ALTO HSR CITIZEN RESEARCH INITIATIVE

Two Point Two Trillion

ALTO's headline economic claim is true of the Canada that existed in 2019. It is presented to the public as today's.

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TWO STUDIES, TWO SUMMARIES

ALTO has commissioned two economic studies and published both. **Aviseo Consulting** produced a computable general equilibrium model of the effect of high-speed rail on the Canadian economy. **CPCS**, in association with HDR, produced a study of its effect on tourism. Both reports are methodologically careful. Both state their limitations plainly. Both are freely downloadable from ALTO's website.

This brief is not a critique of those studies. It concerns the difference between what they state and what ALTO's public materials state on their behalf — and what a travel trade article, published July 20, 2026, repeated to a wide audience without opening either report.

CRITICAL FINDING

The 1.1 per cent figure is 1.1 per cent of Canada's **2019** GDP. The Aviseo report states this on page 13, in those terms. ALTO's public pages omit the year and describe the dollar figure as being in today's value. Canada's economy is now approximately a third larger than in 2019: the same claim expressed in current terms is either **$36.5 billion** or **0.74 per cent**, not $24.5 billion and 1.1 per cent.

Approximately 86 per cent of the modelled benefit rests on a single parameter. Of the $24.4 billion total, **$21.0 billion** derives from an assumed **3 per cent** productivity uplift applied to the census metropolitan areas of Toronto, Montréal, Ottawa and Québec City. At 2 per cent the total is $13.8 billion; at 5 per cent, $34.5 billion. The report's full range is **$14.8 billion to $41.0 billion**. ALTO publishes a single central figure and no range.

The two studies are inconsistent with one another on tourism. Aviseo counts international visitors only, treating domestic tourism as largely substitution with limited net national effect. CPCS builds its headline on in-corridor domestic travel. The two employ methods that cannot be combined. **Neither ALTO summary acknowledges the existence of the other study.**

In the CPCS base case, **Peterborough and Trois-Rivières receive zero** additional visitor spending and zero additional GDP. The blog post announcing that study is titled "How High-Speed Rail Will Boost Tourism from Big Cities to Small Towns."

THE ARITHMETIC

1.1 per cent of which year?

ALTO's benefits page states the claim in a single line: a **"1.1% increase in Canada's GDP ($24.5 billion in today's value)"**. Presented as equivalents, the two figures define the size of the economy they describe.

$24.4B	1.1%	$2.22T
the benefit the study reports	the share of GDP it represents	the economy in which both hold
Aviseo, Table 1	Aviseo, page 13	$24.4B ÷ 0.011

Statistics Canada records gross domestic product at market prices, seasonally adjusted at annual rates, at **$3,321,588 million** for the first quarter of 2026 — approximately **$3.32 trillion**. The implied base is roughly **$1.1 trillion** below it, and only about two thirds of current national output.

Two notes on these figures. No one has claimed that Canada's economy is $2.22 trillion. That figure is the Initiative's own division of the two numbers ALTO publishes together, and it is shown here because it is what those two numbers imply about each other. And the benefit appears in this brief as both $24.4 billion and $24.5 billion: the first is the figure in Aviseo's Table 1, the second the rounded form ALTO uses on its benefits page. They are the same estimate.

The study explains the discrepancy, and conceals nothing. The Aviseo model is calibrated to Canada's **2019** social accounting matrix, 2019 being the most recent reliable pre-pandemic reference year. Page 13 then reports the result with the qualifier intact: a mean annual real GDP gain of about $24.4 billion, equivalent to roughly **1.1 per cent of Canada's 2019 GDP**.

That is the finding. **The study says 2019. ALTO's public materials say today's value.**

> A SECOND PROBLEM WITH "TODAY'S VALUE"
>
> The Aviseo model is *static*. It generates no year-by-year path; it compares two equilibria, asking what 2019 would have looked like had the railway been operating. The report says so directly. There is therefore **no discounting and no present-value calculation anywhere in the study**. The reported impacts are annual differences, not a capitalised total. "In today's value" describes an operation the study never performed.

WHERE THE NUMBER COMES FROM

Eighty-six per cent of the claim is one parameter

The model aggregates three channels. The report reports each separately, which allows the composition of the headline to be examined directly.

CHANNEL	CONTRIBUTION	SHARE
Productivity — agglomeration effects from improved market access	**$21.0B**	**86%**
Labour supply — commuting time savings and induced commuting	**$2.7B**	**11%**
Tourism — additional international visitor spending	**$0.8B**	**3%**
Total (baseline scenario)	**$24.4B**	**100%**

The productivity channel is implemented as a parameter, denoted Ω in the report, representing the assumed productivity uplift in the affected geography. Aviseo selects **Ω = 0.03** for its baseline from a literature range of 0.01 to 0.06, and applies it to the census metropolitan areas of **Toronto, Montréal, Ottawa and Québec City**, using each CMA as a practical approximation of the 30 kilometre station radius the literature supports.

Those four metropolitan economies account for roughly a third of Canadian GDP. Three per cent of a third is approximately one per cent. **The headline figure is close to arithmetic from the assumption** rather than an emergent property of the modelling.

SENSITIVITY OF THE HEADLINE TO THE PARAMETER

At **Ω = 0.02**, total real GDP impact is approximately **$13.8 billion**. At **Ω = 0.03**, **$24.4 billion**. At **Ω = 0.05**, **$34.5 billion**. Across all scenarios and closures tested, the reported range is **$14.8 billion to $41.0 billion**. ALTO publishes one figure from the centre of that range.

THE GEOGRAPHY OF THE ASSUMED BENEFIT

The productivity uplift — 86 per cent of the total claim — is applied to four metropolitan areas. **Peterborough, Trois-Rivières and Laval receive none of it**. By the construction of the model, the dominant economic benefit of the project accrues to the four largest cities on the corridor and to nowhere else.

STUDY VERSUS SUMMARY

What the reports state, and what the summaries state

Both reports are candid about their limitations. Neither summary reproduces them. This is the pattern at the centre of this brief.

WHAT THE REPORT STATES	WHAT ALTO'S SUMMARY STATES
Aviseo: the gain is roughly 1.1 per cent of Canada's **2019** GDP.	ALTO's blog: the analysis concludes ALTO will permanently uplift Canada's GDP by 1.1 per cent. No year given. ALTO's benefits page: **$24.5 billion in today's value**.
NOT CARRIED: THE BASE YEAR	
Aviseo: results range from **$14.8B to $41.0B** across the assumptions tested.	A single central figure. The range appears in neither the blog post nor any public ALTO page.
NOT CARRIED: THE RANGE	
Aviseo: the study **deliberately excludes construction and operating costs**, addressing only long-run structural effects.	Presented as the economic case for proceeding. A study that excludes costs cannot establish whether a project is worth its price, and does not claim to.
NOT CARRIED: THE SCOPE LIMIT	
CPCS: the scenarios are illustrative and order-of-magnitude, and **"should not be interpreted as forecasts."**	ALTO's blog: CPCS **developed forecasts**, and the report provides **tangible projections** and **real-world, objective results**.
CONTRADICTED: THE REPORT'S OWN CAUTION	
CPCS: three scenarios — **$177M, $1.0B and $3.9B** in added GDP, according to the degree of tourism policy coordination.	The medium figure alone. The low scenario, roughly six times smaller, is not mentioned.
NOT CARRIED: THE LOW CASE	
Both reports were commissioned and paid for by ALTO. Aviseo's cover states the work was undertaken on ALTO's behalf; CPCS notes the opinions are the authors' own.	Both blog posts describe the consultancies as **independent** in the same passage that states ALTO engaged them. Aviseo's cover records that the work was undertaken on ALTO's behalf.
THE WORD "INDEPENDENT"	

THE DISTINCTION THIS BRIEF DRAWS

Neither consultancy is at fault. Aviseo tested six macro closures and two labour-market regimes, ran approximately one hundred simulations, reported ranges throughout, and disclosed its base year. CPCS labelled its scenarios illustrative and cautioned explicitly against reading them as forecasts. **The reports are the careful part of this record. The summaries are where the qualifications disappear.**

TWO STUDIES, ONE QUESTION

The reports disagree with each other on tourism

Both studies estimate the additional economic activity attributable to tourism. They reach comparable figures by opposite routes, and the two are neither additive nor directly comparable.

AVISEO — $0.8 BILLION	CPCS — $1.0 BILLION
Counts **international visitors only**. The report states that domestic tourism would largely reflect substitution from existing household expenditure, with limited net effect at the macroeconomic level. Uses a general equilibrium framework, which **nets out** activity displaced from elsewhere in the economy.	Its medium scenario is driven predominantly by **in-corridor domestic travel** — precisely the category Aviseo sets aside. Uses Statistics Canada input-output multipliers including **induced effects**, which aggregate gross activity without netting displacement. This produces systematically larger figures.
RESULT: TWO FIGURES THAT CANNOT BE COMBINED	

A third figure circulates alongside them. ALTO’s FAQ page advertises **$800 million a year in tourism revenue**. This corresponds to Aviseo’s contribution-to-GDP figure, which is a value-added measure rather than revenue, and matches no revenue figure in either report.

ALTO’s public materials therefore carry a tourism benefit variously expressed as $0.8 billion of national output, $1.0 billion of national output, and $800 million of revenue — drawn from two studies using incompatible methods, one of which discounts the category the other depends upon. **Neither blog post acknowledges the other study.**

THE SMALL TOWNS

In the base case, two cities receive nothing

The CPCS study models three futures. The railway is identical in all three. What varies is the degree of complementary tourism policy: last-mile transit, regional shuttles, coordinated visitor information, destination marketing. The low coordination scenario is the case in which the railway is built and nothing else changes.

CITY	LOW COORDINATION	HIGH COORDINATION
Toronto	**$37M**	**up to $1,500M**
Québec City	**$50M**	**up to $500M**
Montréal (incl. Laval)	**$44M**	**up to $900M**
Ottawa-Gatineau	**$21M**	**up to $560M**
Trois-Rivières	**$0**	**up to $25M**
Peterborough	**$0**	**up to $35M**

Additional annual tourism spending, CPCS Table 13. The GDP table records the same result: Peterborough unchanged at $475 million, Trois-Rivières unchanged at $318 million.

Even under full corridor-wide policy coordination, Peterborough reaches up to $35 million against Toronto's $1.5 billion — a ratio of approximately **43 to 1**.

The blog post announcing this study is titled **"How High-Speed Rail Will Boost Tourism from Big Cities to Small Towns."**

The Initiative examines this study in full elsewhere — its scope, the conditions attached to its scenarios, the rural corridor regions left outside its analytical frame, and the cost side it does not count — in *Benefits for Stations*, *Costs for the Corridor* (citizenresearch.ca/post-consultation/tourism-study).

THE MISSING SIDE

A study that cannot establish whether the project is worth building

The Aviseo report states in its introduction that it **deliberately excludes construction and operating costs**, in order to concentrate on long-run structural effects. That is a legitimate scope decision. It has a consequence.

A benefit estimate with no cost beside it cannot answer the only question that matters. The report does not claim to answer it. ALTO's summary presents it as though it does, and the trade coverage went further, running the entire economic case without a single cost figure of any kind.

The cost side is not unavailable; it is simply elsewhere. ALTO's published figure is **$60 to $90 billion** — a range its chief executive has characterised as a working assumption rather than an estimate, with reliable figures not expected until 2027 or 2028, after alignment selection. The Initiative's analysis of the full ledger places ALTO's central benefit-cost ratio at approximately **0.11**, against the 1.0 that marks a project paying its way.

> THE SHAPE OF THE PUBLISHED RECORD
>
> The benefit is modelled in detail by two consultancies, published to two significant figures, and repeated by every outlet covering the project. The cost is a range spanning **$30 billion**, disclosed by the proponent as an assumption, and resolvable only after the decision it is meant to inform has been taken. **The asymmetry is the finding, not the individual numbers.**

This is the structural signature Bent Flyvbjerg documents across the megaproject literature: benefits foregrounded, monetised and circulated early; costs deferred, ranged and resolved after commitment.

THE CHAIN

Six weeks, and the reports were not cited

The article prompting this brief promised readers what others were missing about ALTO's economics, and led on tourism. The following had already been published.

2019	The reference year of the economy the Aviseo model is calibrated to.
2024	Aviseo runs the model. ALTO supplies its demand forecasts in May and June.
June 8, 2026	ALTO publishes **"How High-Speed Rail Will Boost Tourism from Big Cities to Small Towns,"** with the full CPCS report attached for download.
June 2026	The Aviseo report is uploaded to ALTO's website.
July 13, 2026	ALTO publishes **"How Alto Will Reshape Canada's Economy,"** with the full Aviseo report attached. It states the 1.1 per cent without the base year, the range, or the cost exclusion.

July 20, 2026	A travel trade site publishes a long article on ALTO's economics and tourism under a headline promising **what others are missing**. Its two themes are the two blog posts. It cites **neither report**, describes the analysis as independent, and contains no cost figure.

Seven days after one blog post and six weeks after the other. The tourism angle offered as the overlooked discovery had been the subject of a dedicated ALTO blog post and a 42-page commissioned report, both freely available, for a month and a half. **The answer was one click from the two blog posts the article's themes are drawn from.**

SUMMARY · JULY 2026

Summary ledger

WRONG YEAR	**“$24.5 billion in today’s value.”** The study states 1.1 per cent of Canada’s 2019 GDP. In current terms the claim is either $36.5 billion or 0.74 per cent.
WRONG KIND	**“Today’s value” describes a calculation never performed.** The model is static and contains no discounting. Its results are annual differences, not a capitalised total.
NOT CARRIED	**The ranges.** Aviseo reports $14.8B to $41.0B; CPCS reports $177M, $1.0B and $3.9B. ALTO publishes one central figure from each.
NOT CARRIED	**The scope limit.** Aviseo excludes costs by design, and is presented as the economic case for a project whose price it never considered.
CONTRADICTED	**“Should not be interpreted as forecasts.”** CPCS’s own words. ALTO’s summary calls the same scenarios forecasts, tangible projections and objective results.
AT ODDS	**Benefits to smaller communities.** Under the low coordination scenario, Peterborough and Trois-Rivières receive $0. The announcing blog post is titled “from Big Cities to Small Towns.”
UNRECONCILED	**Two tourism figures.** $0.8B counting international visitors and $1.0B counting domestic travel, by incompatible methods, plus $800M of “revenue” on the FAQ matching neither.
AS STATED	**“Independent.”** Both consultancies were engaged and paid by ALTO. Both blog posts state this in the same passage that describes the firms as independent, so a reader who takes the word to mean “not commissioned by the proponent” is reading it in a sense the passage itself rules out.
FRAGILE	**Eighty-six per cent of the claim rests on one parameter** — a 3 per cent productivity uplift applied to four metropolitan economies. At 2 per cent the total is $13.8B; at 5 per cent, $34.5B.
SOUND	**The studies themselves.** Both are careful, both state their limits, both are published in full. The Initiative’s argument is with the summaries, not the analysis.

What this brief does and does not argue

The Initiative is ***not*** disputing that high-speed rail can generate wider economic benefits, and is ***not*** criticising the consultancies that produced this work.

The argument is that ALTO commissioned two careful studies and then published summaries that removed the base year, the ranges, the scope limitations and the warnings — and that the resulting figures now circulate as settled fact. On the arithmetic the position is narrow and checkable: **1.1 per cent and $24.5 billion cannot both describe the Canada of today, and the study states which year they describe.**

ALTO could correct this in a sentence. Adding the words **“of 2019 GDP”** to its benefits page would make the claim accurate.

Status of the figures. Every figure attributed to Aviseo, CPCS, ALTO or Statistics Canada is quoted from the published source listed below and can be checked there. Every other figure is a calculation by the Initiative from those published inputs: the $2.22 trillion implied economy, the $36.5 billion and 0.74 per cent restatements in current terms, the observation that three per cent of roughly a third of national output is approximately one per cent, the 43-to-1 Toronto-to-Peterborough ratio, and the benefit-cost ratio of approximately 0.11, which comes from the Initiative’s own financial analysis and not from either commissioned study. Where a study or a summary does not state something, this brief says so rather than inferring it, and makes no claim about why any particular qualification was or was not reproduced.

SOURCES

Primary documents

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2. ALTO, "How Alto Will Reshape Canada's Economy," blog post, July 13, 2026. States the 1.1 per cent without base year or range and describes the commissioned report as independent. Links the Aviseo report. altotrain.ca/en/blog/how-alto-will-reshape-canadas-economy
3. CPCS, in association with HDR, *Tourism in the Alto Corridor: Current Conditions and Potential Impacts*, June 2026. Prepared for ALTO. Source of the three coordination scenarios, the per-city spending and GDP tables, the statement that the scenarios should not be interpreted as forecasts, and the business-spending declines under low coordination. altotrain.ca/sites/default/files/2026-06/202606-alto-tourism-impacts_en.pdf
4. ALTO, "How High-Speed Rail Will Boost Tourism from Big Cities to Small Towns," blog post, June 8, 2026. Reports the medium scenario only and describes the scenarios as forecasts and tangible projections. Links the CPCS report. altotrain.ca/en/blog/how-high-speed-rail-will-boost-tourism-big-cities-small-towns
5. ALTO, "Discover Alto's Many Benefits," project benefits page. Source of the "$24.5 billion in today's value" phrasing and the employment figures. altotrain.ca/en/about-alto/projects-many-benefits
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9. ALTO HSR Citizen Research Initiative, *ALTO Financial Analysis*. Source of the benefit-cost ratio of approximately 0.11, the cost-per-kilometre model, and the achievable ridership frontier of 5 to 12 million annual trips against ALTO's 24 million target. citizenresearch.ca/economics/
10. ALTO HSR Citizen Research Initiative, *Tourism Study* brief, June 2026. Examines the scope of the CPCS study, including the exclusion of rural corridor regions. citizenresearch.ca/post-consultation/tourism-study/
11. Bent Flyvbjerg, on optimism bias and reference-class forecasting in the appraisal of large infrastructure projects.