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What to watch: The fiscal costs of One Big Beautiful Bill, metal prices slump and unlocking geothermal energy

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In summary

- US: **"One Big Beautiful Bill" increases the risk of a self**-inflicted fiscal crisis. The OBBB sailed through the House in May but will face stiff opposition in the Senate this week, especially over planned Medicaid cuts and the phasing out of IRA energy tax credits and subsidies. The fiscal package – likely to be passed in autumn rather than by 4 July – includes the renewal of 2017 tax cuts, USD170bn of new tax cuts and a modest USD53bn of spending restraints, with an expected final cost of 0.4% of GDP compared to current policy. Offsetting extra customs revenues are unlikely to prevent the US deficit from rising above 8% of GDP next year amid rapidly rising interest expenses and dynamic federal outlays. With the fiscal picture rapidly deteriorating, bond market volatility is likely. Higher borrowing costs and tighter financial conditions would likely more than offset the growth-boosting effect of the OBBB amid a rise in precautionary saving and weak sentiment. This scenario could force the White House to engineer a fiscal U-turn and put debt on a sustainable trajectory. The worst-case scenario, albeit a tail risk, would see the Fed failing to contain spiking interest rates, and debt monetization leading to higher inflation and a sharp and rapid depreciation of the USD.
- Soft demand, safe havens, steep premiums: What **metal** prices tell us about the global economy. Industrial metals are slumping as global manufacturing slows, with copper down -14% from its 2024 peak and nickel plunging over -20%. China's weak recovery and Europe's ongoing manufacturing issues have dragged down demand, while rising output has deepened oversupply for steel and other metals. In contrast, gold has surged about +30% in 2025, breaking 3000 USD/oz as investors seek refuge amid US-China tensions and a weakening dollar. Central banks bought 240 tons in Q1 alone, signaling their intent to diversify reserves away from the USD. Meanwhile, US tariffs, which went up to 50% on steel and aluminum imports (except for the UK which remains at 25%), have driven Midwest aluminum premiums up +60% year-to-date, creating a price gap between global markets and US warehouses – and fueling further inflation concerns. These new tariffs could also mean up to USD2bn export losses for the metals sector in Canada over the remainder of the year, USD 1bn for Mexico, USD 0.6bn for South Korea's metal sector.
- Deep heat, steady power: Unlocking geothermal for the energy transition. Amid rising electricity demand and growing infrastructure challenges, governments are increasingly seeking stable energy sources beyond variable renewables. Deep geothermal energy is emerging as a promising complement, offering reliable, low-carbon baseload power, grid stability and a small land footprint. Recent technological advances have extended drilling depths to 8km, boosting efficiency and resource potential twelvefold and making geothermal one of the most widely available energy sources. Despite obstacles such as high upfront costs and regulatory hurdles, investment in next-generation geothermal projects quadrupled between 2021 and 2023. If cost-reduction trends continue, geothermal could supply 8% of global electricity by 2050, requiring an estimated USD2.8trn in cumulative investments.

US: **''One Big Beautiful Bill'' increases** the risk of a self-inflicted fiscal crisis

President **Trump's ''One Big Beautiful Bill''** (OBBB) sailed through the House in May but will face stiff opposition in the Senate. The fiscal package encompasses most of President Trump's campaign promises, with the renewal of the tax cuts from his first term, USD170bn of new tax cuts and a modest USD53bn of spending restraints (Figure 1). For households, the bill includes the exemption of income taxes on overtime pays and tips and, for corporates, the full expensing of R&D and equipment. Furthermore, the bill expands the 2017 Tax Cuts and Jobs Act of (TCJA) with new provisions such as a larger child credit for households and a larger pass-through deduction for business owners. The campaign promises of a 14% corporate tax for manufacturing businesses and the exemption of income tax on Social Security payments were left out, though the former has been replaced by a full expensing of domestic manufacturing facilities. Most of President Biden's flagship Inflation Reduction Act (IRA) green subsidies have also been repealed and are to be phased out by 2028. Furthermore, the bill removes ''transferability'', which incentivized companies with a wide range of tax liabilities to invest in clean energy. Another change is the timing of subsidies payments. Currently, projects qualify for tax credits from when construction begins and after them when operational. The new proposal awards credits only after operations begin. In total, new tax cuts – net of IRA cuts and excluding the renewals of TCJA provisions – will amount to USD110bn per year for the Federal government. On the spending side, outlays on Medicaid and food stamps will be restrained. However, the figures reported on the spending side are benchmarked against a baseline of ''current policy'' dynamic spending increases[1]: effectively, spending will be lower by USD108bn *relative* to this baseline but will still be increasing in absolute terms. On new spending, the bill allocates funding hikes for defense and border protection, echoing the President's top priorities.

[1] *Primary federal outlays have increased by +3.8% annually on average in real terms over the past 25 years.*

Figure 1: New tax and spending provisions in the House's "One Big Beautiful Bill"

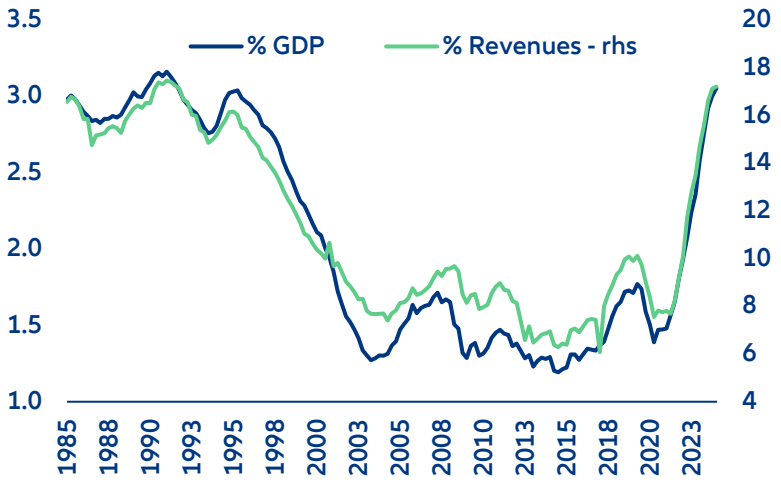
Campaign tax proposals	Amount
No tax on tips	10
No tax on overtime	31
No tax on auto loan interest	14
Expanded SALT deduction ($30k)	15
Total	69
Expanded TCJA provisions	
Larger child credit (+$500)	17
Larger standard deduction (+1000 single/2000 couples/4000 seniors)	32
Larger passthrough deduction (+3pp)	11
Total	60
Business investment provisions	
Full expensing of domestic manufacturing facilities	32
Full expensing of equipment	39
Full expensing of R&D	25
Expanded limit on interest deductibility	6
IRA green subsidies	-46
Total	56
Other business tax policies	-15
Spending cuts	
Medicaid	-47
SNAP (Food Stamps)	-28
Other	-33
Total	-108
Spending increases	
Defense	31
Border/immigration	24
Total	55
Total fiscal effect vs current policy ($bn/yr)	117
Total fiscal effect vs current policy (% GDP)	0.4
Increase of the structural deficit (% GDP)	0.7
Other deficit-augmenting and deficit increase:	
Extra customs receipts, 2025 (% GDP)*	-0.6
Extra interest expenses, 2026 vs 2024 (% GDP)**	0.7

*Sources: House of Representatives, Goldman Sachs, Allianz Research. *Assuming an average 9.2% effective tariff rate in 2025.**Assuming an average 4.2% and 3.6% short-term interest rate in 2025 and 2026, respectively, and a 4.3% and 4.1% long-term interest rate for both years.*

Senate Republicans are likely to push back on planned Medicaid cuts and the phasing out of the IRA energy tax credits and subsidies. Nevertheless, we expect the final cost of the bill to remain close to the current version: 0.4% of GDP against current policy, or 0.7% GDP of increased structural deficit. Many Senate Republicans represent poorer, rural constituencies that rely heavily on welfare benefits, while the IRA tax credits in solar, wind and geothermal disproportionally benefit Republican-held constituencies relative to Democrat-held ones. Given the razor-thin Republican majority in the Senate, every single vote will count to pass the OBBB. We expect some compromises to finally emerge, with the final budget bill containing fewer Medicaid cuts, offset by less generous tax cuts. But in total we expect the cost of the fiscal package to remain around 0.4% of GDP against current policy, or 0.7% of net fiscal easing (i.e. increase in the structural deficit), starting in 2026. However, the exact amount is highly uncertain: in particular, the savings from IRA subsidies cuts could end up being larger than budgeted, while tax cuts could end up costing more.

The OBBB is most likely to be passed in autumn, adding significantly to the deficit in 2026, amid an already rapidly deteriorating fiscal picture. The President is pushing for the bill to be passed by 4 July. However, disagreements between the House and the Senate mean that it is more likely to be passed after the summer recess. In any case, US fiscal policy is on an increasingly unsustainable path and the passing of the bill would make matters even worse. Strong GDP growth over the past few years has not prevented US gross federal debt from climbing rapidly: from 108% of GDP in 2019 to 124% in 2024. Entitlement program outlays are on autopilot, with governments unwilling to act given the unpopular measures it would take. Meanwhile, revenue collection remains small relative to GDP amid repeated tax cuts under Republican-led governments and limited tax hikes under Democrat-led ones. Moreover, elevated interest rates since 2022 have pushed up interest expenses extremely rapidly (Figure 2). In Q4 2024, they reached 3.1% of GDP and 17.3% of federal revenues, up from only 1.6% and 7.7% in Q1 2022.

Figure 2: US federal government interest expenses

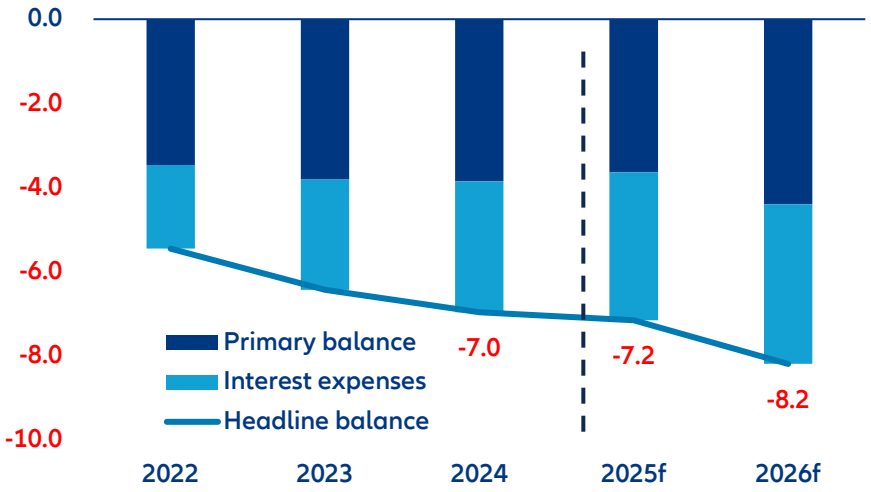


Sources: LSGE Workspace, Allianz Research

The US federal deficit could break 8% of GDP next year in a benign scenario, up from 7% of GDP in 2024. But if bond premiums rise, the deficit would likely be pushed up even higher, eventually forcing the White House to engineer a fiscal U-turn to assuage bond markets. We estimate that interest expenses will top 3.8% of GDP in 2026, assuming that interest rates are unlikely to drop much by then, particularly on the long end of the yield curve because of increasing term premia on US Treasuries. At 0.6% of GDP, the extra customs receipts that we expect will offset most of the cost of the OBBB. However, rising interest expenses, as well as dynamic entitlement spending, will keep pushing the deficit up. Based on benign assumptions of GDP growth (+1.5% in 2025, +1.8% in 2026) and market interest rates (around 3.5%-4.2% depending on the segment of the yield curve), we estimate that the federal deficit could surpass 8% GDP next year, against 7.2% this year and 7% in 2024 (Figure 3). But if investors start demanding a higher premium on US Treasuries because of mounting fiscal risks, GDP growth would be hit because of higher borrowing costs and tighter financial conditions (including lower equity prices). The impact of tighter financial conditions would likely more than offset the GDP growth-boosting effect of the OBBB because the private sector would likely increase precautionary savings amid weakening sentiment. The headline deficit would then be pushed even higher because of higher interest expenses and weak GDP-induced tax collections[2]. This would be the recipe for a fiscal crisis, where high interest rates would force the US government to scrap some or even all its fiscal plans.

[2] Even if the Fed managed to steer short-term interest rates down – which is not guaranteed in a scenario of increasing term premium, including on the short-end of the yield curve (i.e. pricing in high default risk) – the impact on interest expenses would be limited.

Figure 3: US federal deficit projection under the OBBB, benign scenario (% GDP)

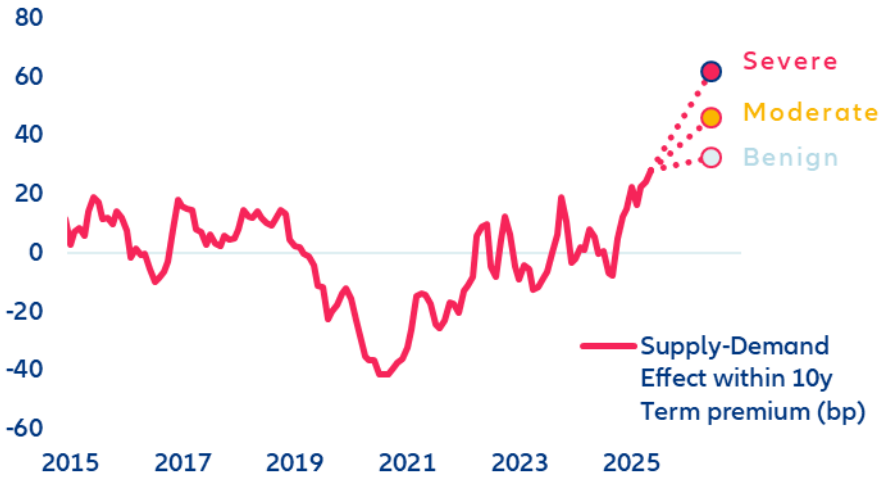


Sources: LSGE Workspace, Allianz Research

The worst-case scenario, albeit a tail risk, would see the Fed failing to contain spiking interest rates, and debt monetization leading to higher inflation and a weaker USD. This could occur if, for instance, the market does not believe that US debt will become sustainable, and that an outright default on nominal debt could happen. The Fed would likely intervene to try to stem spiking interest rates through debt monetization, but investors would demand even higher term premium. The result would be a sharp and rapid currency depreciation, followed by higher inflation.

Section 899 – A phantom menace for financial markets? US assets do not need a tail risk confidence crisis to get shaken by the OBBB. This provision allows for additional taxes on the income of foreign companies and investors, including dividends and coupons, from countries deemed to have punitive tax policies. The applicable tax rate could escalate by 5 percentage points each year, culminating in a maximum increase of 20 percentage points. This tax shock could significantly impact the demand for US assets and trigger outflows, exerting downward pressure on the USD and elevating borrowing costs for the US Treasury and corporates. The potential implications of Section 899 may not be fully priced by the market yet. Depending on the implementation, the impact could range from benign to severe. In a benign scenario, where only newly issued securities are subject to the provision (grandfathering), there could be a reduction in foreign participation in Treasury auctions, leading to a modest increase in the 10-year US Treasury term premium by 5bps. However, in a severe scenario the increase in the term premium could reach 34bps as foreign investors might not only reduce their presence in auctions but also proceed to net reduce their US Treasury holdings while remaining domestic marginal buyers will clear the market at higher yields due to a higher price sensitivity causing a more substantial increase in the term premium (Figure 4). The potential currency impact of Section 899 is also notable, with a downside risk to the USD of up to 5-6% in the severe scenario. Furthermore, the repercussions of provision 899 are not limited to the US. Higher yields and a diminished international investor base for US Treasuries could affect USD liquidity provision via the Eurodollar repo market, presenting risks for global risky assets.

Figure 4: Change in demand structure will increase US Treasury term premium

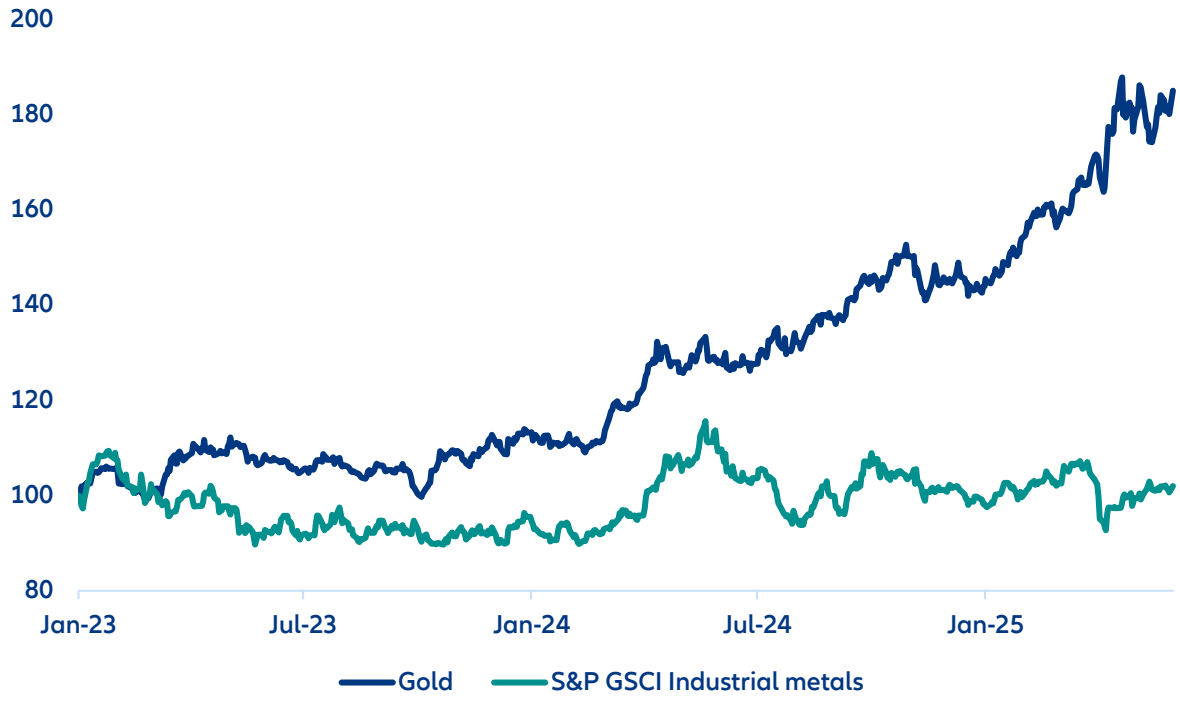


Based on D'Amico et al. (2019)
Sources: LSGE Workspace, NY Fed Allianz Research

Soft demand, safe havens, steep premiums: What metal prices tell us about the global economy

Industrial metals are losing their shine as manufacturing worries pile up. Copper, aluminium and other industrial metals have been under heavy pressure in recent months (see Figure 5). After an early-year rally fizzled, copper prices slumped below 9,000 USD/t, down roughly -14% from their spring 2024 peak. Nearly all major base metals followed suit, from nickel to zinc, as global manufacturing shifted into lower gear. China – which consumes half the world's copper – has seen its post-pandemic revival falter as economic growth slowed and the property downturn deepened. With real estate investment in China still declining, construction-related metal demand has sagged. Europe's industrial engine has also sputtered: European factory activity has been contracting since mid-2022 amid an energy crisis and high borrowing costs that have hit sectors like auto and machinery. The US has not been immune neither: US manufacturing output has been in mild recession, grappling with still-high interest rates and concerns around trade policies. Amid soft demand, supply factors have compounded the price weakness. Earlier surges in production – for instance, Chinese copper smelters ramping up output and European aluminium smelters gradually coming back online as energy costs eased – left markets well supplied. In the case of nickel, a wave of new mining projects and a flood of Indonesian output led to a glut: prices for this key stainless steel and battery ingredient collapsed over -20% in 2024. Similarly, aluminum prices have been capped by lackluster demand in Europe's auto and construction sectors, even as China's production nears official capacity limits. Even recent Chinese export curbs on rare earths did not manage to propel prices as demand concerns seem to dominate market sentiment. The slump in industrial metal prices is an ominous signal for the broader economy. Historically, falling base metal prices often means looming slowdowns. Unless demand revives, most metal prices should remain around current levels or decline further in 2025.

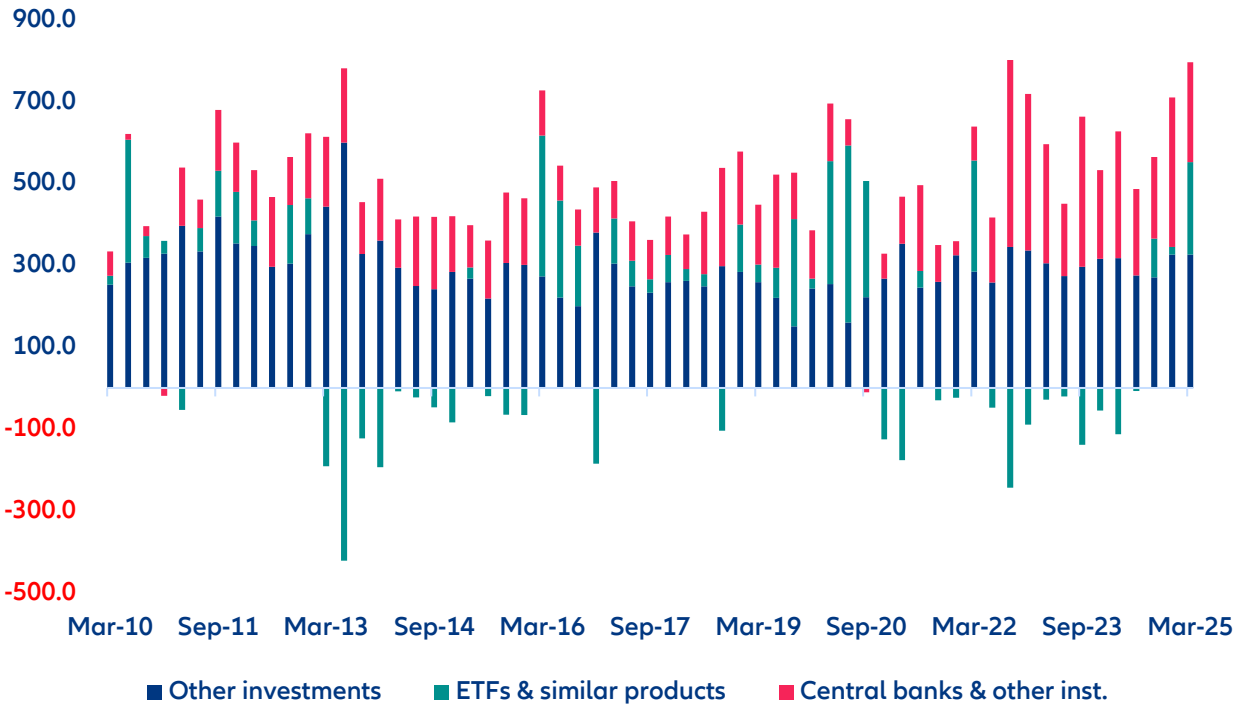
Figure 5: Gold and industrial metal prices (Jan. 2023=100)



Sources: LSEG Workspace, Allianz Research

Gold shines amid uncertainty and a move away from the dollar. In stark contrast, gold has been on a tear. The price of the yellow metal has surged to all-time highs in early 2025, driven by a flight to safety and deepening doubts about the stability of other (dollar-denominated) assets. Spot gold broke above the 3,000 USD/oz barrier for the first time in mid-March 2025, capping a historic safe-haven rally. Prices are up roughly +30% since the start of the year, after already hovering near record levels in late 2024. One key driver behind gold's performance is investor anxiety over geopolitical and economic stability. Gold is traditionally a refuge in times of turmoil, and recent events have given plenty of cause for caution. In particular, escalating frictions between the US and China have unnerved markets. Each new episode in the trade dispute sends investors scurrying for cover – and gold is a primary beneficiary. Another supportive factor has been shifting currency and interest rate dynamics. After several years of US dollar strength, we are seeing some cracks in the greenback's dominance. The dollar's rally has lost momentum amid expectations that the Fed may soon pause or even cut interest rates to support a slowing economy. A softer dollar makes gold (priced in USD) more affordable for international buyers, thus lifting demand. More fundamentally, central banks around the world have been quietly rotating out of dollars and into gold. During Q1 2025, central banks purchased about 240 tons of gold despite very high prices (see Figure 6). This de-dollarization trend, led by emerging markets from China to the Middle East, has provided a structural tailwind for gold prices. Policymakers in those countries cite a desire to diversify reserves and insulate themselves from US financial influence and sanctions, and gold is seen as a reliable alternative to holding US Treasury bills. The result is unprecedented official-sector demand underpinning the gold market. At the same time, financial investors have joined the gold rush and market participants are hedging against an adverse economic scenario.

Figure 6: Investor and central bank gold demand (metric tons)



Sources: World Gold Council, Allianz Research

Tariffs propel prices in US warehouses for some industrial metals. The return of protectionist trade policy under the second Trump administration is having a direct and inflationary effect on domestic metal prices in the US. Since early 2025, newly imposed tariffs on aluminum and steel imports, which went up to 50% recently (except for the UK which still benefits from a 25% tariff rate), have caused a sharp divergence between global benchmark prices and those recorded in US-based warehouses, such as those tracked by the Chicago Mercantile Exchange and Midwest delivery hubs. While global prices for industrial metals like aluminum and copper have softened due to weakening demand in Europe and China, the US market is experiencing localized price pressures driven not by demand, but by constrained supply. For example, the duty paid Midwest aluminum premium – which is charged to US buyers on top of the LME base price – has risen by about +60% since the beginning of the year, reflecting tightness in domestic supply chains exacerbated by tariffs. Similarly, inventories at US warehouses have drawn down more quickly than global averages, with traders citing restocking challenges and shipping delays caused by new import restrictions. This US premium is also visible in metals such as copper which are not (yet) concerned by tariffs (see Figure 7), highlighting broader concerns. The near-term effect of policy shifts has been to distort price signals and create regional imbalances. The result is a bifurcated market: cheap metals abroad, expensive metals at home – and growing unease among industrial buyers caught in the middle. Indeed, US buyers are now paying significantly more for metals than their counterparts abroad, eroding competitiveness for downstream sectors like automotive, packaging and construction. While US producers benefit from the price lift, manufacturers and consumers bear the cost, and this could feed into broader inflationary pressures. The new tariffs could also mean up to USD 2bn export losses for the metals sector in Canada over the remainder of the year, USD 1bn for Mexico, USD 0.6bn for South Korea's metal sector. Moreover, retaliatory measures from trading partners – particularly China and the EU – could trigger further turmoil.

Figure 7: CME-LME copper spread

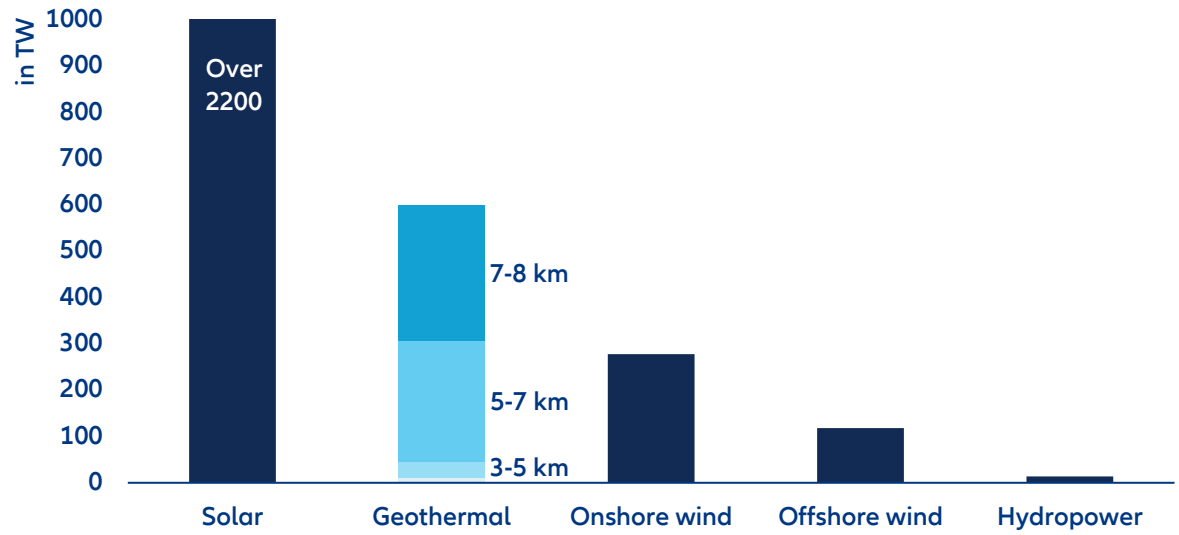
Sources: Bloomberg, Allianz Research

Deep heat, steady power: Unlocking geothermal for the energy transition

Amid rising electricity demand from electrification and data centers, and the growing infrastructure needs of intermittent renewables, governments around the world face mounting pressure to grow and secure electricity supply. With electricity consumption projected to increase by an average of +4% per year through 2027 – from +2.5% over the last decade – significantly more generation capacity will be required. At the same time, integrating more wind and solar into the grid raises overall system costs as additional infrastructure is needed to maintain grid stability and prevent escalating management expenses. This dual challenge makes it difficult to safeguard energy-supply reliability while still advancing green transition goals. As a result, governments are increasingly looking beyond variable renewables, (re-)turning, for instance, to nuclear power as a low-carbon baseload alternative. However, recent advancements in geothermal energy – such as enhanced geothermal systems (EGS) and closed-loop technologies – are positioning it as a promising complement to a renewable-driven energy system.

Deeper drilling has significantly enhanced both the efficiency and technical potential of geothermal energy. Historically, geothermal exploration was largely limited to depths shallower than 5km, confining its viability to geologically active regions – such as California or Iceland – typically located near tectonic plate boundaries. However, recent advancements in deep geothermal technologies, particularly Enhanced Geothermal Systems (EGS), have enabled projects to reach depths of up to 8km. This has increased the theoretical resource potential more than twelvefold. As a result, geothermal energy is now considered the most broadly available energy source after solar (Figure 8). As underground temperatures rise by about 25–30°C per kilometer on average, deeper drilling gives access to much hotter zones. This leads to greater energy output from geothermal systems while also extending reservoir lifespan as deeper resources are more thermally stable and less prone to rapid cooling, enabling decades of reliable energy production. These developments are making geothermal energy viable not just as a source of local heating, but also as an option for large-scale electricity generation.

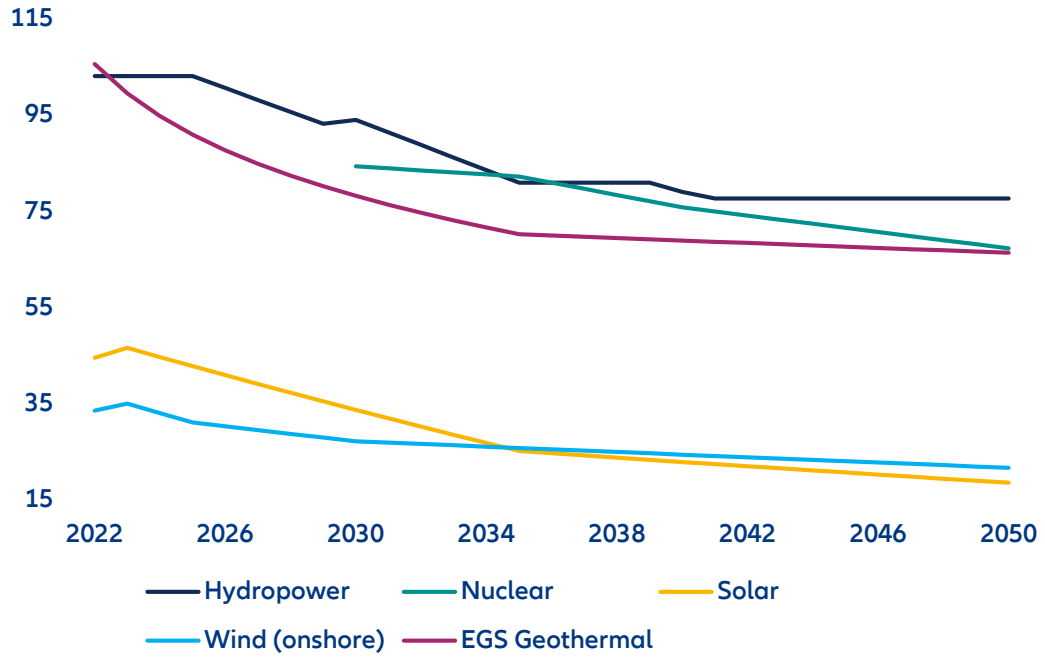
Figure 8: Technical potential of selected renewable energy technologies for electricity generation (TW)



Sources: IEA, Allianz Research

Electricity generation from geothermal energy has seen substantial cost declines, but the main benefits of the energy carrier go beyond power generation costs. Despite recent cost reductions for next-generation geothermal systems, the technology is still unlikely to match wind and solar in the near term when it comes to direct levelized cost of electricity (LCOE) alone (Figure 9). This is partly due to the site-specific nature of geothermal development, which can affect project viability and scalability. However, the International Energy Agency (IEA) suggests that the cost gap could narrow significantly, with low-cost scenarios projecting next-gen geothermal to reach a competitive USD 50/MWh by 2035. More importantly, key advantages of geothermal power go beyond direct generation cost. Its ability to provide constant, low-carbon baseload power makes it especially valuable in supporting growing electricity demand from energy-intensive sectors – such as data centers – which are expected to increase their electricity consumption by +130% in the US.

Figure 9: Levelized cost of energy comparison within low-carbon energy sources (USD/MWh)



Sources: NREL, Allianz Research

Additionally, geothermal electricity can help lower overall system costs and enhance grid stability. As geothermal power generation relies on rotating turbines, it inherently provides inertia to the power grid – a critical feature that helps maintain frequency stability. This capability reduces the need for additional balancing resources, such as battery storage or fast-ramping backup generation, lowering the cost and complexity of integrating variable renewables like wind and solar. By complementing intermittent sources, geothermal can help contain the rising costs of power system management, which have reached EUR2.5bn annually in Germany alone. Moreover, by contributing to grid reliability, it can help prevent blackouts – such as those recently experienced on the Iberian peninsula – and serve as a dependable, low-carbon alternative to nuclear power for delivering stable baseload electricity. Its relatively low land footprint – requiring just 7.5km2 per TWh, significantly less than solar PV (19.1%) and wind (10.4%) – is another advantage, alongside its potential to offer a viable decarbonization pathway for the fossil extraction industry by repurposing its workforce, subsurface expertise and existing infrastructure.

While geothermal energy offers significant benefits, the industry faces a number of challenges. Advanced geothermal systems are, to a large extent, still in the early stages of commercial deployment and are therefore not yet viable at scale. Comparatively high upfront capital costs – at a minimum of USD3,000/kW, more than twice those of wind and solar – along with development timelines averaging around six years and subsurface exploration risks continue to hinder broader investment. In many regions, permitting and regulatory frameworks remain ill-suited to geothermal development, causing delays and added uncertainty. Another challenge is the risk of induced seismicity as altering underground geological formations can increase seismic activity. While advanced monitoring has enhanced the detection and management of microseismicity in next-generation systems, effectively managing seismic risks and maintaining transparent communication with the public will be essential to securing long-term societal support.

Despite these headwinds, geothermal energy utilization is expected to grow in the coming years. Currently, the energy source supplies just around 1% of global electricity generation, and its contribution to energy systems remains modest. However, momentum is building. Early- and growth-stage investment in next-generation geothermal projects has quadrupled in just two years between 2021 and 2023, reaching USD420mn. If cost-reduction trends continue, the IEA expects that a fully developed next-generation geothermal market could supply 8% of electricity, 9% of industrial heat and 4% of centralized heating globally by 2050. Achieving this

potential would require cumulative investments of around USD2.8trn, with annual investments possibly rising to USD140bn. While this would be an ambitious target, it highlights the growing role of geothermal energy in the clean energy transition and shows its potential to become a relevant complement to other renewable energy sources.

These assessments are, as always, subject to the disclaimer provided below.

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