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The wholesale market for electricity

THE EVOLUTION OF PRICES AND POLICIES IN TICINO,
SWITZERLAND, AND THE EUROPEAN UNION

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Executive summary

The years 2020 and 2021 represented a sort of stress test for the wholesale markets for electricity in Switzerland and the European Union. The spreading of the Covid pandemic along 2020 caused indeed a collapse of prices and demand from the already low levels observed in 2019. The last quarter of 2020 and the first half of 2021 saw instead a slow pick-up along with the recovery of the world economy. Finally, the second half of 2021 saw an unprecedented price rally, hoisted by the dynamics of the global markets for fossil fuels.

Wholesale electricity prices: from historical lows to historical highs in just 18 months

The wholesale electricity prices recorded in Switzerland an average around 33.9 EUR/MWh in 2020 and 86.5 EUR/MWh between January and October 2021, amid the floor set by the dynamics of the German electricity market (30.4 EUR/MWh in 2020 and 76.3 EUR/MWh between January and October 2021) and the cap set by the Italian market (38.9 EUR/MWh in 2020 and 99.3 EUR/MWh between January and October 2021). According to the preliminary data, the last weeks of 2021 witnessed a further sharp increase in electricity prices, that will most likely translate in a further growth of the yearly averages of wholesale electricity prices for 2021.

Energy demand and supply amid the pandemics and a global shortage

The prices recorded in the Swiss and European electricity markets result from a number of shocks observed in the demand and supply side of the world and European energy markets.

The global demand for energy slumped indeed by -4.5% in 2020 and, according to the available preliminary data, bounced back by +4.6% over 2021. In Switzerland the contraction of demand observed in 2020 was deeper for primary energy (-10.6%) and milder for electricity (-2.6%). The preliminary data for the electricity market suggest a rebound around +5% in the first eight months of 2021.

The global energy supply went instead from a generalized oversupply in 2020 to an unexpected shortage in 2021. Along 2020, indeed, the global gas market hit historical lows, with prices hovering for several months around levels barely sufficient to cover production and transport costs for most of the producers. The European electricity markets were moreover flooded by a booming renewable-based production, that dragged the contestable demand further below the already low levels induced by the Covid crisis, hence further depressing the wholesale prices. The market equilibrium changed dramatically during 2021, with spot prices for gas, coal, and oil bouncing back under the pressure of a growing demand and a constrained supply. The average prices went from 9.8 EUR/MWh in 2020 to 35.2 EUR/MWh in the first ten months of 2021 for the gas traded at the Dutch hub TTF, from 50.1 USD/MT to 114.0 USD/MT for coal, and from 41.6 USD/bbl to 69.5 USD/bbl for oil. The European gas market experienced particularly strong tensions due to the relatively low level of gas storages in autumn 2021, the growing tensions with the Russian supplies (repeated delays in the commissioning of the North Stream 2 pipeline and low inflows along the Ukrainian route), and finally the increased use of hub indexation in the pricing formulas of long-term import contracts. The bullish trend of the gas and coal markets strongly impacted the European electricity markets, who also suffered in 2021 from low contributions from wind generation in Germany and hydroelectric plants in Italy and France. The competitiveness of gas and coal for electricity generation was also impacted by the surge of the EUA prices, that almost doubled from 24.5 EUR/MT of 2020 to 49.2 EUR/MT in the first ten months of 2021. The rise in the EUA prices, that further peaked toward the end of 2021 due to the expectation of stricter environmental policies, was however not sufficient to retain the coal-to-gas switch observed along 2019 and 2020. Despite the lower carbon intensity of gas-fired generation, indeed, the exponential growth of gas prices more than compensated the impact of rising EUA and coal prices.

Energy and environmental policies and the challenge of citizens' consensus

Next to the rollercoaster of energy markets, 2021 was characterized in Switzerland and the European Union by a lively debate on two intertwined topics: the ecological transition and the security of energy supply. In the background, moreover, a new overarching challenge started to emerge, namely the importance of citizens' and consumers' consensus for the achievement of the ecological transition goal.

The ecological transition saw indeed a first halt in Switzerland with the rejection of the new CO2 Law in a national referendum held in June 2021. The new CO2 Law was originally introduced to favour sustainable practices in energy consumption and collect resources to finance the achievement of climate neutrality by 2050. In the following months the Federal Government was then busy in discussing a counterproposal to the Glaciers initiative, a legislative proposal that should be evaluated by the Swiss citizens in a new referendum during 2022 and aims at including climate protection in the Federal Constitution. The Government's counterproposal aims instead at framing the climate protection efforts entailed in the Glaciers initiative and the rejected CO2 Law in a more realistic setting suitable to the needs and priorities of the Swiss citizens. The climate protection challenge was once again in the spotlight toward the end of the year, with the publication of the sixth IPCC report on climate change and the partial success of the Glasgow climate conference (COP26). In the European Union the debate on the burning environmental issues took stock of the achievement of the 2020 emission reduction target (also due to the Covid crisis) to bring forward ambitious proposals for the 2030 targets. The existing targets to 2030, described in the Clean Energy Package adopted between 2018 and 2019, were indeed soon regarded as insufficient to reach the "net zero" goal by 2050. Already in December 2019 the new European Commission thus put forward the European Green Deal, a new package of legislative proposals to increase the emission reduction target for 2030 from the current -40% to -55%. The legislative package was followed along 2021 by the publication of a set of wide-ranging implementation proposals named "Fit for 55".

The policies discussed in Switzerland and in the European Union to ensure the security of energy supply frame instead the achievement of a reliable and affordable energy supply within the block's decarbonization effort. In Switzerland the debate revolved around the need to manage the consequences of the failure in negotiating a framework agreement with the European Union to ensure a full participation of the Confederation in the European Internal Energy Market. In the European Union the discussions in the technical and representative bodies underlined instead on the one hand the importance of the Internal Energy Market as a tool to ensure the security and affordability of energy supplies, on the other hand the need of tackling the skyrocketing energy prices and introducing transitory measures to protect vulnerable consumers from dangerous increases in their energy bills.

The expectations for 2022

The new year opens with the prospect of a slow return to lower energy prices, albeit most likely higher than those recorded in 2019 and 2020. The speed of this convergence will depend on the evolution of weather conditions along the winter and early spring, the dynamics of the global economy, and finally the evolution of the geopolitical crises at the Eastern and Southern borders of Europe.

The Cantonal electricity companies and the ecological transition

The electricity suppliers of Canton Ticino may look at 2022 from a favourable position, thanks to their reliable and competitive hydroelectric generation capacities. The ecological transition will however require substantial investment to face the new technological, commercial, and regulatory challenges. In the downstream segment the transition will probably imply the adoption of a multi-vector perspective, with traditional suppliers increasingly taking over the role of enablers of the new market and consumption models, and developing the technical and cultural tools needed for this paradigmatic shift.