iPurpose.

STRATEGIC ASSESSMENT · MEASUREMENT

INTELLIGENCE WITH INTENT

The Wrong Ledger

A GDP dollar and a GDP yuan are not the same unit. The comparison everyone runs is a category error.

Roughly a fifth of American output is finance, insurance and property, and eight percent of it is rent nobody pays. This paper sorts the China–US comparison by what can actually be verified — and concedes three findings that cut against its own argument.

Author
Jesse James
iPurpose

Date
30 July 2026

Handling
Unclassified
Open source only

Contact
linkedin.com/in/jessecares
+1 250 415 5678

01 — Executive summary

Eight percent of American output is rent nobody pays

The United States imputes the rent that homeowners would notionally charge themselves and books it as national output. It comes to roughly **eight percent of GDP**. China performs the same imputation and books **three to four percent**, despite more than eighty percent of Chinese households owning their homes. Neither country is cheating; both follow the same international convention. They simply arrive at very different numbers, and one of them is the country doing the measuring.

Widen the lens and the divergence is structural. Finance, insurance, real estate and leasing together make up about a fifth of American output — the largest single sector grouping in the economy. Manufacturing is around a tenth, down from better than a quarter in the early 1950s. In China, industry is roughly thirty-six percent of output and manufacturing alone about twenty-five. American industry is about seventeen percent, a figure on which Beijing's statisticians and Washington's most China-sceptical think tank agree.

So when an analyst reports that one economy grew 4.3 percent and the other 2 percent, the sentence is arithmetically fine and analytically empty. The two figures are denominated in units built from different material. This is not a claim that China is secretly larger. It is a claim that the comparison, as universally conducted, does not mean what people think it means.

BOTTOM LINE UP FRONT

Sort every claim by whether it can be independently verified rather than by which government issued it. What survives is physical: China generated **32.3 percent of the world's electricity** in 2024, more than the United States, the European Union and India combined; installed **54 percent of the world's new industrial robots**; and operates **seven of the ten largest container ports**. Those quantities are recorded by German engineers, British shipping registries and importing customs services, not by anyone's statistical bureau. What does not survive is most of the monetary comparison — on either side. This paper also concedes three findings that damage its own thesis, because a paper that concedes nothing is advocacy.

02 — Method

Three tiers, and no exemptions for anybody

The usual practice is to discount Chinese figures and accept Western ones. That is a habit, not a method. Here every institution is scrutinised and the discount depends on what scrutiny finds.

TIER 1 — MIRROR-VERIFIED

Quantities recorded independently by parties with opposing incentives, or agreed across hostile sources. Chinese export tonnage confirmed by importing customs services. A figure both Beijing and a China-bearish consultancy publish. Institutional politics cannot move these, and the argument is built on them.

TIER 2 — SINGLE-SOURCE

One institution's count, no independent mirror. Usable, but the source's funding, governance and stated positions are disclosed alongside the number every time.

TIER 3 — MODEL OUTPUT

Real growth rates, deflators, non-performing loan ratios, hidden debt, total factor productivity. Priors do the heavy lifting on every side. Ranges are given with sources named at both ends and never silently averaged. No conclusion here rests on Tier 3.

One consequence deserves stating plainly. The most-quoted number in Western China analysis — that real growth is roughly half the official rate — is Tier 3. It comes from a commercial consultancy that describes itself as having spent a decade as one of the most outspoken critics of Chinese data credibility. That is a disclosed house view, not a measurement. Against it sits an argument that official GDP has run *below* the main physical activity proxy since the pandemic, because that proxy barely captures services. Both belong in Tier 3. Neither is load-bearing here.

03 — What the unit contains

The composition of a dollar and the composition of a yuan

COMPONENT	UNITED STATES	CHINA	TIER	NOTE
Imputed owner-occupied rent	**~8% of GDP**	**3–4%**	TIER 2	Same convention, different outcome. China owns homes at a higher rate and books less imputed output from them.
Finance, insurance, real estate, leasing	**~20–21%**	**~8% finance**	TIER 2	Largest single US sector grouping. China's finance share is closer than the thesis would like — see the concessions.

COMPONENT	UNITED STATES	CHINA	TIER	NOTE
Manufacturing	**~10–11%**	**~24.7%**	TIER 2	US peak was above 25% in the early 1950s. China's 2025 manufacturing output was about ¥34.67 trillion.
Industry, total	**~17.3%**	**~36.5%**	TIER 1	Roughly double. Beijing's statisticians and Washington's most China-sceptical think tank publish the same ratio.
Services	**~79.7%**	**~56.7%**	TIER 2	Services are genuine wealth. The question is what share of them is intermediation of intermediation.

China revised its 2023 output upward by 2.7 percent in December 2024, to ¥129.4272 trillion. It is worth being precise about why, because the shorthand is usually wrong: the fifth economic census contributed the larger part at ¥2.0257 trillion, and the switch to a rental-equivalence method for housing services — moving toward the practice the OECD uses — contributed ¥1.3433 trillion. The statistical bureau noted the revision affects the level rather than the growth rate. UBS's chief China economist has argued the reformed method still understates household consumption, possibly by as much as five percent of GDP.

> *A country that books eight percent of its output as rent nobody pays is not lying. It is using a convention. So is the country that books three.*

04 — The physical ledger

What survives when you stop trusting anybody

These are the Tier 1 quantities. Every one is recorded by a party with no incentive to flatter Beijing, and several by parties with an active interest in the opposite.

32.3%
Of world electricity generated in China, 2024 — 10,087 TWh, more than the US, EU and India combined.
Energy Institute 2025

54%
Of the world's new industrial robots installed in China in 2024 — 295,000 of 542,076 units.
IFR, Frankfurt

5 : 1
Chinese operational robot stock against American — 2,027,000 versus roughly 393,700.
IFR World Robotics 2025

7 of 10
Largest container ports on Earth are Chinese. Shanghai passed 50 million TEU, a world first.
Upply / MoT

Take the electricity figure seriously for a moment, because it is the one that reorders a reader's mental furniture. Chinese generation rose roughly 74 percent over the past decade. American generation rose about six percent, from 4,363 to 4,635 terawatt-hours. There is no accounting convention, no deflator and no imputation involved. It is a physical quantity measured at the meter, and one country now produces more than twice the other.

The robotics numbers come from the International Federation of Robotics in Frankfurt, which sells data to manufacturers and has no stake in the geopolitical argument. Chinese installations hit their highest level ever recorded in 2024, and for the first time domestic manufacturers took 57 percent of their own home market — the detail that matters more than the headline, because it marks the shift from buying the tools to building them.

Add the bulk materials. China has produced more than half the world's crude steel every year since 2018 and more than a billion tonnes annually since 2020. It produces more than half the world's cement. These are the inputs to everything physical, and the shares are recorded by industry associations in Brussels and Beijing that agree with each other.

05 — Against my own argument

Three findings that damage the thesis

A paper that concedes nothing is advocacy. Each of these emerged from the research and each weakens what I set out to argue.

CONCESSION ONE — CHINA IS FINANCIALISED TOO

The clean story is that the West shuffles paper while China makes things. The Party's own theoretical journal *Qiushi* states that the financial sector's value added reached **over eight percent of GDP, nearly on a par with the levels in the US and the UK**. That is a Chinese state source conceding the point a hostile analyst would make. Add that Chinese property-linked activity ran at roughly a quarter of output at its peak, which is asset-based growth by any definition. Financialisation is not a Western disease. The binary is too clean and I am dropping it.

CONCESSION TWO — THE DEBT GAP IS MUCH SMALLER THAN ADVERTISED

"China is at 300 percent of GDP" is the standard line, and the implied contrast is with a prudent United States. Measured consistently, by the Bank for International Settlements, Chinese total non-financial debt runs about **271 to 285 percent** of GDP and the American figure about **255 percent**. A gap of fifteen to thirty points, not a chasm. Japan, incidentally, is near 394 percent. The composition differs — American debt is more federal, Chinese more corporate and local-government — but anyone using the debt ratio to separate the two economies into categories is using the wrong tool.

CONCESSION THREE — THE PETRODOLLAR ARGUMENT IS MOSTLY WRONG

I expected to find that oil invoicing underwrites dollar power. It does not, and the people who have looked hardest say so plainly. What sustains the dollar is the global stock of dollar-denominated lending and safe-asset provision — the foreign-exchange swap market alone runs beyond a hundred trillion dollars outstanding, with the dollar on roughly ninety percent of it. About forty percent of world trade is invoiced in dollars in transactions with no American party at all. One producer's billing currency is a press release. Anyone building a de-dollarisation thesis on invoicing is building on sand, and that includes people I would otherwise agree with.

06 — The unit is being defended

Revealed preference, and a three-week shelf life

Having conceded that invoicing is cosmetic, here is what remains interesting. The sitting US Treasury Secretary spent June 2026 explaining, on television, that dollar dominance is essential and that everything the administration is doing is pushing the dollar. He said Iranian negotiations would produce dollar invoicing. He said Venezuela was coming back onto the dollar system and the dollar would be the centrepiece of its trade. He noted, pointedly, that Iran had been selling discounted oil to China and not getting dollars. He added that a strong dollar is not about the exchange rate, which he called a price on a screen, but about reserve-currency dominance.

The machinery was real. A general licence authorised Iranian crude sales with dollar-denominated payment, set to expire on 21 August 2026. Released Iranian funds were to be supervised through an escrow arrangement in Doha, with a large share recycled into American grain and pharmaceuticals. Venezuelan oil was de-sanctioned, an executive order shielded Venezuelan revenue held in US Treasury accounts from courts and creditors, and roughly five billion dollars of Venezuelan drawing rights at the Fund came back into play, with the Bretton Woods institutions re-engaging.

Then on **7 July 2026** the Treasury's sanctions office revoked the authorisation for new purchases. The licence remained nominally alive until August but was commercially inert. The flagship claim that everything was pushing the dollar was overtaken by the same department's own action inside three weeks.

HOW TO READ THIS — AND HOW NOT TO

This is not evidence that the dollar is failing. It is evidence of what Washington believes is fragile enough to spend capital defending: sanctions relief to an adversary, an executive order shielding a foreign state's revenue, and the Fund and the Bank brought back to the table, all justified publicly as currency reinforcement. That is an admission of priority. Meanwhile the actual position is stronger than the rhetoric implies — the dollar holds about 56.8 percent of allocated reserves against the renminbi's 1.95 percent. China's own clearing system moved roughly twenty-five trillion dollars equivalent in 2025, growing fast from a small base and largely within Asia. Both facts are true and neither is a collapse.

One number is worth holding onto. Central banks bought **1,136 tonnes of gold in 2022**, the highest annual figure on record going back to 1950, against an average of 473 tonnes across the preceding decade, and repeated above a thousand tonnes in 2023 and 2024. Reserve managers do not move like that for yield.

07 — Who is telling you this

The institutional audit, applied both ways

If Chinese state statistics warrant a disclosure line, so does every institution on the other side. Here is the same treatment applied without exemption.

INSTITUTION	FUNDING AND GOVERNANCE	POSITION TO DISCLOSE
Rhodium Group	Commercial consultancy. Founder previously at the White House National Economic Council and National Security Council. Clients are firms, investors and governments operating in China.	Self-described decade-long critic of Chinese data credibility. Entangled with CSIS through its founder's affiliation, so the two are not independent corroboration.
CSIS	Third among US think tanks for Pentagon-contractor funding and ninth for foreign-government funding over 2019–24, across sixteen governments including Taiwan, Japan and Australia. President is a former US Deputy Secretary of Defense.	Taiwan funding a think tank cited on China is the single most relevant disclosure in this file. It does not move physical quantities; it bears on framing.
ASPI	Wholly owned Australian Commonwealth company. Defence department core funding was 37.5 percent of revenue in 2020–21, plus a separate US-office grant; the US State Department funds specific projects.	Overwhelmingly government-funded. Security outputs weighted accordingly.
Quincy Institute	Founded with roughly half a million dollars each from the Charles Koch Foundation and George Soros's Open Society.	Source of the funding tracker used above, and disclosed here for exactly that reason. Anti-interventionist orientation.
IMF and World Bank	The United States is the largest shareholder with an effective veto over major decisions.	Relevant to purchasing-power comparisons and forecasts, which are Tier 3 regardless.
China NBS and Customs	A deputy-ministerial department directly under the State Council. Not independent.	Documented provincial falsification admitted by three jurisdictions in 2017–18. Youth unemployment suspended in August 2023 at a record 21.3 percent and resumed under a new method. Also moved toward OECD housing practice in 2024. Both facts stand.

INSTITUTION	FUNDING AND GOVERNANCE	POSITION TO DISCLOSE
Chinese media	Caixin is the most independent and investigative; Yicai is state-affiliated through Shanghai Media Group; Global Times is a party organ.	Ranked in that order. None fully independent. The same is true, in a different key, of outlets funded by defence contractors.

Track record deserves the same symmetry. The Western literature predicting Chinese collapse has been wrong for a quarter century — the best-known book in the genre gave it five years, in 2001. The convergence thesis, that growth would force political liberalisation, also failed. And the Fund has persistently under-forecast China's current account surplus. Against that, the Chinese apparatus has admitted provincial fraud and suspended a series when it turned embarrassing. Neither side has earned deference. That is the argument for the physical ledger.

08 — Falsifiers

What would change my assessment

F-1

Chinese household consumption confirmed structurally above 45 percent of GDP after an imputed-rent correction. That would resolve the strongest structural argument against this thesis in China's favour, and I would need to revise the rebalancing risk downward.

F-2

The renminbi share of allocated reserves breaking five percent, or China's clearing system displacing material dollar clearing outside Asia. Either would move this from a story about measurement to a story about succession.

F-3

BIS data showing US total debt diverging sharply below China's. Concession two would reverse and the standard framing would earn its keep.

F-4

Chinese electricity generation, steel output or robot installation share stalling or reversing. The physical ledger is the spine of this paper; if it bends, the paper fails.

F-5

Evidence that the American FIRE share reflects capital formation rather than intermediation of intermediation. That would defeat the composition argument at its root, and it is the strongest available line of attack.

> *The Soviet Union produced enormous tonnage of things nobody wanted. Physical output is not automatically the better measure. It is only the one nobody can revise.*

That caveat is the honest limit of this argument. The claim here is incommensurability, not Chinese superiority — that two differently-constructed units are being compared as though they were the same, by the party that defines one of them and is publicly spending capital to defend it. Whether tonnage or value-added is the better guide to national power depends entirely on what you think the next twenty years will demand. But you cannot answer that question with a number that is eight percent rent nobody pays.

09 — Sources and limitations

Where these numbers come from

LIMITATIONS — READ BEFORE CITING

Composition shares from national accounts are Tier 2: single-agency counts without independent mirrors, and the US and Chinese figures are not perfectly like-for-like at sector boundaries. Purchasing-power comparisons are Tier 3 model outputs resting on disputed price surveys and are not used to support any conclusion here. Money velocity appears once, as context, and is a residual identity rather than a verdict; low velocity is consistent with high money demand. Three figures were not re-verified against primary sources in this pass and are marked accordingly in my working file: the shipbuilding tonnage share, the renminbi share of payment traffic as distinct from reserves, and the specific involution and producer-price status. Anyone citing those three should confirm them first.

Energy Institute — Statistical Review of World Energy 2025. Chinese generation 10,086.9 TWh in 2024, 32.3% of world total; US 4,635 TWh.

IFR — World Robotics 2025, Frankfurt, 25 September 2025. China 295,000 of 542,076 global installations in 2024; operational stock 2,027,000 against roughly 393,700 in the US; domestic makers 57% of the Chinese market.

BEA — US industry accounts and Katz, Working Paper 2017-7, on imputed owner-occupied housing services at approximately 8% of GDP. Net international investment position −$27.54tn at end-2025.

China NBS — 2023 GDP revised to ¥129.4272tn, up ¥3.369tn or 2.7%; housing-services method ¥1.3433tn, fifth economic census ¥2.0257tn. Manufacturing ¥34.67tn in 2025.

BIS — Total non-financial sector debt to GDP, consistent basis: China approximately 271–285%, United States approximately 255%, Japan approximately 394%.

IMF COFER — Q4 2025: US dollar 56.77% of allocated reserves, renminbi 1.95%.

World Gold Council — Central bank purchases 1,136t in 2022, highest on record to 1950, against a 2010–21 average of 473t per year.

World Steel Association — Chinese crude steel above 50% of world output every year since 2018, above 1bn tonnes annually since 2020.

Upply / China Ministry of Transport — Container throughput 2024. Shanghai 51.5mn TEU; seven of the ten largest ports Chinese.

Qiushi — Financial sector value added above 8% of GDP, described as nearly on a par with US and UK levels.

US Treasury / OFAC / CNBC — General licence permitting dollar-denominated Iranian crude payment issued late June 2026, expiry 21 August 2026, authorisation for new purchases revoked 7 July 2026; Treasury Secretary interview 24 June 2026 on Iranian and Venezuelan dollar invoicing and reserve-currency dominance.

CFR / BIS / Quincy Institute — Petrodollars: Myth and Reality, 14 April 2026, on oil invoicing versus dollar liquidity; foreign-exchange swap volumes above $100tn outstanding; Think Tank Funding Tracker 2019–24 cumulative funding figures.