customer portfolios carried out in recent years, the general alignment of the spreads on much higher values than in the past have led to a decisive economic and capital strengthening of all the electricity and gas providers. Despite the end of the protected market (*Mercato tutelato*), outlook for 2024 remain positive, as we expect a more stable landscape in terms of commodity prices and consumption. We expect industry participants to continue to focus their attention on cost efficiency and on protecting profitability by embracing new business models that supports renewable sources of energy. Furthermore, in 2024 we expect no marked price-based competition, which will help supporting the sector's high margins.

Water supply; sewerage; waste management and remediation activities

Probability of default outlook: decline

Non-cyclical, defensive sector, this group is expected to show stable margins and cashflows. NRRP important investments in the water infrastructure, waste sorting and recycling, will be key for industry corporates.

Remediation activities remain particularly prone to regulation risk but, thanks to the progress recorded in the recent years, Italy ranks as one of the top European countries in terms of growth rate of recycling and packaging recovery. The demand for sustainable solutions will continue to rise, requiring new investment in technologies based on a customer-centric and sustainable approach, aimed at improving efficiencies and facilitating reuse. Expectations also reflect our view in terms of wider government interest and spending in this industry.

Constructions

Probability of default outlook: stable

This industry strongly benefited from Government aid like *Bonus 110* and *Bonus facciate* in the recent years; consequently, business activity has been improving over the last 3 years, particularly for smaller companies working on private residential construction. Larger players, on the other hand, are being positively affected by NRRP funds for infrastructure investments and are foreseen to improve back-log over the next years as NRRP funds deployment progress.

The question remains as to whether the growth in the public sector will be able to offset the decline in the private sector due to the Government decision to significantly reduce the budget for outstanding bonuses. From this point of view, we envisage a decoupling of credit default risk with large-sized corporates operating internationally that would experience margin improvement while small and medium-sized businesses focused on residential construction may face a slight profitability erosion and higher default rates.

Wholesale and retail trade

Probability of default outlook: modest increase

The retail sector in Italy in 2023 exhibited rising revenues triggered mainly by inflation. A significant performance dispersion characterises this macro-cluster with discretionary good retailers remaining the most exposed to the risks of weaker-for-longer demand and prolonged high financing costs. Nonetheless, mild turnover and volume increase is foreseen in some segments like the fashion and luxury, design and personal care; GDO and food discounts are expected to confirm the expansion of the recent years both in terms of volumes and margin although to a lower pace.

Transporting and storage

Probability of default outlook: stable

Transporting sector is expected to still experience a challenging environment due to geo-political risks and subdued business activity. 2023 probability of default was remarkably higher than pre-pandemic levels as the sector was affected by several issues over the last years, namely the increase in transport costs that could not be fully passed on to the end customer, causing a reduction of the already slim margins. Furthermore, the sector still suffers from high personnel costs caused by labour shortages. Nonetheless, in the last years, the sector has seen an increase in the concentration of companies, driven both by defaults and acquisitions, which is generating great opportunities for the players who survive in the market. In this context it becomes crucial to transition towards an efficient business model, by reducing empty journey and investing in ever greater logistics automation and the adoption of effective management systems (e.g. for effective stock management). Intermodal transport continues to represent a small share of total transport, especially with reference to the combination of road + train, hampered by an outdated infrastructure network at National level. As far as logistics is concerned, inadequate premises may become an important factor; in any case, there is a growing trend towards outsourcing and the integration of various elements of the supply chain process in order to improve efficiency, flexibility and overall business performance.

Despite very strong competition, we expect the median operating margins to remain steady as fuel prices are foreseen to remain well below 2022 peaks. However, global political uncertainties and related risks are strong with possible quick and sharp negative impact on business volumes and margins of the companies operating in these industries.

Tourism, accommodation and food service activities

Probability of default outlook: sensible decline

The credit risk for tourism, accommodation and food service activities has been historically high due to the smaller-sized typical corporates and high financial leverage expressed. Moreover, this cluster was one of the most exposed sectors to COVID-19 pandemic. All of this considered, the probability of default as of December 2023 stood at 12%, the highest value of the whole portfolio sample. 2024 outlook is sensibly brighter than the past, on the back of higher demand for entertainment services and improving real incomes in the second semester of the year. The sector is envisaged to consolidate the post-pandemic recovery path with large tour operators also reporting improved margins, although partly eroded by the sharp increase in financial expenses related to loans taken out during the pandemic period. Tourists presences for 2024 summer is foreseen rising and solid winter season pave the way for a sensible decline in credit risk for 2024. Revenue growth is seen to continue in 2024; accommodation and food service activities would attract new capital investments to help the ongoing transformation process and improve the accommodation infrastructure and services.

Information and communication

Probability of default outlook: decline

The sector is expected to confirm its positive trend consolidated over the recent years, boosted by the investment in the digitalisation of businesses and PA envisaged by the NPRR and by a likely increase in private investments supported by easing financing conditions in the second half of the year. According to forecasts, the Information Technology sector is expected to consolidate its growth in 2024, while the Telecommunication segment might have a more modest or even stagnant growth as it struggles with an increasing price competition.

Estimates indicate an average annual growth of the digital market in Italy of 4.5% in the period 2022-2026, with an expected value of almost EUR 92 billion in 2026 (EUR 77 billion in 2023). The driving forces remain the well-known trends, namely: (i) artificial intelligence; (ii) automation/robotics; (iii) cloud computing; (iv) cybersecurity; (v) IoT and smart city; (vi) development of 5G networks and new emerging technologies. In this sector, as in others, labour shortages have been a factor, alleviated in recent years by the increasing use of smart-working.

Real Estate

Probability of default outlook: stable

This sector is characterised by historically high PD due to high leverage and low liquidity levels. The most adverse outlook concerns the international context, with banks significantly exposed to the commercial real estate sector (e.g. in Germany or the US). In Italy the overall context remains challenging but real estate valuations are experiencing lower price volatility compared to other geographical regions like northern Europe or North America. Estimates point to a 2024 in slight recovery starting from the second half of the year onwards, supported by a different sentiment compared to 2023. In fact, the scenario for corporate investments would seem more favourable in 2024, with confirmation of great performances for corporates investments in logistics sites and plants.

Agriculture

Probability of default outlook: increase

Agricultural firms credit risk has been historically characterised by weak financial fundamentals with low cash reserves and high-capital structures, experiencing high levels of default probabilities. Increasing pressure on margins is expected to continue in 2024 combined with labour shortages. Moreover, climate change and stricter rules on CO_2 emissions by agricultural producers and firms will weigh on credit risk evolution.

Chemicals

Probability of default outlook: stable

The sector was heavily affected by the energy crisis in 2022 and has seen its production deteriorate both in Italy and in several European countries. Moreover, companies in the chemicals sector are experiencing some challenges related to the Red Sea crisis, with chemical groups signalling longer supply and delivery time. Recent data are showing mild improvement for energy-intensive sectors, posting a production rebound in the very beginning of 2024. This suggests that the downward adjustment of energy prices might start to see some supply-side effects. Looking ahead, the delayed delivery of imports from the Far East due to the Red Sea and Suez Canal disruptions might play a part in the recovering process. Transition risks remain elevated.

Metallurgy

Probability of default outlook: stable

The Italian metal products firms are still operating in a context of stagnating global demand, with some significant order reduction from important markets like Germany and China. A recovery in demand is expected in the second half of 2024, on the back of NRPP projects need for iron and steel. Looking ahead, production is set to remain capped over the first quarter of this year – but the situation could gradually improve from the second quarter if inflation remains under control, Red Sea tensions diminish and the expected improvement in orders indeed materialises.

Rubber and plastic

Probability of default outlook: modest increase

The firms operating in this sector have been exposed to significant challenges over the last two-year period marked by inflationary trends that have impacted the costs of raw materials and energy commodities; as a consequence, production decreased as confirmed by ISTAT data (in 2023 production in the rubber and plastics articles sector fell by -4.5% compared to the previous year). Despite so, the domestic industry continues to have an important position in global markets, but the competitiveness of the sector is impacted by the abatement of energy costs, still higher than those incurred by European competitors. Supply difficulties (delays/shortages) were progressively overcome in FY23, also thanks to strategic choices aimed at bringing the supply chain closer together; however, the persistence of problems in the Red Sea and their possible impact in the medium term, both in terms of delays and price rises. The 'green' transition remains a decisive factor for this sector, with growing needs for investment in recycling and in the sustainability of the production process.

Paper and packaging

Probability of default outlook: modest increase

This sector has been characterised by a poor production performance in 2023 due to lowered demand and falling prices. Energy costs went down significantly but remain still higher than those incurred by European competitors. The sector is still a strong industry on the continent, as Italy is the second largest paper producer in Europe after Germany, ranking first for household and sanitary paper; despite the significant problems of recent years, it has therefore shown resilience. Corporates in this industry are required to heavily invest in the ecological transition and still high financing costs pose further challenges to the firms' industry.

Textile

Probability of default outlook: increase

Textile industry is expected to face a challenging year as firms will experience supply chain and sustainability related issues. First, the fashion and textile industry's supply-chain volatility of demand over the past few years is set to continue as corporates are particularly exposed to so-called "bullwhip effect": small changes in consumer demand actually caused increasing large fluctuations both upstream and downstream.

The second point of attention is sustainability: textile, apparel, and fashion industries contribute significantly to global environmental pollution at every point of the supply chain. As ESG regulation becomes more and more stringent, corporates will face higher costs to access external sources of finance.

Finally, looking at the developments related to international crisis and particularly to the Red Sea maritime traffic, as already exposed in the dedicated section, one third of Italian imports in the fashion industry come through the Red Sea. In the hypothesis of no significant improvement of the situation, longer shipping routes and higher freight costs will have a negative impact on credit risks for this industry firms.

Automotive

Probability of default outlook: decline

2024 is seen by industry players as a year of challenges and opportunities. In recent years, the automotive industry has been impacted by the challenging macroeconomic environment, with negative variables slowing down growth (supply delays, problems in logistics, significant rise in production costs, lower investment capacity on the part of consumers). The global automotive market is expected to continue its gradual recovery with a 2024 in which demand for vehicles is seen to grow by 3%. In Italy, after the growth in registrations in 2023 (+19.3%), mainly caused by the fulfilment of orders from previous years, sales are expected to increase by around 4% in 2024. A special focus is placed on the energy transition, but full-electric cars are expected to account for only 4.2% of the total in Italy in 2024, with significant differences compared to other European countries.

In 2024 we expect the gradual resumption of production by manufacturers, made possible by the gradual, but still not total, resolution of critical issues in the supply chain (i.e. microchips). Furthermore, it is reasonable to assume somewhat of a price stabilisation after a three-year period marked by significant increases: after a certain stability in the first months of FY2024 (on values that are still high), new car prices could drop in their transaction value by 3-5% in the second half of the year, with an effect also on used car prices (+7% YoY in FY23) with a concomitant ageing of the car fleet (also in relation to transport/logistics companies).

Conclusions

In this paper we presented the process and the results of the simulation of the default probability for Cerved Rating Agency portfolio.

Assuming a baseline scenario, the credit risk for the sample of more than 14 thousand non-financial corporates is envisaged to slightly improve over the next 12 months to 6.13% from 6.22%, as declining inflation and better financial conditions in the second part of the year would support the economic cycle. Nonetheless, the slight improvement of the economic backdrop would not be sufficient to significantly decrease the aggregated probability of default as the credit risk for the Italian non-financial corporates remains very close to the highest levels ever recorded. Moreover, credit ratings at the lowest end of the credit quality spectrum are foreseen to slightly increase as these corporates remain significantly more vulnerable to a still challenging business environment.

Remarkable differentiation is expected to be found within sectors and corporates dimensions; in fact, financing conditions would remain challenging for the rest of 2024, with significant impact particularly for smaller businesses.

PD evolution dispersion is expected to be evident across sectors: while some service-related sectors and few manufacturing are forecasted to decrease their default probability, idiosyncratic risks would weigh on specific sectors like textile and agriculture corporates.

A sensitivity analysis has been run to explore potential evolution of credit ratings in case of more challenging conditions for corporates; the results of the multiple scenario forecasts show a worsening in credit ratings in the intermediate scenario characterised by a slowdown of the economic cycle, a potential escalation of the conflicts in place, a procrastination of rate cuts by ECB and delays in the NRRP implementation. Finally, in case of an extremely severe scenario (hard scenario), a further deterioration in default probabilities is expected with PD seen approaching a level of 7%.

Annex

The one-year forecast of credit ratings draw from the comprehensive and wide-ranging data on Italian companies held by Cerved Group S.p.A. Data used to forecast default probabilities of Italian NFCs cannot overlook information on corporates' description, namely their tax code, business name, city and region within which they operate.

Exhibit 34 – List of variables from CRA rated portfolio

VARIABLE	DESCRIPTION
Tax code	Tax code of the company
VAT number	VAT number of the company
Business name	Business name of the company
Activity status	Activity status of the company
Legal nature	Legal nature of the company
Ateco	Classification of econ. Activity
Ateco description	Description of classification of econ. activity
CGR score	CGR Score
Rating's expiry date	The expiry date of the last available rating
Analyst	Analyst rating the company
Approval date	Approval date of the rating
Approved rating	Signals the approval of the company's rating
Listed company flag	Signals whether the company is listed or not
Financial statement	Economic and financial data considered for rating issuance
Municipality	Municipality where the company is registered
Region	Region where the company is registered
Group membership	Indication whether company belongs to a group
Group holding name	Name of group holding
Payline score	Payments-tracking score based on proprietary platform
Adverse events score	Delinquency information
CGS	Cerved Group Score
Overall trend	Definition of the company's trend
Financial situation	Definition of the company's financial situation
Payment habits	Definition of the company's payment habits
Employees	Number of company employees
Size	Size of the company

CERVED RATING AGENCY RATING SCALE

AREA	CLASS	DESCRIPTION
Safety	A1.1	Large company, with excellent business and financial risk profile. Extremely strong capacity to meet financial commitments. Minimal credit risk.
	A1.2	Large / medium-sized company, with excellent business and financial risk profile. Very strong capacity to meet financial commitments. Very low credit risk.
	A1.3	Very good business and financial risk profile. Very good capacity to meet financial commitments. Very low credit risk.
	A2.1	Very good fundamentals and high capacity to meet financial commitments. Low credit risk.
	A2.2	Very good fundamentals and good capacity to meet financial commitments. Low credit risk.
	A3.1	Good fundamentals and good capacity to meet financial commitments. Low credit risk.
Solvency	B1.1	Adequate capacity to meet financial commitments. Potentially vulnerable to serious and unexpected changes in business, financial and economic conditions. Moderate credit risk.
	B1.2	Adequate capacity to meet financial commitments. Vulnerable to serious and unexpected changes in business, financial and economic conditions. Moderate credit risk.
Vulnerability	B2.1	Overall good fundamentals. Vulnerable to unexpected changes in business, financial and economic conditions. Credit risk is below average.
	B2.2	Evidence of weaknesses in business and / or financial profile. Vulnerable to changes in business, financial and economic conditions. Credit risk is substantial but not far from the average.
Risk	C1.1	Serious weaknesses in business and / or financial profile. The company could not meet financial commitments. High credit risk.
	C1.2	Very serious weaknesses in business and / or financial profile. The company could not meet financial commitments. Very high credit risk.
	C2.1	Very serious problems in economic and / or financial profile. The company could not meet financial commitments even in the short term. Maximum credit risk.

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