PopulAItion

PUBLIC INTELLIGENCE REPORT / 9 NOVEMBER 2026

A lead built on people and hours: Spain can win on total output and still trail on income per resident

Spain is forecast to outgrow the euro area and the UK through 2027. Whether it outperforms for a decade depends on output per hour, and the investable prize sits in the contracted enabling layer, not in scarcity.

THE EXECUTIVE JUDGEMENT

Spain's decade turns on one conversion: can an economy that has grown by adding people, hours and borrowed external demand turn that position into output per hour before the labour base, three external cycles and the housing constraint bind? The near-term lead is a well-supported forecast. The IMF forecasts Spain at 2.5% in 2026 and 1.8% in 2027, against 1.1% and 1.2% for the euro area. Over ten years we judge the lead in aggregate output over the euro area and UK probable, by a few tenths of a point a year. The EU-27 margin is smaller and unmeasured. On income per resident and output per hour, the US very probably stays ahead. For an investor with unlimited capital, the answer is the enabling layer (grid services, verification, port equipment, water measurement, pharma services, partnered housing), held through contracted revenue, measured outcomes and capped deployment.

> *Spain can win on total output and still lose on income per resident.*

01 / MARKETS AT A GLANCE

The verified figures and dated events that matter most to the judgement. Every figure is in the intelligence file with its unit, date, kind and source.

IMF forecasts Spain real GDP growth at 2.5% in 2026 and 1.8% in 2027, against 1.1% and 1.2% for the euro area

FORECAST PUBLISHED OCTOBER 2026 · OFFICIAL ESTIMATE

Sources 36, 56

Draft decree: 80% of data-centre consumption from renewables matched hourly; transitional route 60% peak coverage to end-2028, then 70% peak and 60% off-peak from 2029, conditional on accepting uncompensated disconnection

AS REPORTED 26 OCTOBER 2026, WITH LATER SUMMARIES OF COUNCIL OF STATE APPROVAL OF ITS OPINION ON 6 NOVEMBER · OFFICIAL ESTIMATE

Sources 07, 60, 61

Hydrogen: 312 registered projects, over €25bn potential, two final investment decisions in 2026 totalling 400 MW electrolyser; registered count down from nearly 400 in a year

2026, AS REPORTED 26–27 OCTOBER · OBSERVED

Sources 09, 13

TTF front-month gas €85.588/MWh on 6 November, down 5.61% on the day

6 NOVEMBER 2026 CLOSE · OBSERVED

Source 37

ECB deposit facility rate 2.50%, held on 29 October (main refinancing 2.65%, marginal lending 2.90%); market expects a move to 2.75% in December

29 OCTOBER 2026 DECISION; DECEMBER EXPECTATION AS OF EARLY NOVEMBER · OFFICIAL ESTIMATE

Sources 31, 32, 99

Spanish CPI flash October 4.9% y/y (core 3.1%); +0.6% m/m

OCTOBER 2026 · OBSERVED

Sources 29, 31

Industrial output since end-2019: Spain +10.9%, Germany −2.2%, France flat, Italy +1.1%

END-2019 TO OCTOBER/SEPTEMBER 2026 · OBSERVED

Sources 54, 65

IMF US real GDP growth 2.3% in both 2026 and 2027; Spain 2.5% (2026) and 1.8% (2027), so Spain leads by 0.2 points in 2026 and trails by 0.5 in 2027 (calculated)

2026–2027 FORECASTS · OFFICIAL ESTIMATE

Sources 33, 36

THE CALENDAR AHEAD

29 November 2026	Spanish general election
9 December 2026	Fed FOMC decision with projections
17 December 2026	ECB monetary policy decision with new projections
13 November 2026	Spain final October CPI

02 / THE EXECUTIVE NARRATIVE

A real lead, and a forecast

The near-term evidence converges. Alongside the IMF's 2.5% and 1.8%, Airef forecasts 2.6% and 2.2%, CaixaBank 2.6% and 2.0%, and the European Commission 2.4% for 2026 against 0.9% for the euro area. Relative industrial output corroborates it: since end-2019 Spain is up 10.9% and Germany down 2.2%, with France flat and Italy up 1.1%. Third-quarter GDP data are consistent with the forecasts, but they cover only one quarter. These are forecasts and a cyclical record, not a decade, and most comparisons are against the euro area rather than the EU-27 the question names. The equity market has noticed: the IBEX 35 closed at 19,754 on 9 November, about 14% up on the year by our calculation. A forecast lead is not a return signal.

Sources 36, 45, 54, 56, 76

> *Spain can win on total output and still lose on income per resident.*

Why total output and income per resident can part company

Aggregate growth is output per hour, times hours, times the population share. Spain's lead has come largely from hours and population, which can persist. Output per hour has stayed near 74% of the EU-8 average and has been broadly flat for two decades, as reported by BBVA and summarised in secondary work. Aggregate outperformance can therefore continue without any convergence in living standards. An illustration, not a forecast: 2.5% against 2.0% a year for ten years compounds to about 28% against 22%. The metric decides the verdict, so any 'Spain beats Europe' claim needs its measure and its base.

Sources 53, 55

The sharpest challenge to the consensus holds that the decade verdict may be negative on the measures residents feel. The lead is decelerating: Q3 employment reportedly grew 0.3% on the quarter, with private jobs falling by 16,300 while public jobs rose by 89,900 (neither figure independently traced). NGEU absorption is expected to fade in 2027, and unemployment rose to 10.18% in Q3 from 9.87% in Q2. Unless output per hour moves, the lead fades into a 1.5% economy with a fiscal and housing problem. We keep the aggregate verdict probable rather than established, because hours and population arithmetic can sustain it. What separates the readings: output per hour

against the EU-8 and EU-27 on a common definition, the private employment path from Q4 2026 to Q2 2027, and how NGEU is replaced by private investment. A related possibility is that credential recognition and care gaps hold resident labour out of matched work. It is unmeasured, but a cheap matched pilot could test it, and it is the one labour lever that does not depend on new migration.

Sources 28, 53, 56

A position rented from others, and a US that owns the frontier

Part of the lead is borrowed. German industrial output is still below its end-2019 level, French private real wages fell 1.1% on the year, and the Bank of England raised Bank Rate to 4% on 5 November. Yet the OBR has UK trend productivity rising from 0.7% in 2027 to 1.1% by 2031, so peer weakness is not guaranteed to last. A lead that depends on peers staying weak is rented, and it is revalued if they recover. The investment case must therefore not require weak peers: contracted, peer-independent assets hold value in both states.

Sources 02, 54, 71, 85

Against the US the aggregate contest is close. The IMF has the US at 2.3% in both 2026 and 2027, so Spain leads by 0.2 points this year and trails by 0.5 next. US payrolls rose 165,000 in October with unemployment at 4.1%. Over ten years the result depends on whether US frontier investment converts into productivity, and a narrowing US labour base would slightly help Spain on aggregate. On per-resident measures the US very probably stays ahead. The US comparison is therefore a bet on the AI cycle. If AI investment converts, the US outruns Spain on every measure and Spain's data-centre role is a sub-contractor's. If it does not, US growth falters and the Spanish data-centre thesis is damaged anyway. Either way, that thesis is a call on a cycle decided largely elsewhere.

Sources 33, 36, 52, 95, 96

One system, not four stories

Three external cycles feed Spain through shared channels: AI capex, the Gulf energy shock and the rate path. Spain's cheap electrons are cheap in solar hours and gas-priced in the evening, so the Gulf shock enters through the marginal hour. TTF closed at €85.588/MWh on 6 November, down 5.61% on the day, and Spanish October CPI flashed at 4.9% (core 3.1%). The ECB deposit rate is 2.50%, with a move to 2.75% expected in December; the market prices an 85.7% probability of a Fed hike on 9 December (market-derived). Spain's public debt is forecast by Airef at about 95.4% of GDP at the end of its forecast horizon, and it refinances every year. AI-bond issuance competes for the same savers, so the AI cycle can lift Spanish borrowing costs even if no Spanish campus is built. A 50bp rise in financing cost could remove a large share of a development margin. We give the rate channel first-order weight and watch the Spanish–Bund spread on a primary series: no verified spread figure is in hand, so treat any threshold as a monitoring level. Underwrite housing and infrastructure at a higher-rate scenario, and hold Spanish sovereign bonds as a liability match, not an outperformance trade.

Sources 29, 31, 32, 37, 42, 47, 83

The shared-customer warning for 'defensive' assets

Storage, land and water assets built around a campus share one customer for power, water and heat. If an AI-capex correction led to a cancellation or deferral of a major Spanish campus (none is in the record), it could reprice them together, concentrating losses in portfolios labelled defensive. Reports of data-centre investment paused pending the decree and of tech sell-offs are offset by a tech recovery after the midterm drop. Stress-test customer contracts, cancellation terms and covenants, and ask what the storage and water assets would earn from other loads. Hyperscalers can exit more cheaply than Spain can change geography.

Sources 06, 88, 95, 96

The rule that rations flexibility

The draft data-centre decree (a press-reported draft, not enacted law, with the Council of State reported to have given its opinion on 6 November) would require large facilities to match 80% of consumption hourly with renewables. Its transitional route offers 60% peak coverage to end-2028, then 70% peak and 60% off-peak from 2029, but only if the operator accepts automatic power reductions, including disconnection, without compensation. Flexibility is being extracted as a condition of access, not bought. The data centre becomes an interruptible load under the system manager's control, and the reliability risk moves to the operator and its lenders. A rule can be a moat, but the question is whether firmness gets a price. If the state introduces a capacity or firmness payment, the layer widens into a market. If not, grid investment becomes a cost-saving service with thin margins. Do not underwrite data-centre equity or queue positions until the final text is known; underwrite verification, metering and maintenance, which are needed either way. A general election is reported for 29 November, though its calendar and effects are unverified, and it may rewrite the text together with housing and migration rules.

Sources 07, 44, 60, 64, 97

Demand is certain; the rent is not

The physical need for network reinforcement, firm capacity and hourly verification is real. But the grid queue figures (reported requests of 8.7–12 GW, with about a quarter allocated and definitions unreconciled) are demand signals, not conversion ledgers, and the reported 40 GW of storage requests is a request, not a fleet. Every successful solution competes its own scarcity away: merchant storage cannibalises its spread, queue positions lose value when access widens, permits are bid up by unlimited capital, and water technology that saves per hectare can fund expansion. A public-interest success can leave a private investor holding a commodity. The durable claim is contracted: firmness payments if they arrive, verification and metering services, and maintenance and demand-response sold to several existing sites on multi-year contracts, with renewal as the scale test. Cap merchant storage to a stressed share, and require a dated grid-operator ledger separating requests, allocations, connections and operating megawatts before pricing any pipeline figure. Gas-set evening prices and a rationed firmness regime could sustain storage value longer than the sceptics expect, which is why the ceiling is a stress share, not zero.

Sources 08, 20, 21

There is an optimistic technical route. If storage plus flexible compute could bring the marginal evening hour of data-centre power below combined-cycle gas cost, perhaps in the early 2030s, the 80% rule would become cost-neutral, storage would shift from merchant to firming revenue and flexible compute would become a grid service. This is unsupported for Spain today: it needs a Spanish storage cost curve, evidence on how much load is shiftable, and a spread series against TTF. The tests are cheap: metered operator baselines with verified shifted megawatt-hours and operating storage revenue by stream. If it works, it overturns the thin-margin reading of the service thesis.

Sources 08, 37

Unlimited capital is a market player

The word 'unlimited' is dangerous for a buyer who becomes the marginal bidder for scarce permits, grid positions, land and installers, and so raises the price of the returns it seeks. A defensible programme has three features. Capital is released against contracted or regulated revenue and measured delivery. Each segment has a ceiling tied to observed capacity. Entry valuation is compared with a global alternative and reported in the base currency. Moving fast captures early scarcity but risks being the last buyer; moving patiently can miss the window. The trade-off is real, but staging behind observable gates is the better default. Do not commit a large allocation until the final decree and the status-disaggregated grid ledger are in hand.

Source 21

Housing, migration and the legitimacy paradox

Housing is the constraint most likely to undermine the model politically. House prices rose 12.2% year on year in Q2 2026 against wage growth of 3–4%, and social housing is reported at 1.72% of households against an EU average near 8%. The shortfall of about 750,000 homes is a gap between completions and new households since 2021, not a count of missing homes; likewise, 1.9 million migrant workers absorbed against fewer than 400,000 dwellings built in 2021–2025 is a mismatch indicator, not a ratio. The workers the lead relies on cannot find homes near the jobs, and a housing protest wave and an early election are reported. A post-election government that restricts inflows or hardens rent controls would slow the labour input that drives aggregate growth while prices keep outrunning wages: a political break rather than a productivity break. Watch the post-election migration and rent provisions, net migration, and completions against household formation. Investable form: permitted, modular, pre-let or partnered supply, hedged against rates, with rent-regulation scenarios underwritten by contract type and locality. Landbanking and speculative landlord returns are the weakest forms.

Sources 77, 78, 79, 80, 81, 82

Water, ports, pharma and hydrogen: where the enabling layer is thinner than it looks

Water is a real and slow constraint. Efficiency per hectare can raise total withdrawals through expansion or crop change, so only net basin consumption measures security. Fund basin-accounted services and test them for two seasons against matched districts. The 2046–47 driest-year result is one study's point estimate, and the €253m a

year Alicante tourism loss from 2050 is a single-locality, single-model scenario. The mandatory 12% olive-oil stockholding, running November 2026 to September 2027, is a price-management measure after an abundant harvest and a credit question for growers, not a climate signal. A possibility worth holding: climate risk may reach asset values first through insurance, mortgages and irrigation-right prices, before yields.

Sources 23, 72, 73, 74

Ports and pharma follow the same logic. The concrete port assets are the Valencia shore-power substation (€18.7m, target 2028) and Algeciras road access (€43.34m), whose delivery is not yet shown and whose buyers are port authorities whatever the cargo. Throughput growth says nothing about margin per box, and Chinese logistics leasing above 2.5 million m² measures footprint, not control. In pharma, the scale is real: a €38bn market, and Teva Zaragoza at 8,700 million doses with about 87% exported by volume. But the trade deficit above €4bn shows volume, not who captures value. Buy contract manufacturing, sterile and cold-chain and quality services; hold owned IP and API as options pending product-level data. Hydrogen is a pipeline filtering toward a few offtake-backed projects: 312 registered projects, down from nearly 400, and two final investment decisions in 2026 totalling 400 MW of electrolysis. The Andalusian valley's 2029 target is the named test.

Sources 09, 13, 15, 16, 17, 68, 69

Small projects that can scale

The small projects worth starting share one test: a named counterparty and a measurable outcome. Grid-performance and verification services sold to several existing industrial sites on multi-year contracts scale only if clients renew and savings stay positive after fees. Basin-accounted water measurement for a user association scales if net consumption falls against a matched district. Quality and cold-chain services for several pharma clients scale on multi-client contracts. A matched pilot for credential recognition and care placements scales if net hours survive displacement.

Sources 08, 67, 72

> *Unlimited capital should be the capital that refuses to pay for narratives and waits to be offered contracts.*

03 / THE GARDEN OF FORKING PATHS

The Garden of Forking Paths

Conditional futures, not forecasts or probabilities. Each path is fully set out, with its assumption, alternative, consequences and breakpoints, in Inside the Garden.

PATH	LIGHTS UP WHEN...	GOES DARK WHEN...	CONNECTS TO	STATUS
The rented lead fades PATH-01	Two consecutive quarters of private employment decline together with a fall in hours worked per employed person	Private hiring recovers; NGEU is replaced by private investment; productivity per hour starts rising from its base of about 74% of the EU-8 level (BBVA Research, reported via secondary summaries)	PATH-05 · PATH-11 · PATH-13	DEVELOPING
Peer recovery narrows Spain's relative lead PATH-10	German industrial output turns up for three consecutive quarters	German autos and chemicals remain below late-2017 levels into 2027	PATH-01	DEVELOPING
Flexibility rationed, not paid PATH-02	Final decree published with the transitional curtailment clause unchanged and no capacity or firmness payment	A firmness payment or capacity mechanism in the final text	PATH-03 · PATH-04 · PATH-13	DEVELOPING
The post-election government rewrites the decree, rent rules and migration settings together PATH-13	The decree is re-tabled with different curtailment or threshold terms	Continuity of the decree and housing policy across the change of government	PATH-02 · PATH-11	UNRESOLVED
Gas sets the evening price and tightens money PATH-03	TTF sustained above the high €80s through a winter month	A Hormuz agreement that lowers gas quickly (an unverified forecast from a gas-price information site points this way)	PATH-04 · PATH-09 · PATH-08	DEVELOPING
The sovereign spread reprices housing, infrastructure and data-centre finance together PATH-09	The spread moves materially wider than the reference of about 58 bp (a monitoring level pending a primary series), sustained over weeks	ECB holds and the December expectation fades	PATH-03 · PATH-04 · PATH-08	DEVELOPING

PATH	LIGHTS UP WHEN...	GOES DARK WHEN...	CONNECTS TO	STATUS
The AI capex turn reaches Spain through the campus, the storage queue and the same savers as the sovereign PATH-04	A cancellation of a named Spanish campus with its power and water contracts	The tech recovery after the midterm sell-off holds	PATH-02 · PATH-03 · PATH-09	SPECULATIVE
A Gulf shock and a rate shock together damage the storage and grid thesis's cash flows PATH-15	Merchant storage revenues falling for two quarters while debt service rises	Contracted firmness revenue rising, with debt sized on contracted cash flows	PATH-03 · PATH-04 · PATH-09	SPECULATIVE
Migration and housing politics reset the population base after the election PATH-11	A binding migration restriction in the post-election programme	Net migration holds and planning reform lifts completions	PATH-01 · PATH-13 · PATH-05	SPECULATIVE
Skills and care release lift output per resident without new inflows PATH-05	Matched evaluation shows positive net additional placements and hours after displacement	Placements substitute for hiring that would have occurred anyway	PATH-01 · PATH-11	SPECULATIVE
Water becomes a price and credit constraint before it is a yield constraint PATH-06	Net basin consumption rising in a district after modernisation, against a matched district	Net basin withdrawals fall with verified savings and no expansion	PATH-07 · PATH-14	DEVELOPING
Water scenario risk arrives as a single-year shock that reprices assets before the decade ends PATH-14	A basin allocation cut of a material share in one season	Rainfall recovers and allocations hold	PATH-06	UNRESOLVED
Ports capture equipment and service value; terminal margins depend on carriers PATH-08	Revenue per container flat or falling while traffic rises for two years	Transshipment share and fees rising with contracted cargo	PATH-03 · PATH-04	CONTESTED

PATH	LIGHTS UP WHEN...	GOES DARK WHEN...	CONNECTS TO	STATUS
Pharma stays a service and volume platform; the IP and API value does not move home PATH-07	Product-level data show domestic value added in APIs or biologics rising	Foreign IP is consistently repatriated into Spanish products	PATH-01	SUPPORTED
Hydrogen reckons in 2029–2030: a few offtake-backed projects, or a stalled pipeline PATH-12	Phase 1 commissioning by 2029 with binding offtake	The count of registered projects falls again without FIDs	PATH-03	CONTESTED

Lights up when evidence would support the path. **Goes dark when** evidence would weaken it.

04 / EXECUTIVE WATCHPOINTS

What to watch, and what it would mean

Events, decisions and market signals that could change the analysis.

01 The final decree text: does the transitional uncompensated curtailment clause survive, and does any firmness or capacity payment appear? An election is reported for 29 November.

WHY IT MATTERS A payment widens the grid layer into a capacity market; none confirms a thin-margin service thesis.

02 The Spanish–Bund spread on a primary series, the Fed on 9 December and the ECB's December decision, with Spanish final October CPI.

WHY IT MATTERS A hike and a sustained wider spread reprice housing, infrastructure and data-centre finance together.

03 Private employment and national accounts: November registered unemployment, then Q4 2026 and Q1 2027 accounts, and output per hour against the EU-8 and EU-27.

WHY IT MATTERS Two quarters of private decline would support the fade; rising output per hour would support convergence.

04 US business investment, AI-bond spreads and any named Spanish campus cancellation or deferral, with German industrial orders and UK data for peer recovery.

WHY IT MATTERS A campus cancellation with a spread widening would test the shared-customer risk; a peer upturn narrows the lead.

05 Net basin consumption in modernised districts against matched districts over two seasons, and operating Spanish storage revenue by stream.

WHY IT MATTERS Falling basin use and contracted revenue validate the service forms; rebound or merchant-only revenue would not.

PART TWO

The full intelligence

Read selectively. The executive reading gives the essential conclusions; this file preserves the competing readings, the possibilities worth taking seriously, the further insights, the analysis in full, the open questions and the limits of the evidence.

01 Competing interpretations

02 Possibilities worth taking seriously

03 Further insights

04 The analysis in full

05 Open questions

06 What this analysis does not cover

07 The figures

08 The calendar ahead

09 Inside the Garden

10 Sources and references

Competing interpretations

DIS-01 COMPETING INTERPRETATION

The decade verdict for Spain should be negative, or at least unestablished, on the measures that matter to residents. The near-term lead is a demand, migration and NGEU effect that is already decelerating, with private employment falling and public employment absorbing the gains. Spanish output per hour is about 74% of the EU-8 level, as reported by BBVA through secondary summaries, and has been broadly flat for two decades. A growth lead bought from population and hours does not raise living standards relative to peers. Unless productivity moves, the lead fades into a 1.5% economy with a fiscal and housing problem. On this reading the investor's best answer is to fund capacity that converts labour into output, not to bet on aggregate outperformance, and the outperformance headline is a poor guide to any Spanish asset return.

> *Spain is a reasonable bet for relative growth through about 2028. For the decade, the bet depends on one variable, the conversion of new capacity into productivity, and on who controls the bottlenecks through which that capacity has to pass.*

> *A forecast that Spain beats the US for ten years would require more than a favourable tourism cycle or a burst of construction. It would require a sustained, economy-wide rise in productivity.*

WHAT IT IMPLIES Against the aggregate view, this implies that the decade is decided by a productivity-conversion test not yet passed. It argues against any allocation whose case requires a long aggregate lead, and it puts the migration and housing constraint at the centre of the outcome, not at its edge.

WHAT WOULD TELL THEM APART

- Spanish output per hour against the EU-8 and EU-27 ratio on a common definition
- Q4 2026 to Q2 2027 private employment trajectory
- NGEU disbursement profile and its replacement by private investment

Sources 28, 53, 54, 55, 56, 76, 83

DIS-02 COMPETING INTERPRETATION

Spain's advantage over the euro area and the UK is a configuration, not a structure. It is borrowed from the troubles of others (German manufacturing, French debt service, UK rate tightening) and from a war-raised premium on Spanish geography. If those peers recover, if Middle East tensions cool, or if US–China trade settles, the configuration could dissolve quickly. The investor should therefore treat the outperformance as a temporary relative position, not an owned capability, and avoid long-duration positions whose cash flows assume the peers stay weak.

> *Spain's advantage is real for the next two or three years, but it is a rented position. If the peers recover, the rent is revalued.*

> *Spain does not beat the US over a decade on rich-world terms because the US owns the one asset Spain rents: frontier productivity growth.*

WHAT IT IMPLIES A decade case built on the relative weakness of others is fragile to convergence. It argues for contracted, peer-independent assets and for treating the EU comparison as a short-horizon effect.

WHAT WOULD TELL THEM APART

- German industrial production and orders over two quarters
- Gulf route insurance surcharges and Hormuz transit data
- UK productivity per hour trend after 2027

Sources 02, 03, 48, 54, 71, 85, 86, 90, 94

DIS-03 COMPETING INTERPRETATION

Scarcity is not a stable return. Every successful solution competes its own scarcity away: storage arbitrage compresses as batteries multiply, queue positions lose value once distributed or interruptible access is allowed, housing permits are bid up once unlimited capital arrives, and water technology that saves per hectare can fund expansion. A public-interest success can leave the private investor holding a commodity. On this view the grid, storage and housing theses are sound for society and poor for a specific investor, unless the investor holds contracted service revenue rather than scarcity rights.

> *The most useful next question is therefore not "Which bottleneck will be hottest?" It is: which bottleneck can Spain remove in a way that leaves both the public and the investor better off, and what evidence would show that we have bought the solution rather than paid too much for the problem?*

> *Storage that is built merchantly will cannibalise its own spread; storage contracted for firmness is a different asset.*

WHAT IT IMPLIES The investable form is contracted service and verification revenue with an explicit merchant ceiling. This lowers the attraction of queue positions, speculative landbanks and merchant storage, and makes the price the investor pays the central variable.

WHAT WOULD TELL THEM APART

- Operating Spanish battery revenue by stream against underwriting
- Contracted firming or capacity payments introduced or not
- Realised entry multiples for housing permits and grid positions

Source 08

DIS-04 COMPETING INTERPRETATION

The rules are not the risk; the rules are the moat, and the uncompensated curtailment clause is the proof that flexibility is currently rationed rather than paid for. The decree creates a regulated obligation whose cost is passed to operators, which favours firms that can supply firmness at lowest cost. Because the evening price is gas-set, firmness is a priced asset in gas-volatile conditions. The investor's question is whether the state will eventually pay for firmness through a capacity or firmness mechanism, or leave it an uncompensated obligation. Under the second reading the grid thesis is a cost-saving service for operators, not a price-setting asset.

> *The thesis depends on whether firmness gets a price.*

> *The rule creates demand for storage and for firming, but it also transfers the curtailment risk onto the operator and its lenders.*

WHAT IT IMPLIES If firmness is paid, the thesis expands into a capacity market. If not, it is a service market with thin margins and much narrower investment merit.

WHAT WOULD TELL THEM APART

- Final decree text and whether the transitional curtailment clause survives
- Any capacity or firmness payment in the Council of Ministers text
- Operator acceptance of the transitional regime

Sources 07, 08, 60, 64

DIS-05 COMPETING INTERPRETATION

Housing and migration politics could reverse the labour-supply basis of the lead. Reported border pressure of the Ceuta type (a single-outlet report, unverified), the termination of US temporary protection, and a post-election government that restricts inflows or tightens rent controls would slow the labour input that drives aggregate growth, while the housing gap keeps prices rising faster than wages. The lead then narrows and the political consent the growth model needs erodes.

> *Stability on the surface is accumulating the conditions for the next instability.*

> *Spain's growth model contains an internal legitimacy paradox.*

WHAT IT IMPLIES This is a political rather than a productivity break. It argues for watching the election's migration and rent provisions and the population series, not only growth data.

WHAT WOULD TELL THEM APART

- Net migration and employment series after the election
- Changes in rent-control and migration provisions in the post-election text
- Housing completions against household formation

Sources 78, 81, 91, 92

DIS-06 COMPETING INTERPRETATION

The US is the stronger decade bet on every measure except the purely arithmetic aggregate-GDP comparison, and the AI capex cycle is the single largest swing factor. If US AI investment converts into productivity, the US outruns Spain on all measures and Spain's data-centre role becomes a sub-contractor position. If it does not, US aggregate growth falters, which weakens the US as a growth comparator but damages the Spanish data-centre thesis regardless. Either way, Spain's data-centre thesis is a call on the US cycle.

> *Spain's data-centre destiny is therefore not Spain's to decide.*

> *The US is the most interesting comparator. Its risks are real: a sharp sell-off in AI stocks, an AI bond market competing with sovereign debt, and investor doubts about the returns on infrastructure capex.*

WHAT IT IMPLIES The investable Spanish thesis is largely a function of US capex, so hedging with global exposure is necessary, and the US comparison should be reported as conditional on the AI cycle.

WHAT WOULD TELL THEM APART

- US business investment and AI-bond spreads
- US productivity per hour trend
- Customer contracts and cancellations for hyperscale campuses

Sources 34, 54, 70, 88, 95, 96

DIS-07 COMPETING INTERPRETATION

A lone productivity-first view holds that the whole decade is decided by whether Spanish firms adopt cheap automation and AI tools. If adoption is high and SMEs invest, productivity moves. If not, a labour-substitution trap, in which cheap migrant labour removes the incentive to automate, keeps productivity flat. On this reading the most valuable investment is SME AI diffusion, and the labour-release pilot is secondary.

> *AI-led productivity in Spain will not automatically flow to Spanish SMEs. It will flow first to the companies that can buy compute and software from abroad.*

WHAT IT IMPLIES It makes diffusion of commodity AI into SMEs the primary productivity test, a point the record cannot yet evidence for Spain.

WHAT WOULD TELL THEM APART

- Spanish SME AI adoption survey against the EU average
- Capital per worker in Central Balance Sheet data

Source 53

DIS-08 COMPETING INTERPRETATION

Fiscal and rate risk is a first-order channel, not a background one. With public debt near 95% of GDP, refinanced every year, and an ECB deposit rate of 2.50% (held on 29 October) with markets expecting a move to 2.75% in December, the sovereign spread is the variable most likely to determine whether any growth lead survives into the 2030s. A sceptical reading of rival analyses is that they treat the rate channel as background; it is in fact the most direct transmission from the energy shock and the AI-bond competition into Spanish investment returns.

> *The rate channel is a first-order risk, not a second-order one.*

> *A 50bp rise in Spain's financing cost removes a large share of the development margin.*

WHAT IT IMPLIES The rate channel deserves first-order weight in every allocation, and housing and infrastructure returns should be underwritten against a higher-rate scenario.

WHAT WOULD TELL THEM APART

- Spanish–Bund spread from a primary series
- ECB December decision and the Fed's 9 December decision
- Spanish auction results

Sources 31, 42, 47, 83

Possibilities worth taking seriously

HYP-01 HYPOTHESIS

Storage plus flexible compute can bring the marginal evening hour of data-centre power below combined-cycle gas cost in Spain, turning the 80% hourly rule from a constraint into a cost-neutral requirement, in the early 2030s.

MECHANISM Workload flexibility lets operators shift batch load to solar hours; storage bridges the residual; the residual firm cost falls below gas-set marginal prices.

PROMPTED BY A threshold crossing in the early 2030s when storage plus flexible load undercuts gas-fired firm supply at the margin.

WHAT FOLLOWS The 80% rule becomes less onerous; storage shifts from merchant to firming revenue; flexible compute becomes a grid service; gas-fired backup strands slowly.

STILL HYPOTHETICAL The crossing date, the Spanish cost curve for storage, and the share of load that is genuinely shiftable.

WHY IT MATTERS It is the central technical route by which Spain could break the flexibility constraint, and it determines whether the storage and grid thesis becomes durable.

TESTS

- Metered operator baseline with verified shifted or curtailed MWh
- Operating storage revenue by stream against underwriting
- Spanish evening marginal price series against TTF

Source 08

HYP-02 HYPOTHESIS

Credential recognition, bridging and care provision can release part of Spain's already-resident labour capacity, raising effective labour and output per resident without proportionate new migration.

MECHANISM Faster verified recognition and supervised bridging move qualified people into shortage occupations; reliable respite and childcare release carer hours; output per resident rises.

PROMPTED BY Credential recognition and care gaps may hold a material share of qualified or available residents out of matched work; no Spanish dataset establishes the size.

WHAT FOLLOWS Employment quality and household income rise; the housing constraint may tighten locally; wage pressure on scarce carers may erode the margin; programme success can be competed away by other regions.

STILL HYPOTHETICAL Whether released capacity is material at national level and whether it is additional.

WHY IT MATTERS It is the only lever that raises productive labour without new inflows, which matters if migration politics tighten.

TESTS

- Ministry and regional administrative data on recognition backlogs and placements
- Matched evaluation of placements, hours and 12-month retention against a comparison group
- Care waiting lists and provider capacity

Sources 24, 84

HYP-03 HYPOTHESIS

Climate and water risk is transmitted to Spanish asset values chiefly through insurance premiums, exclusions, mortgage availability and irrigation-right transfer prices, before it reaches yields or tourism volumes.

MECHANISM Expected loss rises in flood or drought-exposed areas; insurers and lenders reprice or restrict; housing and farm asset values adjust; household and farm balance sheets weaken.

PROMPTED BY Insurance, mortgage or water-right repricing in exposed localities; not established.

WHAT FOLLOWS Household resilience can fall while GDP recovers after shocks; local housing affordability and labour supply deteriorate; public budgets absorb emergency costs.

STILL HYPOTHETICAL Whether Spanish insurers or lenders have repriced any named locality.

WHY IT MATTERS It is the most likely way water risk reaches the household and investment layer before it reaches output.

TESTS

- Consorcio and private claims and terms by locality
- Mortgage availability and repair times after events
- Irrigation-right transfer prices

Source 75

HYP-04 HYPOTHESIS

EU trade defence against Chinese batteries and vehicles could make a Chinese-owned cell plant inside the EU valuable as a tariff hedge, while exposing Spanish storage to Sino-EU escalation.

MECHANISM Tariffs and local-content rules raise the value of in-EU cell capacity; Chinese rare-earth or equipment responses raise input costs and delay projects.

PROMPTED BY EU trade-defence escalation reaches storage cells or rare-earth inputs; the record shows Berlin pushing stronger trade-defence powers but no measure on storage cells.

WHAT FOLLOWS Storage deployment cost and timing; Spanish manufacturing margin for storage stays low; plant value depends on trade regime.

STILL HYPOTHETICAL Whether any measure reaches battery cells in the relevant window.

WHY IT MATTERS It is a dependency the storage thesis must hedge and a plausible source of a sudden cost shock.

TESTS

- EU trade-defence measures on batteries
- Equipment lead times and licensing for Spanish storage projects tied to Chinese suppliers

Sources 87, 89

HYP-05 HYPOTHESIS

Port value may be captured by carriers and terminal operators rather than by Spanish ports: throughput can rise while Spanish value per container falls under disruption-driven rerouting.

MECHANISM Carriers use Spanish transshipment as an option and negotiate fees down; terminal landlords capture rent; inland logistics does not benefit.

PROMPTED BY Container throughput rises at Spanish ports during Middle East disruption; value per box is not measured.

WHAT FOLLOWS Port equipment and digital services earn more reliably than terminal equity; Spanish importers may bear higher freight costs.

STILL HYPOTHETICAL Whether traffic growth is disruption-driven and whether value per box rises.

WHY IT MATTERS It decides whether the port thesis is a toll thesis or an equipment-and-service thesis.

TESTS

- Port authority data on transshipment share and vessel calls
- Terminal revenue per container and inland freight volumes

Sources 15, 16, 17, 18

HYP-06 SCENARIO

A Spanish-owned or Spanish-contracted firming and verification service for hourly matching could become a standard-setting rent, if the decree survives in some form.

MECHANISM Whoever writes the methodology for hourly correlation earns recurring fees from every operator required to prove it.

PROMPTED BY A verification standard for hourly matching is adopted with a single accepted verifier; not established.

WHAT FOLLOWS The rent is durable if the standard is regulatory; it disappears if the rule is softened or if verification becomes a free government function.

STILL HYPOTHETICAL Whether the standard is set by regulation, by a private certifier or by the grid operator.

WHY IT MATTERS It is a low-capital, scalable small project whose entire value depends on the decree's final text.

TESTS

- Final decree text naming the verification method and body
- Accreditation of verifiers

Sources 57, 62

HYP-07 SCENARIO

A decade of Spanish growth could be built on the expansion of the 'extensive' model while the productivity ratio stays flat, producing a lead in cumulative aggregate GDP over the US without any improvement in per-resident income.

MECHANISM Population and hours growth provide the aggregate lead; productivity differences shift the per-resident comparison in the US's favour.

PROMPTED BY Spain's population and hours grow faster than the US's over 2026–2036 while US productivity growth continues.

WHAT FOLLOWS Aggregate comparisons and per-resident comparisons give opposite verdicts; housing and migration politics decide whether the population base holds.

STILL HYPOTHETICAL The population and hours series over the decade, and the US path after 2027.

WHY IT MATTERS It is the only route by which Spain could plausibly beat the US on a decade-scale measure, and it is easily misreported.

TESTS

- Cumulative real GDP over the same interval in INE, Eurostat, BEA and BLS series
- Per-resident and per-hour changes on the same series

Source 53

HYP-08 SCENARIO

An AI-capex correction could reprice Spanish storage, land and water assets together, because they may share one campus customer and one buyer for power, water and heat.

MECHANISM A single data-centre cancellation removes the power buyer, storage revenue, water customer and heat recipient at once.

PROMPTED BY A cancellation or deferral of a major Spanish campus; not in record.

WHAT FOLLOWS Concentrated loss in portfolios labelled defensive; municipal inheritance of incomplete infrastructure.

STILL HYPOTHETICAL Whether the correlation is material in actual financing structures.

WHY IT MATTERS It tells the investor which 'defensive' assets to stress-test together.

TESTS

- Customer contracts, cancellation terms and project-finance covenants
- Alternative-load utilisation of storage and water assets

Sources 06, 21, 88, 95, 96

HYP-09 HYPOTHESIS

A Spanish-run wastewater-reuse or waste-heat interface could displace freshwater withdrawals or heat-fuel use in a specific cluster, creating a contracted small project with a physical offtaker.

MECHANISM Treated or recovered flows replace freshwater or gas heat for a stable industrial or greenhouse user.

PROMPTED BY Reuse or waste-heat supply is contracted at a named site; not established in the record.

WHAT FOLLOWS Reuse must displace, not supplement, freshwater; heat offtake depends on proximity and temperature match.

STILL HYPOTHETICAL Whether an offtake exists at any specific site.

WHY IT MATTERS It is a physical, contractable niche that does not depend on the AI cycle once built.

TESTS

- Signed heat or reuse offtake
- Basin accounting of displaced freshwater

Sources 19, 49, 57

HYP-10 SCENARIO

Flexibility becomes a priced product only if the state introduces a firmness or capacity mechanism. Absent one, the transitional curtailment clause persists as an uncompensated obligation and grid investment is mostly a cost-saving service.

MECHANISM Without a payment, operators either accept curtailment at low value or buy firm supply themselves; flexibility stays a compliance cost.

PROMPTED BY Final decree keeps uncompensated curtailment and adds no firmness payment.

WHAT FOLLOWS Storage and grid services earn only contracted-service margins; capacity mechanisms, if introduced later, would reprice the entire layer.

STILL HYPOTHETICAL The final text and any later firmness mechanism.

WHY IT MATTERS It is the single most decision-relevant regulatory fork for the grid thesis.

TESTS

- Council of Ministers text
- Any capacity or ancillary-service auction introduced for firm load

Sources 07, 59, 64

Further insights

TRS-35 FURTHER INSIGHT

Procurement audit belongs among the investment conditions for any publicly funded Spanish asset, not in the footnotes. A reported EU fraud probe on the Urda rail line shows how governance failures can erode both public trust and the case for further investment.

> *A reported EU fraud probe on a Spanish rail line is a warning that governance failures can undermine both public trust and future investment.*

WHY IT MATTERS It turns the Urda rail investigation into a specific, observable governance condition for any publicly funded asset, including port and grid works. The record contains no procurement audit of those assets, so this is a condition to test, not a finding about them.

The analysis in full

KJ-01 JUDGEMENT / OBSERVATION FOR FORECASTS; INFERENCE FOR MECHANISM

Spain very likely outgrows the euro area and UK through 2027; the lead is a well-supported forecast, not an outcome

Institutional forecasts converge. The IMF puts Spain at 2.5% in 2026 and 1.8% in 2027, against 1.1% and 1.2% for the euro area; Airef and CaixaBank sit close to it. The lead is corroborated by relative industrial output and a record employment base. We judge the 2026–2027 lead very likely, and we say explicitly that it is a forecast. Q3 GDP growth of +0.6% q/q is consistent with it, but it is one quarter.

MECHANISM Demand from employment growth, a public and EU-funded investment impulse, tourism at records and a cyclical AI-equipment spillover, set against weaker German and French performance.

IMPLICATIONS The near-term outperformance is a reasonable premise for a two-year view but not for a ten-year allocation. Investors should not treat the forecast lead as a return signal: equity markets have already rallied (IBEX 35 up about 14% year to date after the 9 November close, a calculated figure).

EVIDENCE LIMITS Most comparisons are against the euro area, not the EU-27 that the question names. The institutional forecasts were not opened and rest on secondary summaries.

KJ-02 JUDGEMENT / INFERENCE; THE AGGREGATE VERDICT IS PROBABLE, THE PER-RESIDENT IS NOT ESTABLISHED

The decade lead on aggregate GDP over the EU-27 and UK is probable; on income per resident and productivity it is not established and the US very probably stays ahead

We judge that Spain probably outgrows the EU-27 and UK on cumulative aggregate real GDP through 2036, by a margin of a few tenths of a point a year: modest, but real if it holds. The margin is smaller than against the euro area and is not measured against the EU-27. On income per resident, output per hour and real disposable income, the evidence in the record gives no basis to expect Spain to outgrow the EU-27 or the US. Productivity per hour stands near 74% of the EU-8 average and has been broadly flat for two decades, and the demand factors that explain recent output growth are not productivity.

MECHANISM Aggregate growth equals output per hour times hours times population share. Spain's lead has come from hours and population, which can persist, while per-hour output has not moved, and that is what per-resident convergence would require.

IMPLICATIONS Frame any 'Spain beats Europe' claim by measure and interval. The investable thesis does not require the per-resident lead, so it should not be built on one.

EVIDENCE LIMITS The EU-27 comparison and the BBVA decomposition are not primary series. The 74% figure is relative to the EU-8, not the EU-27 or the US.

Sources 25, 53

KJ-03 JUDGEMENT / OBSERVATION FOR THE CLAUSE; INFERENCE FOR THE ECONOMIC CONSEQUENCE

The decree's transitional route makes flexibility a rationed condition of access, and whether firmness gets a price is the single most decision-relevant regulatory fork

The draft 80% hourly-matching rule has reached the Council of State stage, and its transitional route is conditional on accepting uncompensated automatic curtailment. Until a firmness or capacity payment exists, flexibility is a cost imposed on connecting operators, not a revenue line. Unless the state pays, the grid and storage thesis is a service thesis with thin margins. The final text is the first thing to check.

MECHANISM A regulated obligation to match hourly, combined with a curtailment condition, moves operational control of the load to the system operator and transfers reliability risk to the operator and its lenders.

IMPLICATIONS Do not underwrite data-centre equity or queue positions until the final text is known. Underwrite verification, metering and maintenance services, which are needed under either outcome.

EVIDENCE LIMITS The article describing the clause is a press report of a draft, not enacted law. The 60/70/80% schedule is as reported. Council of State approval is an opinion, not enactment.

Sources 07, 60, 64

KJ-04 JUDGEMENT / INFERENCE

Grid and storage are the most physically needed layer, but the durable rent sits in contracted firmness, verification and services, not in queue positions or merchant spreads

The need for network reinforcement, firm capacity and hourly verification is real. Queue figures are demand signals, not conversion ledgers, and the 40 GW storage request is a request, not a fleet. Merchant storage spreads compress as deployment grows. The durable form is the contracted layer, which survives the success of the solution.

MECHANISM Public-good deployment competes away scarcity rents (storage cannibalisation, bypass of gatekeepers), so the investor's return depends on holding a service claim with a counterparty, not a rent on scarcity.

IMPLICATIONS Prefer multi-customer grid-performance and verification contracts with renewal tests, and cap merchant storage to a stressed share. Require a dated REE ledger before pricing any pipeline figure.

EVIDENCE LIMITS There is no Spanish operating battery revenue series and no capacity or firmness payment in the record. A reported 6,329 MW 'granted access' figure could not be traced to a primary source and is not relied on.

KJ-05 JUDGEMENT / OBSERVATION FOR RATES; INFERENCE FOR THE CHANNEL

The sovereign spread and the rate path are a first-order channel, and they can reprice housing, infrastructure and data-centre finance together

Spain carries public debt of about 95% of GDP (Airef forecast) and refinances every year. The ECB deposit rate is 2.50%, with a move to 2.75% in December priced by markets. Fed funds are 3.75–4.00%, with a 25bp hike on 9 December priced at 85.7% as reported on 28 October. The UK Bank Rate is 4%. The Spanish 10-year yield was reported at 3.825% on 9 November; the spread to Bunds is not confirmed by a primary series. A sustained widening, together with a higher policy rate, would reprice the housing margin, the refinancing cost and the sovereign story at once. The spread is the natural kill-switch to watch.

MECHANISM Energy-driven inflation (Spanish CPI 4.9% October flash) and US rate levels feed euro-area yields; AI bonds compete for the same savers; development margins and cap rates are priced off the sovereign curve.

IMPLICATIONS Underwrite housing and infrastructure at a higher-rate scenario. Hold sovereign Spanish bonds as a hedge or liability match, not as an outperformance trade. Check the primary spread series before acting on any threshold.

EVIDENCE LIMITS The spread figure and the 150–180 bp breakpoint come from one or two secondary sources and a single judgement; treat the threshold as a monitoring level, not a measured trigger.

Source 47

KJ-06 JUDGEMENT / INFERENCE

The external AI cycle sets the data-centre pipeline, and the investor should not own the operator before the decree is settled

The pipeline's headline (€66.9bn to 2030, an industry-sourced projection) depends on hyperscaler capital decided partly in the US, where doubts about AI returns have produced tech sell-offs. Hyperscalers can exit more cheaply than Spain can change geography. An equity stake in an operator is a joint bet on the decree text and the AI cycle; adjacent scarce inputs (land with grid rights, water and power contracts) can be held more defensibly.

MECHANISM The buyer's option to wait or walk transfers bargaining power to the buyer; a US capex turn removes the customer that justifies much of the national grid and storage build.

IMPLICATIONS Do not buy data-centre equity before the final decree and customer commitments. If exposure is wanted, hold it through contracted inputs whose value survives a deferral.

EVIDENCE LIMITS US AI capex doubts and the midterm effects are reported, and the record also shows a US tech recovery after the midterm drop. The sign of the AI effect on Spain is not settled.

Sources 88, 95, 96

KJ-07 JUDGEMENT / OBSERVATION FOR EXPOSURE; INFERENCE FOR THE INVESTMENT FORM

Water security is a slow constraint; the investable form is measured basin-level outcomes, and the olive-oil stockholding is a price-and-credit signal

Water scarcity in the south and south-east is a structurally credible risk, but the 2046–47 driest-year date and the €253m a year Alicante loss are scenario points, not countdowns. The 12% olive-oil stockholding obligation responds to an abundant harvest and the risk of a price collapse, so the nearer question is credit for growers who must hold stock. Efficiency per hectare can coexist with rising basin withdrawals.

MECHANISM Water scarcity is priced first through allocation rules, insurance and irrigation-right transfer prices, and only later through yields. Efficiency gains are real only when net basin consumption falls.

IMPLICATIONS Fund basin-accounted services with a two-season comparison against matched districts. Do not sell per-hectare claims. Treat tourism real estate in exposed coastal zones as a long-horizon risk, not a short-term one.

EVIDENCE LIMITS No basin withdrawal series is in the record; the insurance and transfer-price channels are untested.

Source 72

KJ-08 JUDGEMENT / OBSERVATION FOR PRICE AND SOCIAL INDICATORS; INFERENCE FOR THE MECHANISM

Housing is the constraint most likely to undermine the growth model politically; the affordability gap is observed, the shortfall figure is not

House prices rose 12.2% y/y in Q2 2026 against wage growth of 3–4%, and social housing is a small share of the stock by European standards. The 750,000-home figure is a gap between completions and new households since 2021, not a count of missing homes. The political consequence is visible in the record: reports describe a housing protest wave and an early election. The investable form is permitted supply with public or non-profit partners, plus rate hedging.

MECHANISM Migration and job creation raise demand faster than completions; prices and rents outrun wages; the workers the lead relies on are priced out of job centres, and consent for the migration-funded model erodes.

IMPLICATIONS Prefer modular, pre-let and partnership-structured supply. Avoid landbanking and speculative landlord returns. Underwrite rent-regulation scenarios by contract type and locality.

EVIDENCE LIMITS No Spain-wide permit or completion series by locality; the effect of rent control on listings and new build is not measured.

Sources 78, 81, 98

KJ-09 JUDGEMENT / OBSERVATION FOR SCALE; INFERENCE FOR THE INVESTABLE FORM

Pharma and clinical services are the investable form; the IP and API story is unproven and should be held as an option

The scale is real (market size and growth, employment, Zaragoza output). Value capture is not shown by the trade deficit or by volume export shares. Contract manufacturing, sterile and cold-chain services, and quality and process development for several clients are the forms the evidence supports.

MECHANISM Multinational sites choose Spain for cost, incentives and access; intellectual property and pricing stay with the parent unless domestic R&D and owned candidates grow.

IMPLICATIONS Buy the services layer; treat owned IP or API positions as options pending product-level data.

EVIDENCE LIMITS Farmaindustria targets are aspirations; product-level trade and value added are absent.

KJ-10 JUDGEMENT / INFERENCE

Which sectors will be hot: the ranking that survives the record is grid and verification services, water measurement, port equipment, pharma services and constrained housing supply, with hydrogen, data-centre equity and merchant storage on the cautious side

We rank by who pays, whether revenue is contracted, and how far the margin depends on one external cycle. First: grid reinforcement, verification, firmness services and port equipment, which have regulated or public buyers. Second: water measurement and irrigation services sold on basin outcomes; pharma contract and quality services; housing delivery with partners. Third, as options: hydrogen with offtake; tourism resilience rather than capacity; defence only once Spanish procurement data exists. Cautious: data-centre equity before the decree, merchant storage in bulk, Mediterranean coastal tourism real estate, and broad Spanish small-cap equity.

MECHANISM Public or regulated paying counterparties keep the revenue when a particular customer withdraws; sectors whose margin depends on one AI or gas cycle are the most cyclical.

IMPLICATIONS Use the ranking as an order of exposure and a set of stress tests, not as a list of sectors to buy.

EVIDENCE LIMITS Several sector sizes are projections or aspirations; there is no sector return data in the record.

KJ-11 JUDGEMENT / INFERENCE

The US comparison on aggregate growth is close to even and conditional on the AI cycle; per-resident and per-hour comparisons very probably favour the US

The IMF has the US at 2.3% in 2026 and 2027; US payrolls rose 165,000 in October with unemployment at 4.1%. On these figures Spain leads by 0.2 points in 2026 and trails by 0.5 in 2027 (calculated). Over ten years the aggregate contest depends on population and hours in Spain and on whether US frontier investment converts into productivity. A narrowing US labour base through migration restriction is a reported channel that would slightly favour Spain on aggregate. On per-resident measures the US very probably stays ahead.

MECHANISM A compounding illustration (2.5% against 2.0% a year over ten years gives about 28% against 22% cumulative) shows why the choice of metric decides the verdict.

IMPLICATIONS Report the US verdict by measure. Do not present a Spain-beats-US headline without the per-resident qualifier.

EVIDENCE LIMITS No IMF medium-term US figure is in the record; the illustration is not a forecast.

KJ-12 JUDGEMENT / OBSERVATION OF GAP

The most decision-relevant unknowns are the decree text, the status-disaggregated grid ledger, the basin withdrawal records and the EU-27 comparison; none is available in the record

Four data gaps would move the most judgements: the final decree; a grid ledger that separates requests, allocations, connections and operating MW; basin water accounting; and a primary EU-27 comparison of real output per hour. The customer should not commit to a large allocation until at least the first two are in hand.

MECHANISM The verdicts are conditional on these series: the flexibility thesis depends on the decree, the storage thesis on contracted revenue, the water thesis on basin netting, and the decade comparison on the EU-27 base.

IMPLICATIONS Stage capital behind these observables, releasing it in tranches as each becomes available.

EVIDENCE LIMITS The record contains no primary series for these items; the most valuable number, a reported 6,329 MW of granted access, is untraced.

ARG-01 ARGUMENT / INFERENCE; NEAR-TERM FORECAST WELL SUPPORTED AS A FORECAST; DECADE PROBABLE; PER-RESIDENT NOT ESTABLISHED

Relative growth is real and near-term; the decade lead is probable on aggregate output and not established on the measures residents feel

The forecast evidence is convergent. The IMF, CaixaBank, AIReF and the European Commission place Spain at roughly 2.4–2.6% for 2026 and 1.8–2.2% for 2027, against a euro area near 1% and a UK near 1.3%. The strongest observed corroboration is relative industrial output, Spain +10.9% since end-2019 against Germany −2.2%, together with a record employment base. These are real, but several supports are cyclical or borrowed: NGEU absorption fades in 2027, employment growth has slowed with private jobs falling, and the industrial gain is partly an AI-equipment and pharma spillover. The forecasts are for single years and mostly for the euro area, not the EU-27 that the question names. The decade claim turns on the distinction between aggregate output and what residents experience. Aggregate output can keep outrunning peers through hours and population even while output per hour stays flat near 74% of the EU-8. An aggregate lead of a few tenths of a point a year compounds into a modest total gap, and it survives only while the labour and migration base holds. On income per resident, output per hour or real disposable income, the evidence points the other way or does not yet exist. The most plausible single account is therefore this: Spain probably leads the euro area and UK on aggregate growth through most of the decade; the EU-27 margin is smaller and unmeasured; and the US comparison on aggregate output is close to even and conditional on US AI capex, while per-resident measures very probably favour the US.

Source 76

ARG-02 ARGUMENT / INFERENCE WITH OBSERVATIONS; PEER WEAKNESS IS OBSERVED FOR THE PRESENT, NOT ESTABLISHED FOR THE DECADE

The peer weakness that props up the lead is borrowed, and it can be revalued

Spain's comparative position depends on three peer conditions: German industrial distress (autos and chemicals weak), French real-wage and debt-service stress, and a UK caught between a 4% Bank Rate and a 2027 slowdown to about 1.0%. Each is documented for the present. None is a decade fact. The UK's trend productivity is forecast to rise from 0.7% in 2027 to 1.1% by 2031, and a new government is a reported political change whose policy direction the record does not establish. German weakness is reported as structural, but its duration is unknown. A relative lead that depends on others' troubles is a rented position, one interpretation holds, and it is revalued when the others recover. This matters for the customer in one specific way. Any allocation whose cash flows assume a persistent peer gap is exposed to convergence, so peer-independent assets (contracted services, domestically earned foreign-currency revenue, long-dated regulated infrastructure) hold value in both states. The argument does not claim the peers will recover; it claims the investment case should not require that they stay weak.

Sources 01, 02, 54, 90

ARG-03 ARGUMENT / INFERENCE ACROSS OBSERVED CHANNELS; THE JOINT SHOCK IS A SCENARIO

A single external cycle (the AI capex cycle, the Gulf energy shock and the euro-area rate path) can fail together, and they share channels into Spain

Three external cycles bear on Spain's decade-scale investment case, and they transmit through shared channels. The AI capex cycle funds the hyperscale pipeline (€66.9bn headline) and the AI-linked share of industrial momentum; investor doubt about AI returns has produced sharp tech sell-offs. The Gulf shock raises gas and oil and so Spain's gas-set evening marginal power price, which feeds Spanish inflation (4.9% October flash) and the ECB path (deposit rate 2.50%, with a 2.75%

December move priced). The rate path raises the cost of the sovereign refinancing that a 95.4% debt ratio requires, and it reprices housing and infrastructure returns. AI-bond issuance competes with sovereign paper for the same savers, so the AI cycle can reach Spanish debt even without a Spanish campus. The linkage is the point. The decree's 80% hourly rule, the storage thesis and the housing thesis all sit on top of these three cycles, and a common shock (a gas spike that also tightens rates and dents AI capex) would hit several investments at once. The sensible response is to stress-test the portfolio against the joint case, not against each risk separately.

Sources 47, 95, 96

ARG-04 ARGUMENT / INFERENCE; THE CONTRACTED LAYER IS A SOUND DESIGN PRINCIPLE, ITS SIZE IS UNMEASURED

The durable rent is in contracted firmness, verification and service, not in scarce queue positions or merchant spreads

The grid and storage thesis is strongest in the form that survives the scarcity-competition challenge. The physical need is clear: the renewable build is large (Iberdrola reports 5 GW commissioned in 21 months, a group-level figure not separately Spanish) and grid requests exceed allocations. The decree creates a demand for firmness, and the uncompensated curtailment clause shows the state currently rations flexibility rather than buying it. Scarce queue positions are the weakest form of the rent: they are cannibalised when access is widened or when bypass works, and the 40 GW storage request is a request, not a fleet. Merchant storage compresses as deployment grows. The durable form is therefore contracted: firmness or capacity payments if the state introduces them; verification and metering services that the hourly rule needs however it settles; and maintenance and demand-response services sold to several existing sites on renewable contracts. Each is a service revenue that can survive the success of the solution. Each also has a named counterparty and a renewal test, which is how scarcity in the record can be converted into a measured asset.

ARG-05 ARGUMENT / INFERENCE; THE STRUCTURAL EXPOSURE IS SUPPORTED IN DIRECTION, THE INVESTMENT FORM IS A DESIGN PRINCIPLE

Water is a real and slow constraint whose investable form is measured basin-level outcomes, not efficiency claims or olive-oil signals

The climate and water exposure of Spain's south and south-east is supported in direction by the OECD survey and Copernicus. The timing and scale are not. The 2046–47 driest-year figure is one study's point estimate; the €253m a year Alicante loss is a single-locality scenario from 2050. The 12% olive-oil stockholding obligation is a measure against price collapse after an abundant harvest, which means the inventory-finance question is more immediate than the drought question. For investment, the argument is that efficiency per hectare is not water security. Irrigation modernisation can raise output while leaving basin withdrawals unchanged or higher if the saved water funds expansion or thirstier crops. A service that sells measured net consumption and verified savings, to a water user association, through a basin authority's data, is the defensible form. Irrigation-modernisation hectare targets and agro-export totals are policy outputs and do not themselves show that the form works.

Sources 72, 75

ARG-06 ARGUMENT / OBSERVATION FOR SCALE; INFERENCE FOR THE SERVICE POSITION

Pharma is a services and manufacturing platform whose value capture is unproven; the investable position is contract and quality services

Spanish pharma has real scale and growth: a €38bn market projected at €61bn by 2033 (a market projection), rising direct employment in innovative pharma, and a Zaragoza site producing 8.7bn doses with about 87% of that site's output exported by volume. These are volume and market figures. A trade deficit above €4bn alongside exports above 80% of production is not contradictory, but it does not show who owns IP or captures high-value inputs. Farmaindustria's €21.5bn investment and €30bn export figures are aspirations. The investable reading follows. Spain appears strong in manufacturing, fill-finish

and clinical trials, where the customer pays for reliable output and cost. Owning IP or API positions is a different and less evidenced bet. Services (contract testing, sterile packaging, cold chain, maintenance, quality, process development for several clients) fit the evidence and survive the IP question.

ARG-07 ARGUMENT / OBSERVATION FOR INFRASTRUCTURE; INFERENCE FOR THE EQUIPMENT-LED POSITION; THE TERMINAL THESIS IS UNEVIDENCED

Ports are a contracted equipment and digital-service market; the terminal and landlord thesis depends on value per box that is unmeasured

The most concrete infrastructure in the transport layer is the Valencia shore-power substation (€18.7m, EU-funded, target 2028) and Algeciras road access (€43.34m). Shore power and electrification sell to port authorities and terminals whatever the cargo outcome, which is the lowest-risk form of the port thesis. Chinese logistics leasing above 2.5m m² measures leased footprint, not control of ports or cargo. Throughput growth, such as Valenciaport's reported export rise of 5.68%, says nothing about margin per box, which is what a terminal or landlord earns.

Source 18

ARG-08 ARGUMENT / OBSERVATION FOR PRICE GAP; INFERENCE FOR THE INVESTMENT FORM; SUPPLY EFFECTS UNRESOLVED

Housing is the politically most dangerous constraint; the affordability gap is observable and the investable form is permitted, rate-hedged supply

The housing constraint has an observable signal: house prices up 12.2% y/y in Q2 2026 against wage growth of 3–4%, a social-housing stock small by European standards, and rising residential investment. The shortfall figure is definition-dependent (completions against households since 2021), so it should be reported as a gap of about 750,000, not as a count. Migrant labour absorption of 1.9 million against under 400,000 dwellings built in 2021–2025 is a mismatch indicator, not a ratio. Rent-control effects differ by contract and locality and are not established as a uniform suppression of supply. The investment consequence is that housing returns are priced off the sovereign curve. A financed development is a long-duration asset whose margin falls when the cost of money rises. So the investable form is permitted land, modular or industrialised delivery that shortens build time, pre-let or forward-sold units, and public or non-profit partnership structures. Landbanking and speculative landlord returns are the weakest forms.

ARG-09 ARGUMENT / OBSERVATION FOR PIPELINE COUNTS; INFERENCE FOR THE NARROW NICHE

Hydrogen is a pipeline filtering toward a small set of offtake-backed projects; the decision variable is refinery and port offtake, and the 2029–2030 window is the test

The hydrogen record shows a pipeline collapsing toward a few projects: 312 registered projects, more than €25bn of potential investment, two FIDs totalling 400 MW in 2026, and a project count down from nearly 400 in a year. The Moeve Andalusian valley (2 GW ambition, 2029 target) is the named test. Electrolysis without offtake is a speculative position; refinery-linked projects such as Repsol's Bilbao plant have a named industrial buyer. Hydrogen's narrow niche (refining, ammonia, some ports) is consistent with one interpretation that favours direct electrification for most other uses.

Source 11

ARG-10 ARGUMENT / INFERENCE; DESIGN PRINCIPLE WITH PARTIAL EVIDENCE

The stable, owned capabilities are the enabling layer, and they are where the investment case is least dependent on any single external cycle

Across the analysis, the most robust asset class is the enabling layer that the country needs whatever the external cycle does: grid reinforcement and network capex, verification and metering, port electrification, water measurement, housing delivery with public partners, and clinical or manufacturing services with multi-client contracts. These share a feature: their revenue

is paid by a regulated or contracted buyer, their physical need persists when a particular customer withdraws, and their failure modes are measurable. The enabling layer does not guarantee outperformance. It limits the damage from the external cycles described above and creates the conditions for the lead, if it lasts, to convert into capacity.

ARG-11 ARGUMENT / HYPOTHESIS WITH A CHEAP TEST

The decade is decided by whether labour, skills and care already in Spain can be used more fully, and the test is measured and cheap

The labour story so far is extensive: growth has come from hours and population, not hourly output. A second labour channel, credential recognition, unpaid care and skill mismatch, could raise effective labour without new inflows. It is plausible and unmeasured. Spanish administrative data on recognition backlogs, care waiting lists and vacancies were not retrieved. The channel matters most if migration politics tighten, because it is the one labour lever that does not depend on inflows. A matched evaluation of placements, hours and 12-month retention could test it at small cost.

ARG-12 ARGUMENT / INFERENCE; DISCIPLINE PRINCIPLE

The unlimited-capital mandate is a market player's problem: deployment must be capped by verified capacity and staged by contract

An investor with unlimited capital becomes the marginal bidder for scarce permits, grid positions, land and skilled installers, and so raises the cost of the returns it seeks. A defensible programme therefore has three features: capital is released against contracted or regulated revenue and measured delivery; each segment has a ceiling tied to observed capacity; and entry valuation is compared with a global alternative and reported in the base currency. The investment advice is consistent on this discipline across the analysis, even where sector rankings differ.

Open questions

UQ-01 OPEN QUESTION

Does Spain outgrow the EU-27 (not only the euro area) on cumulative real GDP through 2036, on a matched series with consistent revisions?

UQ-02 OPEN QUESTION

What is the status-disaggregated grid position (applied, allocated, connected, operating; IT versus electrical MW) once a primary REE ledger is obtained, and does the reported 6,329 MW granted figure hold?

UQ-03 OPEN QUESTION

Will the final decree keep the transitional curtailment clause without compensation, add a firmness or capacity payment, or relax the schedule?

UQ-04 OPEN QUESTION

Does the Spanish evening marginal power price move with TTF in a stable pass-through, and at what level does the storage firmness value cover its cost?

UQ-05 OPEN QUESTION

What is the post-election policy on the decree, rent rules and migration, and does it keep or reverse the current settings?

UQ-06 OPEN QUESTION

Does labour productivity per hour move against the EU-8 and EU-27 ratios, and does private employment recover in the first half of 2027?

UQ-07 OPEN QUESTION

Do basin-level net withdrawals fall after irrigation modernisation, measured against a matched district over two seasons?

UQ-08 OPEN QUESTION

Does value per container at Spanish ports rise with throughput, and what share of traffic is transshipment?

UQ-09 OPEN QUESTION

Does product-level data show rising domestic value added in Spanish pharma, or is the trade deficit structural?

UQ-10 OPEN QUESTION

Is the Spanish sovereign spread to Bunds at a level that a primary series confirms, and does it widen as US AI-bond supply and the ECB path tighten?

UQ-11 OPEN QUESTION

Does the Moeve Andalusian valley commission on schedule in 2029 with binding offtake, and does a second billion-level FID appear?

UQ-12 OPEN QUESTION

Does the US AI capex cycle turn in 2027–2028, and does it defer any named Spanish campus with its contracts?

UQ-13 OPEN QUESTION

Can a skills, recognition and care pilot deliver net additional hours and placements after displacement?

UQ-14 OPEN QUESTION

Do insurance, mortgage or irrigation-right prices reprice in exposed localities before yields change?

UQ-15 OPEN QUESTION

Is the 12% olive-oil stockholding a one-season abundance measure or a standing market-management regime, and how is it financed?

What this analysis does not cover

GAP-01 COVERAGE LIMIT

Weather and the El Niño translation into Spanish rainfall and grain or olive yields

MISSING EVIDENCE No basin-level rainfall or yield forecast for winter 2026–27; the super El Niño is a global report, and its translation into Spanish rainfall remains open.

WHY IT MATTERS Water and agricultural claims must stay scenario-based; no Spanish harvest outcome should be asserted.

GAP-02 COVERAGE LIMIT

Grid and connection status (applications, allocations, connections, operating MW)

MISSING EVIDENCE A dated, status-disaggregated REE ledger; the reported 6,329 MW granted figure is untraced and conflicts in scale with the 8.7–12 GW summaries.

WHY IT MATTERS Pipeline figures must be reported with their status and date; the granted figure is excluded from headline claims.

GAP-03 COVERAGE LIMIT

EU-27 comparison and primary output-per-hour series

MISSING EVIDENCE No INE, Eurostat, ONS or BEA matched series for real GDP, hours, population and output per hour over a common interval.

WHY IT MATTERS The decade verdict is probable on the euro area and UK comparison and not established against the EU-27 on any per-resident measure.

GAP-04 COVERAGE LIMIT

Industrial electricity prices and the gas pass-through to Spanish industry

MISSING EVIDENCE Comparable industrial tariffs for Spain, Germany, France and the UK (with grid charges and taxes), and forward power prices traced to an exchange record.

WHY IT MATTERS The 'cheapest electricity' claim is withdrawn; the gas-set evening price is reported as a mechanism, not a measured cost.

GAP-05 COVERAGE LIMIT

Public procurement and governance of EU-funded infrastructure

MISSING EVIDENCE Audit or procurement outcomes beyond a reported fraud probe on the Urda rail line; no port or shore-power procurement audit.

WHY IT MATTERS Public-funded assets are presented with a governance condition, not a performance claim.

GAP-06 COVERAGE LIMIT

Housing supply by locality and rent-rule effects

MISSING EVIDENCE Permits and completions by municipality, rent-regulated and unregulated listings, and new-build finance terms.

WHY IT MATTERS The shortfall is reported as a gap between completions and households; effects of rent rules are unresolved.

GAP-07 COVERAGE LIMIT

Spanish operating storage and flexibility revenues

MISSING EVIDENCE Realised revenue by stream for operating batteries against underwriting, and any metered flexible-load case.

WHY IT MATTERS The storage and flexibility theses are presented as design principles and hypotheses, not as measured returns.

GAP-08 COVERAGE LIMIT

Spanish defence and aerospace

MISSING EVIDENCE Budget, procurement pipeline and company economics for Spain.

WHY IT MATTERS Defence is an option with no allocation; it is named as a research gap, not a null result.

GAP-09 COVERAGE LIMIT

Labour recognition, care and skills data

MISSING EVIDENCE Administrative data on credential backlogs, care waiting lists, vacancies and placements.

WHY IT MATTERS The labour-release channel is a hypothesis with a proposed test only.

GAP-10 COVERAGE LIMIT

Financial market levels and positioning for the decision date

MISSING EVIDENCE Primary-source EUR/USD, US 10-year, gilt, S&P 500, FTSE and DAX levels on the observation date; CFTC positioning; freight and fertiliser prices; Spanish spread from a primary series.

WHY IT MATTERS Market figures are presented only where traced to a dated source; the spread is reported as a monitoring level.

GAP-11 COVERAGE LIMIT

Freight, fertiliser and trade flows for Spanish exports

MISSING EVIDENCE Baltic indices, fertiliser price prints, Spanish goods trade balance and production data.

WHY IT MATTERS No freight or fertiliser conclusion is drawn; these remain open data items.

GAP-12 COVERAGE LIMIT

Lithium, battery cell and critical-mineral supply to Spanish storage

MISSING EVIDENCE Cell prices, licensing and equipment lead times for Spanish storage projects tied to Chinese suppliers.

WHY IT MATTERS The China storage dependency is a hypothesis with a named test, not a measured cost.

GAP-13 COVERAGE LIMIT

Spanish water insurance and mortgage conditions

MISSING EVIDENCE Consorcio and private claims and terms by locality; mortgage availability after events.

WHY IT MATTERS The insurance transmission remains untested.

GAP-14 COVERAGE LIMIT

Post-election policy direction

MISSING EVIDENCE The official election calendar and the policy programmes of the parties on the decree, housing and migration.

WHY IT MATTERS The election is reported as a press-reported date; its effects are presented as a path, not a forecast.

The figures

FIGURE	VALUE	OBSERVED	CHANGE	KIND
IMF forecasts Spain real GDP growth at 2.5% in 2026 and 1.8% in 2027, against 1.1% and 1.2% for the euro area **WHY IT MATTERS** It is the strongest institutional basis for the near-term growth lead, and it is a forecast, so it cannot establish the decade.	**2.5 / 1.8 (Spain); 1.1 / 1.2 (euro area) % real GDP growth, year on year**	forecast published October 2026	not applicable	**OFFICIAL ESTIMATE** Sources 36, 56
Spanish unemployment rate rose to 10.18% in Q3 2026 from 9.87% in Q2, above a 9.9% consensus **WHY IT MATTERS** The labour-market cushion is thin, which is relevant to whether AI-led displacement arrives before productivity gains.	**10.18 (Q3), 9.87 (Q2) % of labour force**	Q3 2026	+0.31 points q/q	**OBSERVED** Sources 28, 53
Draft decree: 80% of data-centre consumption from renewables matched hourly; transitional route 60% peak coverage to end-2028, then 70% peak and 60% off-peak from 2029, conditional on accepting uncompensated disconnection **WHY IT MATTERS** It is the decisive regulatory parameter for grid and data-centre economics; the transitional curtailment clause is the new fact.	**80; 60; 70 % of consumption covered by renewables**	as reported 26 October 2026, with later summaries of Council of State approval of its opinion on 6 November	threshold moved from 1 MW to 10 MW; five-year window	**OFFICIAL ESTIMATE** Sources 07, 60, 61
Data-centre installed IT capacity 439 MW at end-2025 (+24%), projected about 2,500 MW by 2030 **WHY IT MATTERS** IT capacity is not grid load; the 2030 figure is a forecast and industry-sourced.	**439; 2500 MW of IT capacity**	end-2025; 2030 projection	+24% in 2025	**FORECAST** Sources 43, 58
Hydrogen: 312 registered projects, over €25bn potential, two final investment decisions in 2026 totalling 400 MW electrolyser; registered count down from nearly 400 in a year **WHY IT MATTERS** It is the clearest evidence that hydrogen is a pipeline, not a market; units differ and must not be merged.	**312; 25; 2; 400 projects; €bn; FIDs; MW electrolysis**	2026, as reported 26–27 October	count down from ~400 to 312 year on year	**OBSERVED** Sources 09, 13
Moeve Andalusian Green Hydrogen Valley Phase 1: over $1.2bn, 2 GW electrolysis ambition, operation targeted 2029 **WHY IT MATTERS** It is the one named test for hydrogen's 2029–2030 reckoning point.	**1.2; 2 US$bn; GW**	project announced 2026	not applicable	**FORECAST** Sources 10, 12
TTF front-month gas €85.588/MWh on 6 November, down 5.61% on the day **WHY IT MATTERS** The gas price sets Spanish evening power, so it is the mechanism by which the Gulf shock reaches Spanish industry.	**85.588 €/MWh**	6 November 2026 close	−5.61% on the day	**OBSERVED** Source 37

FIGURE	VALUE	OBSERVED	CHANGE	KIND
IBEX 35 closed at 19,754 on 9 November, +1.99% on the day, led by banks and energy; 19,369.50 on 6 November, +3.84% that week; calculated YTD about +14% **WHY IT MATTERS** The equity market has already priced part of the lead; returns from here depend on entry valuation and the rate path.	**19754; 1.99; 19369.5; 3.84; 14 index points; %**	6 and 9 November 2026	+1.99% on 9 Nov; +3.84% on the week to 6 Nov	OBSERVED Sources 27, 45
ECB deposit facility rate 2.50%, held on 29 October (main refinancing 2.65%, marginal lending 2.90%); market expects a move to 2.75% in December **WHY IT MATTERS** The policy path sets the cost of the refinancing and housing finance the growth model needs; the December move is a market expectation, not a decision.	**2.50; 2.65; 2.90; 2.75 % policy rates**	29 October 2026 decision; December expectation as of early November	hikes in June and September	OFFICIAL ESTIMATE Sources 31, 32, 99
Fed funds range 3.75–4.00%, held 28 October (10–2 vote); market implies 85.7% probability of a 25bp hike on 9 December **WHY IT MATTERS** A stronger US rate path tightens global conditions and raises the cost of capital for Spanish projects.	**3.75–4.00; 85.7 % range; % probability**	29 October 2026 decision; 9 December pricing as reported 28 October.	two dissents for a hike	OFFICIAL ESTIMATE Sources 39, 42, 100
UK Bank Rate raised to 4% on 5 November (8–1 vote); CPI 3.5% in September, projected to rise **WHY IT MATTERS** The UK's own tightening and its 2027 slowdown set the comparator's near-term trajectory.	**4; 3.5 % Bank Rate; % CPI y/y**	5 November 2026; September 2026 CPI	+0.25 point	OFFICIAL ESTIMATE Sources 40, 41, 85
Spanish CPI flash October 4.9% y/y (core 3.1%); +0.6% m/m **WHY IT MATTERS** Spanish inflation above the euro area erodes competitiveness and tightens the ECB path.	**4.9; 3.1; 0.6 % y/y; % m/m**	October 2026	steady at 4.9% vs September	OBSERVED Sources 29, 31
Industrial output since end-2019: Spain +10.9%, Germany −2.2%, France flat, Italy +1.1% **WHY IT MATTERS** The strongest relative industrial indicator, but it measures output volume and is partly an AI-equipment and pharma effect.	**10.9; −2.2; 0; 1.1 % change, industrial output**	end-2019 to October/ September 2026	cumulative since end-2019	OBSERVED Sources 54, 65
Teva Zaragoza: 8,700 million doses a year, target 10,000 million; about 87% of output for export; Spanish pharma trade deficit above €4bn with exports above 80% of production **WHY IT MATTERS** It shows volume and trade balance together; they answer different questions and must not be read as value capture.	**8700; 10000; 87; 4; 80 million doses; %; €bn; %**	2025–2026	not applicable	OBSERVED Sources 68, 69
Alicante coast tourism thermal-comfort losses projected at €253 million a year from 2050 **WHY IT MATTERS** It is a long-horizon, single-region scenario, not a decade forecast; use only with that caveat.	**253 €m per year**	scenario, from 2050	not applicable	CALCULATED Source 74
Driest hydrological year in Spain projected for 2046–47 in one MDPI study; 2030–2040 mostly normal to slightly dry **WHY IT MATTERS** A point result, not a countdown; scenario range only.	**2046–2047 year**	projection, 2026 publication	not applicable	CALCULATED Source 73
Mandatory olive-oil stockholding: 12% of monthly declared production held November 2026 to September 2027 to prevent price collapse after an abundant harvest **WHY IT MATTERS** A market-management episode and an inventory-finance question, not a climate signal.	**12 % of monthly output**	November 2026 to September 2027	not applicable	OBSERVED Sources 23, 46

FIGURE	VALUE	OBSERVED	CHANGE	KIND
Valencia shore-power substation (ST2) tender €18.7m, doubling supply capacity, target operation 2028; Algeciras southern road access €43.34m **WHY IT MATTERS** Funded, dated, concrete port infrastructure that clears whatever the cargo outcome.	**18.7; 43.34; 2028 €m; year**	tendered October 2026	not applicable	**OFFICIAL ESTIMATE** Sources 14, 15, 16
US payrolls rose by 165,000 in October 2026; unemployment 4.1% **WHY IT MATTERS** A strong US labour base that keeps the US a credible comparator on aggregate growth.	**165000; 4.1 jobs; % of labour force**	October 2026	not stated	**OBSERVED** Sources 51, 52
IMF US real GDP growth 2.3% in both 2026 and 2027; Spain 2.5% (2026) and 1.8% (2027), so Spain leads by 0.2 points in 2026 and trails by 0.5 in 2027 (calculated) **WHY IT MATTERS** The US comparison on aggregate growth is near even in 2026 and behind for Spain in 2027; no IMF medium-term US figure was found.	**2.3; 2.3; 0.2; −0.5 % real GDP growth; points**	2026–2027 forecasts	not applicable	**OFFICIAL ESTIMATE** Sources 33, 36
UK OBR trend productivity 0.7% in 2027 rising to 1.1% by 2031; UK real GDP 1.3% (IMF 2026) and 1.2% (2027), OECD 1.1% and 1.0% **WHY IT MATTERS** The UK's productivity trend is the decade comparator; a recovery to 1.1% narrows Spain's relative margin.	**0.7; 1.1; 1.3; 1.2; 1.1; 1.0 % growth or productivity**	2026–2031 forecasts	not applicable	**OFFICIAL ESTIMATE** Sources 35, 71
Spanish GDP forecast: Airef 2.6% (2026) and 2.2% (2027); CaixaBank 2.6% and 2.0%; European Commission 2.4% (2026) vs euro-area 0.9% **WHY IT MATTERS** Convergent institutional forecasts give the near-term lead its credibility.	**2.6; 2.2; 2.6; 2.0; 2.4; 0.9 % real GDP growth**	October–November 2026	not applicable	**FORECAST** Sources 66, 76, 83
Spanish public debt 95.4% of GDP; deficit 2.6% of GDP (2027) **WHY IT MATTERS** The refinancing base that makes the sovereign spread a first-order risk.	**95.4; 2.6 % of GDP**	end-forecast horizon, 2027	deficit easing	**FORECAST** Source 83

The calendar ahead

DATE	EVENT	WHY IT MATTERS	PATHS
29 November 2026 not stated in the record	Spanish general election Sources 07, 44, 97	A new government would set the final decree text, the housing and rent rules and migration settings in the same window.	PATH-02 · PATH-13 · PATH-11
9 December 2026 14:00 ET (as stated in record)	Fed FOMC decision with projections Sources 39, 42	A hike at 85.7% implied probability would tighten the global cost of capital that Spanish finance depends on.	PATH-09
17 December 2026 14:15 CET (as stated in record)	ECB monetary policy decision with new projections Sources 31, 32	A move to 2.75% would confirm the tightening path and affect Spanish sovereign and housing finance.	PATH-09 · PATH-03
13 November 2026 08:00 GMT (as stated)	Spain final October CPI Source 29	Confirms whether the 4.9% flash inflation rate holds and whether competitiveness erosion persists.	PATH-09
12 November 2026 not stated	UK Q3 GDP release Source 35	A first read on whether the UK slowdown is as forecast, which sets the UK comparator.	PATH-10

DATE	EVENT	WHY IT MATTERS	PATHS
2 December 2026 08:00 GMT (as stated)	Spanish registered unemployment for November Source 28	The first monthly read after the Q3 employment slowdown.	PATH-05 · PATH-01
expected within roughly six months (press expectation; not dated) not stated	Final text of the data-centre Royal Decree and the Council of Ministers approval Sources 06, 07, 60	The decisive regulatory fork for grid, storage and data-centre economics, including whether the curtailment clause survives.	PATH-02 · PATH-03 · PATH-04
2029 target (ambition; not dated in record) not stated	Moeve Andalusian Green Hydrogen Valley Phase 1 commissioning and any second FID Sources 10, 12	The named reckoning point for hydrogen; a delay or a second billion-level FID changes the option's value.	PATH-12
2028 target not stated	Valencia shore-power substation (ST2) commissioning Sources 14, 15	A concrete, funded port milestone that tests the port-equipment thesis.	PATH-08
September 2027 (order runs November 2026–September 2027) not stated	Olive-oil stockholding obligation period ends Sources 22, 46	The order's end and the price path after it test whether the measure was a one-off or a standing market-management regime.	PATH-06
February 2027 (reported) not stated	Lagarde's early departure from the ECB Sources 05, 44	A leadership change at the ECB during a tightening cycle could move the sovereign spread and housing finance.	PATH-09
January–February 2027 (typical release; not dated in record) not stated	Spain Q4 2026 quarterly national accounts and the euro-area comparison Source 30	Tests whether the 2026 lead persists into 2027 as forecasts assume.	PATH-01
rolling; US business-investment prints quarterly not stated	US AI-capex and tech-earnings cycle (AI-bond issuance and business investment prints) Sources 47, 95, 96	The external cycle that funds the data-centre pipeline and tests the hyperscaler exit option.	PATH-04 · PATH-09 · PATH-10
ongoing; US strike warnings reported 9 November not stated	Middle East and Hormuz escalation or de-escalation Sources 86, 93, 94	The gas and freight channel that sets the Spanish evening power price and port route economics.	PATH-03 · PATH-08
December 2026 (peak expected; not a Spain-specific forecast) not stated	Super El Niño peak expected Sources 04, 50	A global climate episode whose Spanish rainfall translation is an open question; watch basin rainfall in the winter months.	PATH-06
mid-December 2026 (as stated) not stated	Mid-December parliamentary debate on the Franco-German auto accord Source 63	Shapes European auto-supplier competition in which Spanish automotive exposure sits.	PATH-10
continuous not stated	Spanish-Bund spread and Spanish 10-year yield, daily Sources 26, 45	The kill-switch observable for housing, data-centre finance and the sovereign story.	PATH-09
two irrigation seasons from first measurement not applicable	Basin water-withdrawal and groundwater records for irrigation districts (for the two-season test) Source 72	The only test that distinguishes net basin savings from efficiency-driven rebound.	PATH-06

THE FULL INTELLIGENCE

Inside the Garden

Every path in full: assumption, alternative, consequences, early indicators, breakpoints, weakening signals and connected paths.

Spain's lead holds only while a set of assumptions holds. Begin with the fade of the lead and peer recovery, which test the borrowed position. Then the decree fork and its political reset. Then the coupled shocks, which can fail together. Last come the slower forks in people, water, ports, pharma and hydrogen. Each path is conditional and reversible; none carries odds.

PATH-01 DEVELOPING

The rented lead fades

ASSUMPTION

Spain's aggregate lead over the euro area, the UK and (narrowly) the US holds through the decade, sustained by hours and population, with growth gradually converging toward a potential rate of about 1.7%. The lead is probable, not established: 2026 and 2027 forecasts from the IMF, CaixaBank and AIReF put Spain near 2.5–2.6% against about 1.1% for the euro area.

THE ALTERNATIVE

Migration-fed employment slows and the NGEU impulse fades in 2027 while productivity stays flat. The aggregate lead narrows to noise by the early 2030s.

WHAT FOLLOWS

- Private employment and hiring slow. Q3 2026 national data are reported at employment +0.3% quarter on quarter and private employment −16,300; both figures are not independently verified in this record.
- NGEU absorption ends and public investment loses its impulse in 2027.
- Labour growth drops, growth reverts to the supply trend and the aggregate gap with peers narrows.

EARLY INDICATORS

- Monthly registered unemployment and the private employment series
- Q4 2026 and Q1 2027 national accounts
- Net migration series after the general election reported for 29 November 2026

BREAKPOINTS

- Two consecutive quarters of private employment decline together with a fall in hours worked per employed person
- Spain's aggregate growth gap to the euro area falling below about 0.5 points in the 2027 forecast revisions
- Output per hour against the EU-8 failing to move on a common definition after three years

WHAT WEAKENS IT

- Private hiring recovers; NGEU is replaced by private investment; productivity per hour starts rising from its base of about 74% of the EU-8 level (BBVA Research, reported via secondary summaries)

CONNECTED PATHS

PATH-05 · PATH-11 · PATH-13

PATH-10 DEVELOPING

Peer recovery narrows Spain's relative lead

ASSUMPTION

German, French and UK weakness persists through the decade, sustaining Spain's relative position. Part of Spain's near-term lead reflects German industrial weakness and UK rate tightening, and both conditions can reverse.

THE ALTERNATIVE	German industrial demand recovers on defence and AI-electronics spending, and the UK's productivity trend rises to 1.1% by 2031. The relative gap closes.
WHAT FOLLOWS	• German electronics and defence-linked demand lift industrial orders. • The UK productivity trend rises and Bank Rate, raised to 4% on 5 November, eases after the 2027 slowdown. • Spain's relative industrial and growth lead narrows toward the euro-area average.
EARLY INDICATORS	• German industrial production and orders over two quarters • UK Q3 GDP, scheduled for 12 November • OBR productivity revisions
BREAKPOINTS	• German industrial output turns up for three consecutive quarters • UK trend productivity revised above 1.0% for 2027
WHAT WEAKENS IT	• German autos and chemicals remain below late-2017 levels into 2027
CONNECTED PATHS	PATH-01

PATH-02 DEVELOPING

Flexibility rationed, not paid

ASSUMPTION	The 80% hourly renewable-matching rule proceeds with its transitional route, data-centre load grows toward the government's and industry's scenarios, and grid and storage investment follows.
THE ALTERNATIVE	The final text keeps uncompensated automatic curtailment for the transitional route and adds no firmness or capacity payment. Operators then either accept curtailment at low value or buy firmness themselves, and the grid and storage thesis narrows to a cost-saving service with thin margins.
WHAT FOLLOWS	• Operators take the transitional regime, accepting disconnection without compensation. The five-year window is not a costless grace period: it trades access for curtailment risk. • Financing assumptions for data-centre and storage projects are repriced for curtailment risk. • Pipeline conversion stays well below headline requests (grid-connection requests of 8.7–12 GW, with about a quarter allocated; the definitions are unreconciled). Grid investment is driven by renewables and households rather than data-centre load, and the paid layer does not widen.
EARLY INDICATORS	• Council of Ministers text and the status of the curtailment clause • Operator statements on accepting the transitional regime • Any firmness or capacity auction mechanism for Spain
BREAKPOINTS	• Final decree published with the transitional curtailment clause unchanged and no capacity or firmness payment • A reduction order issued to a data-centre operator under the regime • Connected data-centre load in the grid ledger stays far below the requested figure through 2028
WHAT WEAKENS IT	• A firmness payment or capacity mechanism in the final text • The transitional clause softened to include compensation
CONNECTED PATHS	PATH-03 · PATH-04 · PATH-13

PATH-13 UNRESOLVED

The post-election government rewrites the decree, rent rules and migration settings together

ASSUMPTION

The decree, housing and migration rules proceed on their current paths through the election.

THE ALTERNATIVE

A new government re-cuts the decree (transitional route, threshold, curtailment) and housing and migration rules in one package, changing the revenue structure of data centres and storage at once.

WHAT FOLLOWS

- The result of the general election reported for 29 November 2026 (its calendar and effects are not verified in the record) sets the government's priorities.
- The decree text is rewritten or delayed, and curtailment and firmness terms change.
- Investor expectations for grid, storage and housing reset together.

EARLY INDICATORS

- Election outcome and coalition terms
- Council of Ministers text
- Housing and migration ministers appointed

BREAKPOINTS

- The decree is re-tabled with different curtailment or threshold terms
- Rent or migration rules change in the first post-election budget

WHAT WEAKENS IT

- Continuity of the decree and housing policy across the change of government

CONNECTED PATHS

PATH-02 · PATH-11

PATH-03 DEVELOPING

Gas sets the evening price and tightens money

ASSUMPTION

Spain's renewables insulate its power prices from gas, and the ECB path stays near its current level (deposit rate 2.50%, held on 29 October).

THE ALTERNATIVE

A sustained Hormuz disruption keeps TTF in the high €80s per MWh or above and lifts Spanish evening power prices. Spanish and euro-area inflation stays elevated, and the ECB moves up in December and beyond; the market already expects a move to 2.75% in December.

WHAT FOLLOWS

- Gulf escalation raises TTF and Brent (TTF €85.588/MWh on 6 November; Brent reported at $93.98 on 9 November, a figure not verified in this record).
- Spanish evening marginal power prices, which are gas-set, rise. That raises industrial costs and, in the short run, the firmness value of storage.
- Inflation (Spanish October CPI flash reported at 4.9%, not verified in this record) and expected policy rates rise, and sovereign and housing finance costs increase.

EARLY INDICATORS

- TTF and Brent over several weeks
- Spanish final October CPI, due on 13 November
- ECB decision, scheduled for 17 December
- Hormuz insurance and transit reports

BREAKPOINTS

- TTF sustained above the high €80s through a winter month
- An ECB hike at the December meeting
- The Spanish 10-year spread to the Bund widening materially from its reference level of about 58 bp, a monitoring level pending a primary series (the Spanish 10-year yield was reported at 3.825% on 9 November)

WHAT WEAKENS IT

- A Hormuz agreement that lowers gas quickly (an unverified forecast from a gas-price information site points this way)
- ECB holds and the market expectation of a December move fades

CONNECTED PATHS

PATH-04 · PATH-09 · PATH-08

PATH-09 DEVELOPING

The sovereign spread reprices housing, infrastructure and data-centre finance together

ASSUMPTION

Spanish sovereign spreads stay contained and ECB policy stays close to current levels, so financed real assets earn their assumed margins.

THE ALTERNATIVE

Euro-area policy tightens, and AI-bond supply and the energy shock widen the Spanish spread. Development margins, data-centre finance and sovereign refinancing then reprice together.

WHAT FOLLOWS

- The ECB holds or hikes, a Fed hike is priced if the rate path tightens, and UK rates stay at 4%.
- The Spanish 10-year yield (3.825% on 9 November, as reported) and the Bund spread widen from the observed levels.
- Financed housing and infrastructure margins fall and refinancing costs rise on a debt base reported at about 95% of GDP (a figure not verified in this record).

EARLY INDICATORS

- Spanish–Bund spread on the primary series
- ECB decision, scheduled for 17 December
- Lagarde succession, expected in February 2027

BREAKPOINTS

- The spread moves materially wider than the reference of about 58 bp (a monitoring level pending a primary series), sustained over weeks
- A policy hike in December
- A weak Spanish auction or a rating downgrade

WHAT WEAKENS IT

- ECB holds and the December expectation fades
- The spread holds near its reference level through the energy shock

CONNECTED PATHS

PATH-03 · PATH-04 · PATH-08

PATH-04 SPECULATIVE

The AI capex turn reaches Spain through the campus, the storage queue and the same savers as the sovereign

ASSUMPTION

The hyperscale pipeline proceeds broadly as headlined, and the grid and storage investments are independent of any single campus.

THE ALTERNATIVE

A global AI-capex slowdown in 2027–2028 defers hyperscale commitments. Storage and water assets lose their common customer, and AI-bond issuance crowds out Spanish sovereign demand.

WHAT FOLLOWS

- US AI returns are doubted, tech stocks sell off and some hyperscale deferrals follow.
- Spanish campuses are deferred, and storage and water customers and the heat recipient disappear together.
- AI bonds compete with sovereign paper, and Spanish spreads widen even without Spanish campuses.

EARLY INDICATORS

- US business investment and AI-bond spreads
- Reports of hyperscale customer cancellations or deferrals in Spain
- The Spanish 10-year spread

BREAKPOINTS

- A cancellation of a named Spanish campus with its power and water contracts
- Two consecutive quarters of falling US business investment in AI-exposed categories
- Spanish spread widening together with US tech deferrals

WHAT WEAKENS IT

- The tech recovery after the midterm sell-off holds
- Campus deferrals are reported as timing only

CONNECTED PATHS

PATH-02 · PATH-03 · PATH-09

PATH-15 **SPECULATIVE**

A Gulf shock and a rate shock together damage the storage and grid thesis's cash flows

ASSUMPTION

The gas and rate shocks affect the storage thesis in opposite directions, and their net effect is positive for contracted storage.

THE ALTERNATIVE

Gas volatility widens spreads in the short run. Then the rate path tightens finance and AI capex weakens, and the leveraged storage fleet refinances badly.

WHAT FOLLOWS

- Spreads widen with gas, a short-run merchant gain.
- Rates rise and project debt becomes costlier.
- AI-linked demand softens, storage revenues compress, and highly levered merchant projects sell at a loss.

EARLY INDICATORS

- Operating storage revenue by stream (not yet in the record)
- The Spanish 10-year spread
- Storage financing terms

BREAKPOINTS

- Merchant storage revenues falling for two quarters while debt service rises
- Storage project sales at a loss

WHAT WEAKENS IT

- Contracted firmness revenue rising, with debt sized on contracted cash flows

CONNECTED PATHS

PATH-03 · PATH-04 · PATH-09

PATH-11 SPECULATIVE

Migration and housing politics reset the population base after the election

ASSUMPTION

Migration continues at recent rates and the housing gap is managed through the existing policy mix.

THE ALTERNATIVE

A post-election government restricts inflows or hardens rent controls. The labour base slows, planning stalls and the migration-funded lead narrows.

WHAT FOLLOWS

- The new government sets migration and rent provisions in the same window as the decree.
- Net migration and new-household formation slow.
- Aggregate growth and fiscal space narrow, and housing supply stays constrained (a completions-versus-households gap of about 750,000 homes since 2021, definition-dependent).

EARLY INDICATORS

- Post-election migration and rent provisions
- Net migration series
- Housing completions against households

BREAKPOINTS

- A binding migration restriction in the post-election programme
- Net migration turning negative in official series

WHAT WEAKENS IT

- Net migration holds and planning reform lifts completions

CONNECTED PATHS

PATH-01 · PATH-13 · PATH-05

PATH-05 SPECULATIVE

Skills and care release lift output per resident without new inflows

ASSUMPTION

Resident labour is used at its current level, growth depends on new inflows and the productivity ratio stays flat.

THE ALTERNATIVE

Faster qualification recognition, bridging and care capacity move qualified residents and carers into matched work. Hours and output per resident rise without proportionate migration.

WHAT FOLLOWS

- Recognition backlogs and care gaps shrink in a pilot corridor with an accountable payer.
- Placements and carer hours rise against a matched comparison group, net of displacement.
- If replicated, aggregate hours and output per resident rise, and the migration-dependence of the lead falls.

EARLY INDICATORS

- Administrative data on recognition times and placements (not yet in the record)
- Care waiting lists and provider capacity
- Matched pilot results at 12 months

BREAKPOINTS

- Matched evaluation shows positive net additional placements and hours after displacement
- Wage or retention outcomes improve for carers and technicians in the pilot

WHAT WEAKENS IT

- Placements substitute for hiring that would have occurred anyway
- Quality or safety falls with the expansion

CONNECTED PATHS

PATH-01 · PATH-11

PATH-06 DEVELOPING

Water becomes a price and credit constraint before it is a yield constraint

ASSUMPTION

Water scarcity is a gradual, long-run cost for agriculture and tourism, mitigated by efficiency investment.

THE ALTERNATIVE

Allocation tightening, insurance repricing and irrigation-right transfer prices move ahead of physical shortfalls. Efficiency-driven expansion keeps basin withdrawals flat while the basin authority tightens caps, and growers face credit squeezes when prices are managed.

WHAT FOLLOWS

- The 12% olive-oil stockholding order, a response to an abundant harvest and the risk of price collapse rather than to drought, requires growers to hold unsold stock.
- Efficiency gains fund expansion, net basin consumption does not fall and the authority tightens allocation.
- Insurance, mortgage and water-right prices in exposed localities reprice before yields fall.

EARLY INDICATORS

- Basin withdrawal and groundwater records for irrigation districts
- Olive-oil price path and the end of the stockholding period
- Winter rainfall during the expected peak of the El Niño episode

BREAKPOINTS

- Net basin consumption rising in a district after modernisation, against a matched district
- Repricing of irrigated land or water rights in a basin
- Insurance or mortgage terms worsening in a flood or drought locality

WHAT WEAKENS IT

- Net basin withdrawals fall with verified savings and no expansion
- Rainfall recovers in the winter peak

CONNECTED PATHS

PATH-07 · PATH-14

PATH-14 UNRESOLVED

Water scenario risk arrives as a single-year shock that reprices assets before the decade ends

ASSUMPTION

Water stress is a gradual cost through the 2030s and does not produce a discrete shock within the decade.

THE ALTERNATIVE

A drought year in one or more basins arrives earlier than the central scenarios, with immediate effects on irrigation allocation and tourism comfort.

WHAT FOLLOWS

- A dry year in a stressed basin reduces allocations.
- Farm and tourism cash flows fall and credit tightens.
- Asset prices in the basin reprice and public emergency spending rises.

EARLY INDICATORS

- Basin rainfall and reservoir levels
- Winter peak of the El Niño episode
- Allocation notices by the basin authority

BREAKPOINTS

- A basin allocation cut of a material share in one season
- Emergency measures in two or more tourist coastal basins in one year

WHAT WEAKENS IT

- Rainfall recovers and allocations hold

CONNECTED PATHS

PATH-06

PATH-08 CONTESTED

Ports capture equipment and service value; terminal margins depend on carriers

ASSUMPTION

Spain's geography and Chinese-linked investment deliver durable local port value. Chinese logistics leasing above 2.5 million m^2 is leased area, not ownership or control of ports or cargo.

THE ALTERNATIVE

Traffic rises through rerouting while value per container falls. Carriers capture the option premium, and the terminal and landlord margin does not follow.

WHAT FOLLOWS

- Middle East disruption and insurance costs redirect some transshipment.
- Carriers negotiate fees down while Spanish ports add throughput.
- Equipment and digital services sell reliably, while landlord and terminal equity earns less per box.

EARLY INDICATORS

- Vessel calls and transshipment share by port (port authority data)
- Terminal revenue per container
- Progress on the Valencia shore-power substation (€18.7m, EU-funded, target 2028)

BREAKPOINTS

- Revenue per container flat or falling while traffic rises for two years
- Shore-power commissioning slipping materially past 2028

WHAT WEAKENS IT

- Transshipment share and fees rising with contracted cargo

CONNECTED PATHS

PATH-03 · PATH-04

PATH-07 SUPPORTED

Pharma stays a service and volume platform; the IP and API value does not move home

ASSUMPTION

The trade deficit reveals where high-value production sits, and Spain's pharma value capture is either growing or shrinking in line with it.

THE ALTERNATIVE

Spanish pharma exports stay volume-led and foreign-owned while the trade deficit, above €4bn, persists. Domestic value capture does not rise.

WHAT FOLLOWS

- Multinational sites add volume with parent-controlled IP and pricing.
- The trade balance stays in deficit as high-value inputs are imported.
- Investors who bought manufacturing volume earn service margins, not IP rents.

EARLY INDICATORS

- Product-level trade and value added (not yet in the record)
- Ownership of new pharma capacity announcements
- Clinical-trial value and domestic IP filings

BREAKPOINTS

- Product-level data show domestic value added in APIs or biologics rising
- A Spanish-owned candidate reaches a licence deal

WHAT WEAKENS IT

- Foreign IP is consistently repatriated into Spanish products

CONNECTED PATHS

PATH-01

PATH-12 CONTESTED

Hydrogen reckons in 2029–2030: a few offtake-backed projects, or a stalled pipeline

ASSUMPTION

The 312-project pipeline (down from nearly 400 a year earlier, with two FIDs in 2026 totalling 400 MW) and the €25bn of potential investment will convert into a meaningful electrolysis market by 2030.

THE ALTERNATIVE

The Andalusian valley slips past 2029 and no second billion-level FID appears. The pipeline stays speculative and green-hydrogen production assets are stranded.

WHAT FOLLOWS

- Offtake contracts remain few, and refinery and port buyers wait.
- Phase 1 commissioning slips or is scaled down.
- The option value on electrolysis-linked services falls, and the narrow niche remains.

EARLY INDICATORS

- Moeve phase 1 milestones
- Refinery offtake contracts (Repsol-Petronor and others)
- Count of FIDs in 2027 and 2028

BREAKPOINTS

- Phase 1 commissioning by 2029 with binding offtake
- At least two further billion-level FIDs with named buyers

WHAT WEAKENS IT

- The count of registered projects falls again without FIDs

CONNECTED PATHS

PATH-03

THE FULL INTELLIGENCE

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