Global Economics Comment: A Moderate Boost to DM Inflation from AI Demand

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- Global central bankers are increasingly citing the AI buildout as an inflation driver, with comments focused on inflationary risks from supply bottlenecks and rising import prices, as well as a potential timing mismatch between near-term domestic demand pressures and more lagged and uncertain productivity gains. In this *Global Economics Comment*, we refresh our global model (extending our US team's recent analysis of US inflation pressures stemming from AI) to assess the size of AI-related inflation risks.
- Direct inflation pressures from the AI buildout are currently limited in most economies (around 0.1pp) because categories directly exposed to memory prices receive smaller weights outside of US core PCE (where memory is adding 19bp). Inflation in non-US DMs should rise as cost pressures pass through to consumer electronic prices, especially since these receive larger weights outside of the US. Combined, we estimate that price pressures directly related to AI will boost year-over-year core inflation by around 19bp in 2027Q1 in non-US DMs, below the peak boost for US core PCE (50bp) but close to the peak for US core CPI (20bp).
- Indirect pressures via higher economic activity appear limited. Our estimates point to a moderate 0.3% boost to GDP in DMs on average through end-2026, with larger effects in Australia (0.6%) and the smallest effects in the UK (0.1%) and the Euro Area (+0.2%). These patterns suggest limited inflation boosts of less than 0.1pp, mostly because production of data center inputs is highly skewed toward Asian exporters.
- Our estimates point to an average boost to year-over-year core inflation of 25bp through 2027Q1 in non-US DMs (and up to a 33bp uplift compared to long-run trends), with larger effects on US core PCE (0.6pp) and in Japan (0.3pp) and smaller effects in the UK (0.2pp). This is a meaningful boost, but one that we expect will fade through 2027 as memory price pressures diminish.



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A Moderate Boost to DM Inflation from AI Demand

Global central bankers are increasingly citing the AI buildout as an inflation driver. Comments have generally focused on the risks from supply bottlenecks and higher import prices, as well as the potential timing mismatch between near-term domestic demand pressures and more lagged and uncertain productivity gains (Exhibit 1). In this *Global Economics Comment*, we refresh our global model (extending our US team's recent analysis of US inflation pressures stemming from AI) to estimate the inflation impulses from AI investment in DM economies.

Exhibit 1: Global Central Bankers Are Increasingly Citing AI as a Hawkish Risk to the Outlook

Central Bank	Date	Speaker / publication	Quote
Fed	29-Sep	Williams	"…the risk to achieving price stability has increased. In particular, the inflationary impact of thr AI-related demand shock is increasingly salient."
ECB	06-Mar	Schnabel	"In the short run AI is more likely to be inflationary than disinflationary. It requires large investments in energy-intensive data centres and may create new bottlenecks in specialised chips and skilled labour."
BoJ	05-Oct	Uchida	"First, [AI] is a big positive demand shock, which has put upward pressure on the economy and prices. Second, it could affect the supply side, perhaps positively by raising productivity and enhancing capital stock accumulations, which might in turn affect r-star (r*)" "Tentatively, it appears that the demand side has come first and that it has been making financial conditions more accommodative on balance..."
BoE	17-Sep	Pill	"Broader global threats (stemming from adverse weather, fiscal dynamics and AI build-out) [are] magnifying the obvious energy price risks to the inflation outlook"
BoC	15-Jul	MPR	"Prices [for computer equipment] are being pushed higher by strong global demand tied to the boom in artificial intelligence." "Rising US investment in AI is anticipated to boost demand for Canadian raw materials, metal products and electrical equipment."
RBA	22-Sep	Bullock	"There's lots of evidence that [AI is] influencing the demand side of the economy. So we've got this awkward sequencing event at the moment where, in Australia at least, we are in a situation of excess demand, and the AI boom is adding to that demand ahead of any potential supply impacts that it might have going forward."
RBNZ	18-Feb	MPS	"Strong investment in AI technology supported exports from our trading partners in Asia in 2025 and is expected to remain a growth driver through 2026."
Riksbank	24-Sep	MPR	"The upturn in investment can be related to major investments in defence and AI technology, which have also been highlighted by the companies responding to the Riksbank's most recent Business Survey"
Norges Bank	24-Sep	MPR	"Data centre buildout, technology investment and capacity expansion in tourism are boosting investment"
SNB	21-Aug	Tschudin	"Shortages can occur, for example with chips, causing prices to rise. In the short or medium term, therefore, upward inflationary pressure can also arise."

Source: Federal Reserve, European Central Bank, Bank of Japan, Bank of England, Bank of Canada, Reserve Bank of Australia, Reserve Bank of New Zealand, Sveriges Riksbank, Norges Bank, Swiss National Bank, Goldman Sachs Global Investment Research

We continue to consider three main channels through which the AI capex cycle is directly boosting inflation: the direct boost to consumer prices from higher memory prices, spillovers from higher memory prices to consumer electronics, and the increase in electricity prices associated with increased data center power demand.[1]

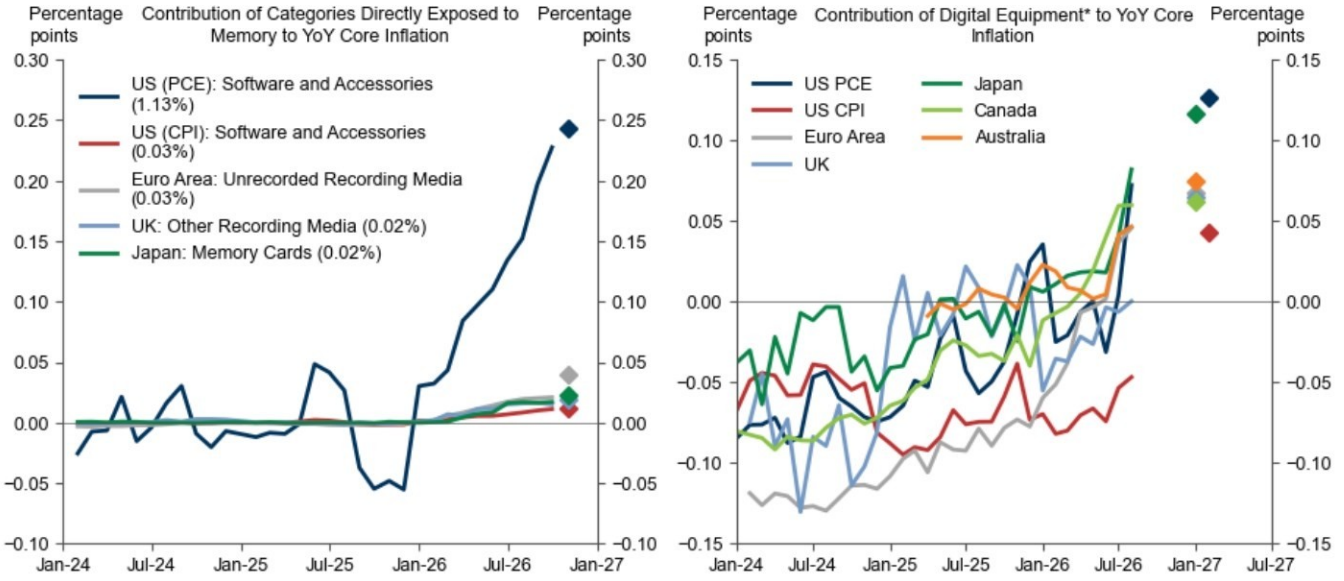
First, increased demand for memory from data centers has led to outsized increases in memory prices. This is directly boosting consumer prices for memory cards, but in most countries the effect of these increases remains minimal (2-3bp on year-over-year core inflation) due to the tiny weight of memory cards in overall inflation baskets. The exception to this is US PCE inflation, where the weight of the software and accessories

[1] Our US economics team recently highlighted that the effect of other AI-related cost spillovers (including via industrial metals prices and wage growth for construction workers) appears limited, while higher semiconductor prices should have little readthrough to consumer prices given that the chips used to train AI models are very different to those used in consumption goods.

category is overstated (even after recent methodology changes) and is boosting inflation by 23bp (GS forecast for September; Exhibit 2, left). We expect only modest further upside to memory-exposed categories, reflecting our equity strategists' view that memory prices are near their peak.

Second (and the biggest change relative to our last update), higher memory prices are starting to spill into consumer prices for electronic goods such as phones, computers and video game consoles, which have much higher weights in global inflation baskets. These consumer electronics categories are currently contributing less than 0.1pp to year-over-year core inflation across DMs (Exhibit 2, right), with the largest boosts in Japan and US PCE. Based on price forecasts from our equity strategists, our US economics team estimates that spillovers from higher memory prices to consumer electronics will ultimately raise core PCE inflation by 13bp in 2027Q1. Mapping these price forecasts to other countries by rescaling the contributions according to their weight, we estimate that digital equipment price increases will ultimately add 10bp on average to core inflation across DMs (and 18bp on average relative to long-run trends, with the largest uplifts in US PCE and Japan).

Exhibit 2: Higher Memory Prices Are Starting to Spill into Consumer Electronics More Broadly



Note: Numbers in parentheses indicate headline basket weights. Diamonds indicate GS forecasts. *Phones, PCs and video games

Source: Goldman Sachs Global Investment Research

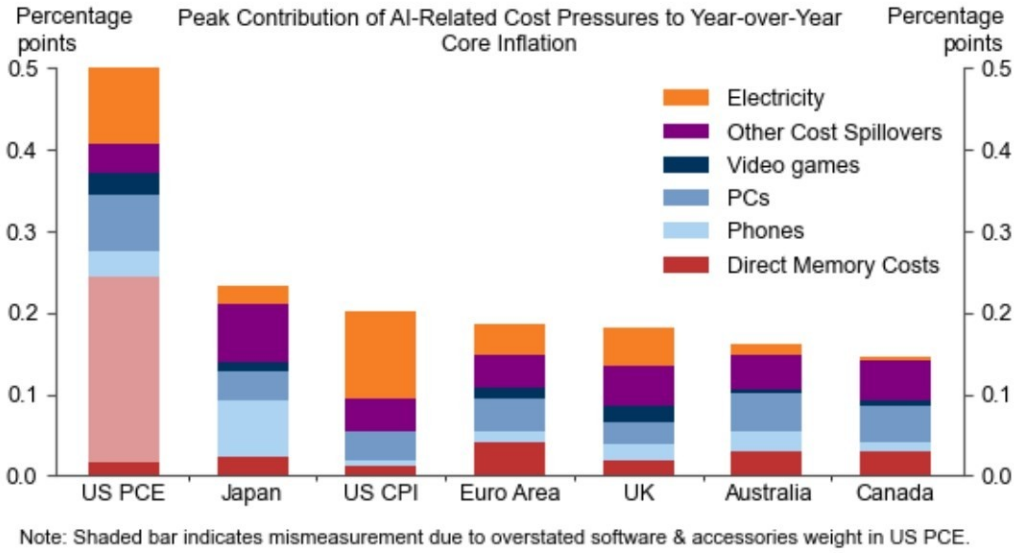
Lastly, increased power demand from data centers is also putting upward pressure on inflation in the US (where our US economics team estimates that higher power prices are boosting core PCE inflation by 0.1-0.2pp) but is having a more minimal impact elsewhere (less than 5bp this year) given a smaller ramp-up in data center power demand outside of the US. That said, we expect a somewhat larger boost to power prices in Australia in 2027 and beyond as data center capacity additions accelerate.

Combining these three channels, we estimate that price pressures associated with the AI data center buildout are currently boosting core inflation by 44bp in US core PCE (GS forecast for September, Exhibit 2, left), of which 20bp reflects the mismeasurement of software and accessories inflation. Core CPI inflation in the US, which is unaffected by this source of mismeasurement, is currently being boosted by 13pp. We expect these

boosts to peak at 50pp in 2026Q4 and 19pp in 2027Q1, respectively.

Elsewhere, the rise in inflation today is generally more muted given less exposure to the earlier rise in memory prices. But based on our updated consumer electronic price projections, we now anticipate a meaningful peak inflation uplift in other countries of around 25bp for core CPI inflation on average in 2027Q1. This increase is mostly driven by expected consumer electronics price increases which should mostly materialize in the next few months.

Exhibit 3: Extending our US AI-Inflation Estimates to Other Countries, We Estimate that AI-Related Inflation Pressures Will Raise Core Inflation by a Peak of 15-50bp

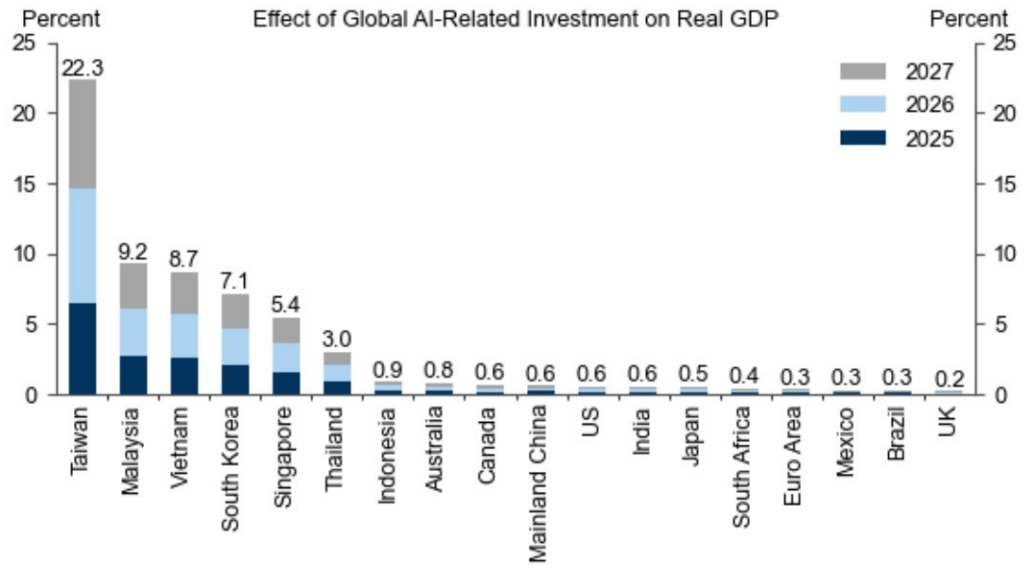


Source: Goldman Sachs Global Investment Research

While direct pressures look a bit more concerning, indirect pressures from broader demand increases due to the AI buildout still appear small. To demonstrate, in Exhibit 4, we combine our respective country teams' estimates of the GDP boost from global AI capex (where available) with estimates based on the world input-output tables that trace out the global growth effects of an increase in demand for AI-related goods (based on our European team's methodology).

We estimate a 0.5% cumulative uplift to the level of GDP by end-2027 in DMs, with 0.3% realized by the end of this year. Across DMs, our estimates point to larger effects in Australia (0.8% by end-2027), Canada (0.6%), and the US (0.6%), but smaller effects in Europe (0.3%) and the UK (0.2%). Given that the GDP uplifts are only moderate—mostly because production of data center inputs is highly skewed toward Asian exporters—and passthrough from output gaps to inflation is muted, these patterns suggest limited inflation boosts of less than 0.1pp.

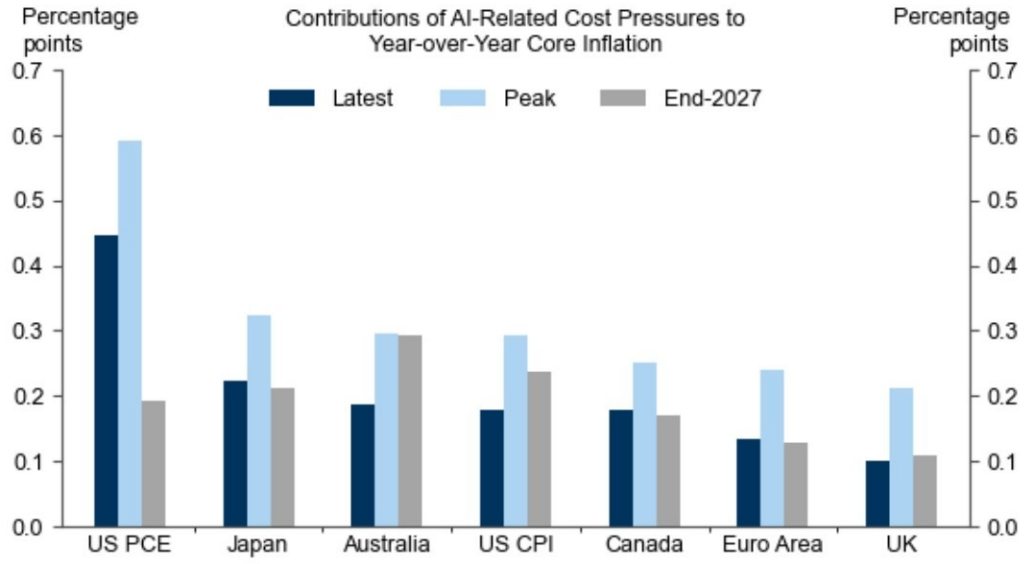
Exhibit 4: GDP Boosts Are Moderate Outside of Asian Exporters



Source: Goldman Sachs Global Investment Research

Overall, our estimates point to a moderate 0.2-0.3pp boost to core inflation through 2027Q1 from AI impacts in non-US DMs, suggesting some of the AI-related inflation concerns expressed by global policymakers are warranted. That said, we expect this impulse to fade sharply on a sequential basis in most DMs in 2027H2 as price pressures from AI electronic inputs diminish.

Exhibit 5: Combined, Our Estimates Suggest the Near-Term Price Pressures from AI Are Meaningful, but These Should Start to Fade in 2027H2



Source: Goldman Sachs Global Investment Research

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