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PROPRIETARY REAL ESTATE RESEARCH

Breaking Ground: AI-Driven Analysis of How Policy Reform Can Unleash Canadian Housing Supply

In partnership:

JOHN MOLSON SCHOOL OF BUSINESS

Université Concordia University

EQUITON®

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Executive Summary

Canada's housing market is in a period of crisis, driven by a persistent imbalance between chronic undersupply and unrelenting demand. While investor returns remain strong in key markets, affordability challenges have grown, placing growing pressure on households and policy institutions as Canada's housing shortage has worsened. These issues are multi-faceted, therefore addressing them will require not only scaling up housing completions but also understanding the regulatory, demographic, and economic forces shaping the current supply and demand landscape.

This research explores the determinants of housing completions and their effects on home prices using a uniquely assembled dataset that includes municipal-level regulation indices, input price shocks, and population and demographic variables. Using robust data, traditional econometric tools and AI-powered forecasting models, we quantify how policy actions and market shifts can help realign housing supply with underlying demand.

We find that easing municipal regulation and streamlining approval processes are low-cost, high-impact levers to unlock supply, especially for single-family homes. These effects are more pronounced for low-density housing, with apartment construction proving less responsive to local zoning changes and more dependent on higher-level planning interventions. At the same time, rising construction costs driven by supply-side shocks such as global tariff volatility act as a direct brake on higher-density forms of housing.

To isolate the true impact of housing supply on prices, we employ a widely accepted instrumental variables (IV) approach, using building cost indices as instruments. We find that Canada's current pace of building, at approximately 1.75% of the housing stock per year, does not alleviate price pressures and is even likely to raise prices due to unmet demand. In our analysis, prices only begin to stabilize once annual completions exceed 3% of the existing housing stock. This finding suggests that the federal target of doubling homebuilding to roughly 3.5%, reflecting estimates by the Canada Mortgage and Housing Corporation (CMHC), while ambitious, is necessary to address affordability challenges, which will remain a generational issue for Canadians.

Building on this insight, our research then utilizes an AI-driven model to forecast home prices across four major cities under three demographic growth scenarios — high, medium, and low — and simulates increases in the existing rate of housing supply expansion by 0%, 50%, and 100%.

For the first time, data-driven models are employed to quantify the complex dynamics between demographics, input costs, housing supply, and home prices in Canada.

Research Highlights

- Across Canada, a 10% reduction in building restrictions can raise annual home completions by almost 10% of total supply. A 10% reduction in approval delays adds another 3%.
- A 10% increase in input costs — primarily materials, but also attributable to taxes, fees, and labour — can reduce housing completions by 25% to 35%, with the greatest impact on apartment-style housing.
- Under current trends, Toronto median home prices are projected to rise to $1.8M in 2032 (in today's dollars) from $1.4M in 2024. Doubling completions could moderate this growth to $1.6M, validating de-regulation as a viable approach to stabilizing housing prices in this high-demand metro.
- Without supply acceleration, Vancouver median home prices may exceed $2.8M by 2032. Only the most aggressive supply increases may stabilize prices around $2.5M.
- In other markets, such as Montréal, prices continue to rise regardless of supply scenarios, while Calgary housing price growth is more sensitive to population shifts than completions.
- Streamlining regulatory frameworks and approval processes can offer a boost to housing outcomes in major markets. At the same time, collaboration between all levels of government, developers, and the public is essential to creating a policy environment that reduces costs and supports development that meaningfully contributes to long-term affordability.

These projections validate decades of calls to action from experts in the real estate sector, from the CMHC to private developers, and ordinary Canadians, who correctly identified the importance of removing policy and bureaucratic obstacles from the housing completion process. However, these findings are not without nuance. Regulatory streamlining and ambitious supply-side targets are necessary but, alone, insufficient to alleviate Canada's housing crisis. Population policy, immigration patterns, and construction cost volatility all play interconnected roles. A coordinated, multi-faceted, long-term policy response that addresses all aspects of development — zoning reform, skilled labour bottlenecks and retirements, and input cost shocks — while scaling completions beyond 3% of existing housing stock, is essential to restoring balance in Canada's challenging housing market.

This first-of-its-kind report offers a data-driven roadmap for governments, developers, and investors aiming to align supply growth with evolving population dynamics. By integrating AI forecasts with granular policy variables, we provide an ambitious yet actionable path

forward for targeting interventions that can stabilize prices and begin to address housing affordability across Canada.

Housing Policy, Tariffs, and Supply Trends

The Canadian housing market continues to face a fundamental imbalance: demand outpaces supply, putting sustained upward pressure on prices. While this dynamic can support strong returns for real estate investors, it also signals an affordability crisis. The social, economic, and political consequences of housing unaffordability make this arguably the nation's top issue.

To better understand the supply side of the housing market, we leverage publicly available, high-frequency data to track and analyze housing trends across Canada's Census Metropolitan Areas (CMAs). We collect quarterly data from the CMHC on housing completions and the median prices of absorbed homeowner and condominium units. This information is merged with Statistics Canada's census data (collected every five years) to enrich our analysis with demographic and socio-economic variables.

Specifically, we compile data on:

- The number of dwellings and households
- Household size
- The proportion of residents with a bachelor's degree
- Family structures (e.g., couples without children)
- Median income and unemployment rate

We further enhance this dataset with annual population estimates from Statistics Canada, including counts of immigrants and non-permanent residents (non-PRs) at the CMA level.[1] To ensure comparability across time and regions, we apply the following normalization techniques:

- Housing completions are divided by the total number of dwellings
- Couples with no children are expressed as a share of total households
- Bachelor's degree holders, immigrants, and non-PRs are scaled by CMA-level population

[1] For details, please visit the Population Estimate and Components of Population Change Coverage of Statistics Canada. The estimates are reported on January 2025.

After merging all sources, our final panel dataset spans from Q1-2017 to Q1-2025. This integrated dataset provides a comprehensive, dynamic view of housing supply trends, allowing us to assess how demographic shifts, regulatory conditions, and global factors such as tariffs come together to shape Canada's housing market.

Increasing housing supply is critical to meet the excess demand. The CMHC estimates that Canada needs an additional 3.5 million new housing units by 2030 to address the country's affordability problem.[2] Policy tools and market conditions play a central role in facilitating this increase in supply. An essential area of focus is the potentially dampening impact of municipal regulation and approval delays on housing development.

The Municipal Land Use and Regulation Survey conducted by the CMHC and Statistics Canada in 2022 provides valuable data for our purpose. It produces two cross-sectional indices at the CMA level: a Regulation Index and an Approval Delay Index.[3] The Municipal Land Use Regulation Index measures the extent of local land use restrictions such as zoning rules, fees, community consultation requirements, density limits, and environmental assessments to rank municipalities based on how regulated their housing development processes are. The Approval Delay Index quantifies the time taken for municipalities to approve new development projects, which essentially captures the processing delay in permits.

These indices are normalized to 100 for Toronto, with values for other CMAs expressed relative to Toronto, where higher values indicate stricter regulations or longer approval timelines. We use these indices to pinpoint how local regulations and delays affect the pace of housing completions across Canada.

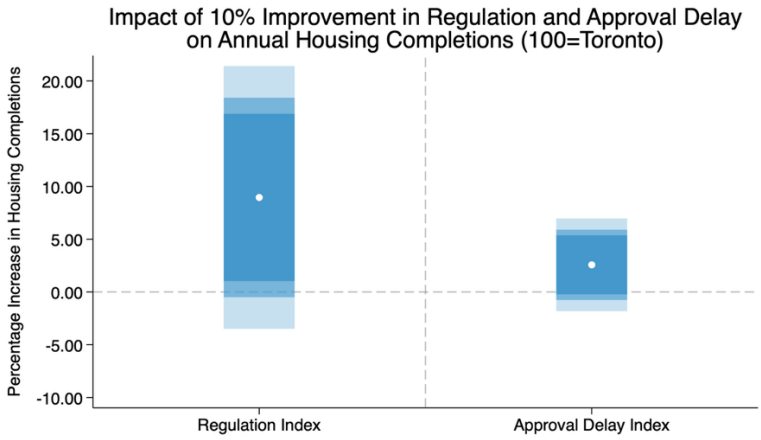
Besides government regulations and processes, broader market conditions, particularly international trade policies, can influence housing supply by affecting construction input costs. For example, U.S. tariffs have increased costs for key construction materials like steel and lumber. These price pressures may reduce the economic feasibility of new developments. To quantify this relationship, we incorporate data from the Building Construction Price Index (BCPI), which tracks changes in contractor prices for residential and commercial properties at the CMA level. Our analysis focuses on quarterly residential BCPI data from Q1-2017 to Q1-2025, including sub-indices for metal fabrications and wood, plastic, and composites.

[2] For more details, please click and read the CMHC report.
[3] For more details, please click and read the results coverage of Municipal Land Use and Regulation Survey.

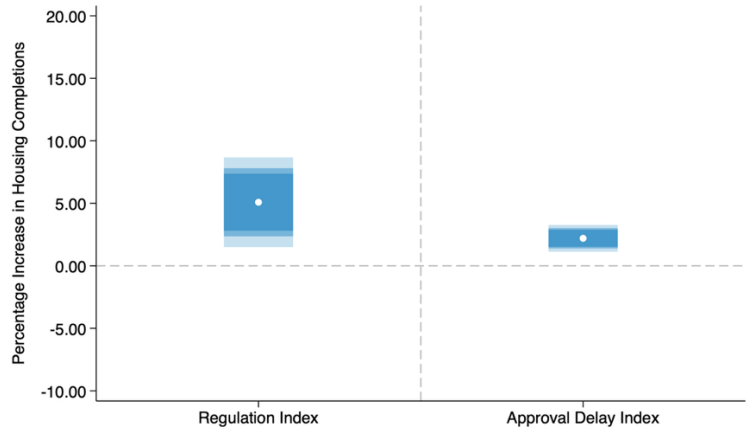
Our regression model estimates housing completions as a function of the regulation and approval delay indices, construction input prices, and key demographic and economic variables. These variables include median income, unemployment, population size, and year fixed effects to account for broader macroeconomic changes such as interest rates, inflation, and GDP. Detailed regression results and model descriptions are available in the Online Appendix.

Municipal Regulation and Approval Delays

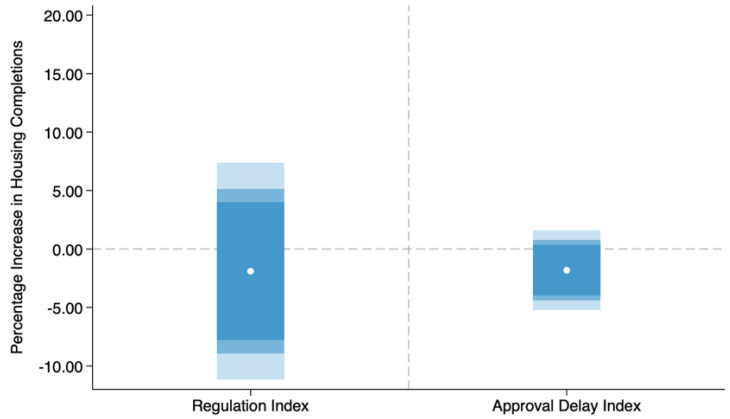
Figure 1 summarizes our key findings on municipal regulation and approval delays. In Panel A below, we show that reducing red tape and speeding up approvals has a clear and measurable impact on housing supply. Specifically, a 10% improvement in the Regulation Index (zoning rules, fees, community consultation requirements, density limits, and environmental assessments) is associated with an almost 10% increase in housing completions. Similarly, a 10% reduction in the Approval Delay Index results in a 3% increase.



Panel A. Housing Completions



Panel B. Single-Family Completions



Panel C. Apartment Completions

Figure 1: Regulation and Approval Delays and Housing Completions

Notes: The figures are based on Online Appendix Table OA-1 and OA-2.

To put this into context, these changes represent a 10% and 3% boost in housing supply, respectively, relative to the national average. This means that policy improvements in just these two areas, regulation and delay, could deliver nearly half that gain. In other words, simply streamlining municipal processes, often delayed by extensive public consultations and layers of approvals, could increase annual housing completions by 10 to 13%, even without additional spending or new programs. For policymakers, these results underline that cutting regulatory delays is a low-cost, high-impact lever to help meet Canada's housing goals.

In Panels B and C of Figure 1, we present the results separately for single-family and apartment housing completions. Our analysis shows that reducing regulatory barriers and shortening approval timelines boosts the supply of single-family homes.

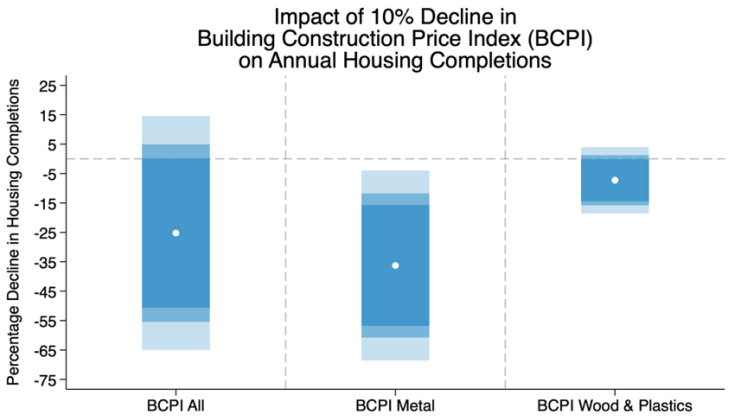
This result has meaningful implications for both policymakers and residential real estate investors. Our findings suggest that municipal land-use regulations and approval processes tend to constrain lower-density developments such as single-family homes. These projects rely on discretionary zoning decisions and are more exposed to local approval delays. In contrast, apartment developments often benefit from more centralized planning mechanisms such as pre-zoned corridors, provincial intensification mandates, or transit-oriented development designations that reduce their sensitivity to municipal regulatory barriers.

For policymakers and real estate investors, this distinction is important. It indicates that single-family development is more responsive to local regulatory reform, offering stronger upside potential in markets where municipalities are actively streamlining processes or easing zoning constraints. Shorter timelines and lower carrying costs can enhance returns on these projects. Meanwhile, increasing apartment supply requires different policy levers such as provincial-level incentives, infrastructure coordination, or financial subsidies. Understanding which product type benefits from which policy tools allows funds and developers to allocate capital more effectively and align strategies with evolving regulatory environments.

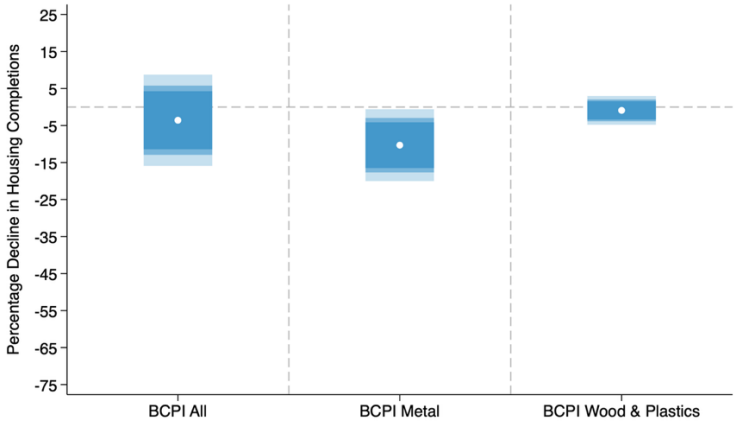
Input Price Shocks and Housing Supply

Fluctuations in construction input prices are a critical factor in housing supply dynamics. This relationship is particularly concerning in today's environment of global trade uncertainty. To evaluate this relationship, we use historical data on the BCPI to estimate how rising material costs affect housing completions.

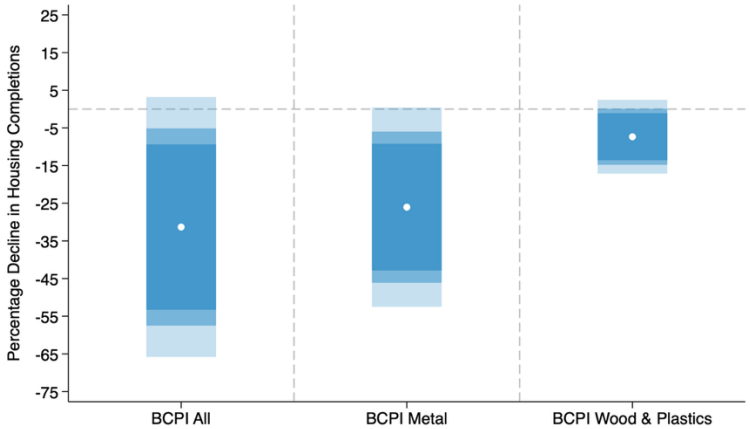
Figure 2 shows that a 10% increase in input prices, whether for overall construction, metal fabrications, or wood and plastics, is associated with a statistically significant drop in housing completions. For example, Panel A shows that 10% rise in the BCPI for metal inputs reduces housing completions by about 35% based on national averages. These results clearly and precisely illustrate how material price inflation can substantially slow down housing delivery. Panels B and C of Figure 2 present results disaggregated by housing type.



Panel A. Housing Completions



Panel B. Single-Family Completions



Panel C. Apartment Completions

Figure 2: Input Prices and Housing Completions

Notes: The figures are based on Online Appendix Table OA-3 and OA-4.

While rising construction costs negatively impact both single-family and apartment completions, the effect is relatively larger for apartment units. A 10% increase in the overall BCPI is linked to a decline in apartment completions equivalent to approximately 30% of the historical mean. This stronger sensitivity likely reflects the capital intensity and cost structure of multi-unit developments, which are more exposed to fluctuations in material prices, particularly during early construction phases.

For policymakers, these findings suggest that creating policy insulating against rising input costs can support a healthier housing supply in addition to improving regulatory conditions. Policy responses could include targeted tax relief or input cost supports for projects that meet local density needs. For investors and developers, this analysis reinforces the need for agile cost-contingency planning and timing strategies. For apartment developers, who face tighter margins and longer construction timelines, locking in material contracts or adopting modular construction may be key risk mitigation tools.

Ultimately, recognizing the impact of input cost inflation across housing types allows funds and policymakers to prioritize where and how to deploy investment and political capital, whether that means adjusting timelines, lobbying for policy relief, or rebalancing project types in response to construction market conditions.

Housing Completions and Median House Prices

While rising construction costs and regulatory delays can constrain completions, the next critical question is whether and how those supply constraints translate into higher prices for homebuyers. Understanding this relationship is essential for evaluating price appreciation potential and for policymakers targeting affordability outcomes.

We estimate the impact of new housing completions on median house prices using an econometric model designed to account for the possibility that price and supply influence each other. In other words, we recognize that not only can more housing supply affect prices, but rising prices can also incentivize more construction. This creates what economists call a “reverse causality” problem, one that, if ignored, could lead to misleading conclusions.

To address this, we use a widely accepted method known as instrumental variables (IV) regression, which allows us to isolate the causal impact of completions on prices.[4] Specifically, we use changes in construction input costs captured through quarterly returns

[4] We explain the model in more details in the Online Appendix.

in the BCPI for metal, wood, and composites as instruments for housing completions. These input cost shocks affect how much housing gets built but are not directly influenced by local housing demand, making them a valid and powerful tool for isolating the supply-driven effects on prices. Our model also controls for a wide set of demographic and economic variables including population growth, income levels, education, household composition, immigration, and labor market conditions, along with time fixed effects to absorb broader macroeconomic trends such as inflation and interest rates.

This approach allows us to move beyond correlation and provide a credible estimate of how completions affect housing affordability. The findings offer actionable insight for both government and investors: accelerating completions is not only about building more homes, but it is also a necessary condition to keep prices from rising unsustainably.

We model completions in a nonlinear (quadratic) form to capture potential thresholds in the price response. Figure 3 below presents the relationship between housing completions and median prices in Canada.

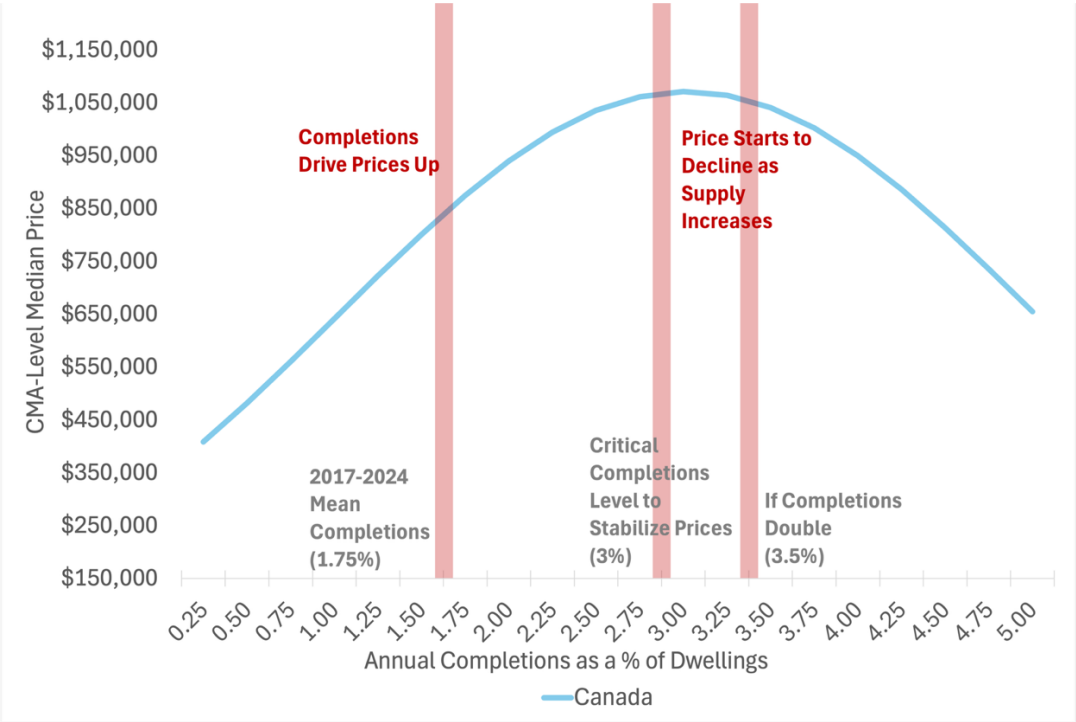


Figure 3: Housing Completions and Median Prices

Notes: The figure is based on Online Appendix Table OA-5.

Notably, the curve reflects a supply imbalance: at low completion rates (below 3%), additional supply continues to be absorbed by excess demand, pushing prices higher. For

example, if Canada continues building at the historical average pace of 1.75% of existing dwellings per year (2017–2024), completions do not relieve pressure on prices, but they do increase them. This is consistent with what our research suggests is an inverted short-run supply curve, where limited output meets strong demand.

Prices begin to stabilize only when annual completions reach 3% of the existing stock, which we label as the "critical completions level." Encouragingly, the federal government's plan to double the pace of homebuilding, which translates to roughly 3.5% of dwellings per year in our analysis, would be sufficient to shift the curve downward, as indicated in the figure.[5] At that point, adding more supply begins to reduce median prices, signalling a balance between supply and demand. We will further analyze this plan in our AI projection model in the next section for four major cities in Canada.

As shown in Table OA-5 in the Online Appendix, we also find that CMAs with higher shares of immigrants and non-PRs experience faster house price growth. Meanwhile, larger household size is associated with lower prices. This suggests that shared living arrangements, whether by choice or necessity, may act as a buffer against affordability challenges, highlighting the growing relevance of co-living models and density-efficient housing in addressing supply-demand mismatches.

How Population Projections Impact Housing Demand and Price: An AI Model

Recent shifts in Canada's immigration policy have introduced new dynamics into the housing market. In October 2024, the federal government announced a significant reduction in immigration targets, aiming to decrease the number of new permanent residents (PRs) from a previous target of 500,000 to 395,000 in 2025, a 21% drop. Additionally, measures have been implemented to limit the influx of temporary residents, including international students and foreign workers, to alleviate pressures on housing and social services. These policy changes are expected to slow population growth in the short term, potentially impacting housing demand and affordability.

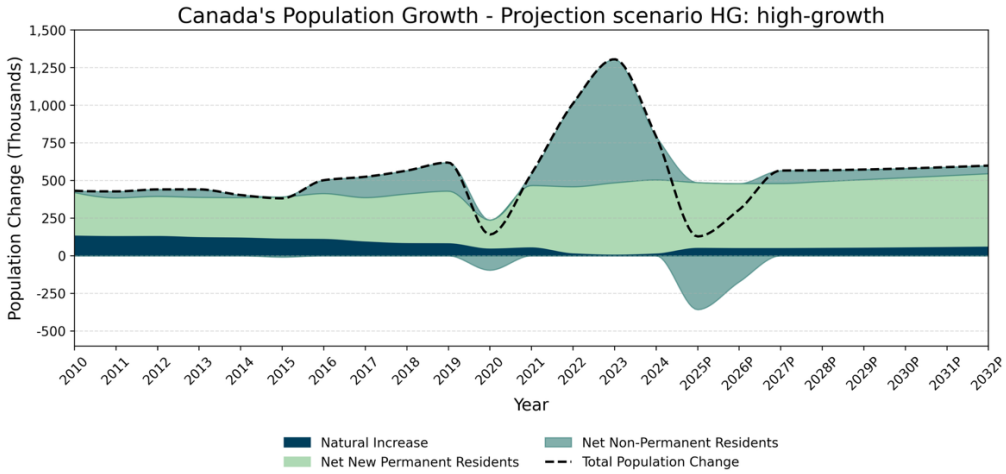
To assess the implications of these demographic shifts on housing prices, we employ an AI-driven forecasting model. This model integrates projected population trends, housing completions, and other relevant variables to predict median house price trajectories up to 2032. By utilizing advanced analytics, we aim to provide stakeholders with nuanced

[5] To read about the government's announcement, please read the CBC article.

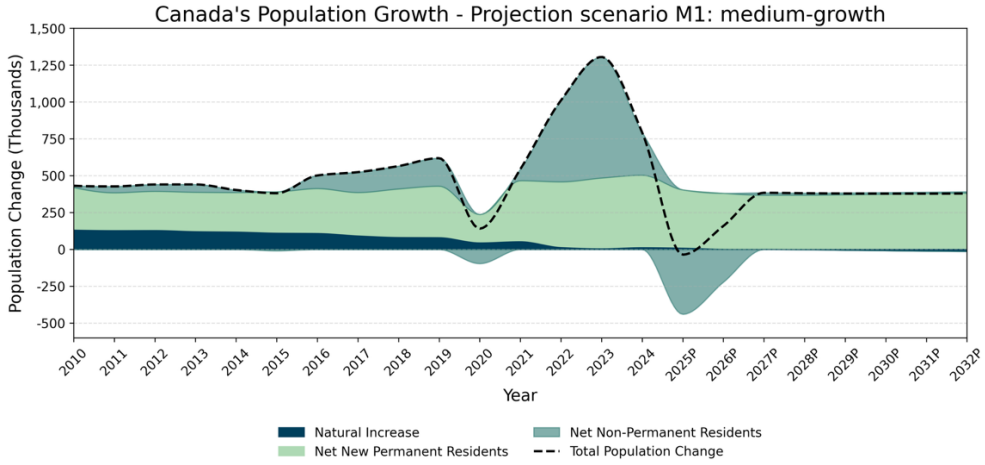
insights into how evolving immigration patterns and housing supply levels may influence future market conditions.

Canada's Population and Immigration Projections

To understand the future dynamics of housing demand, we present three forward-looking scenarios of population growth in Canada, prepared using Statistics Canada's projections for natural increase, immigration, and non-PRs.[6] These scenarios, High Growth (HG), Medium Growth (M1), and Low Growth (LG), help illustrate the range of possible demographic outcomes that housing markets may face through 2032. These scenarios are presented below in Figure 4.

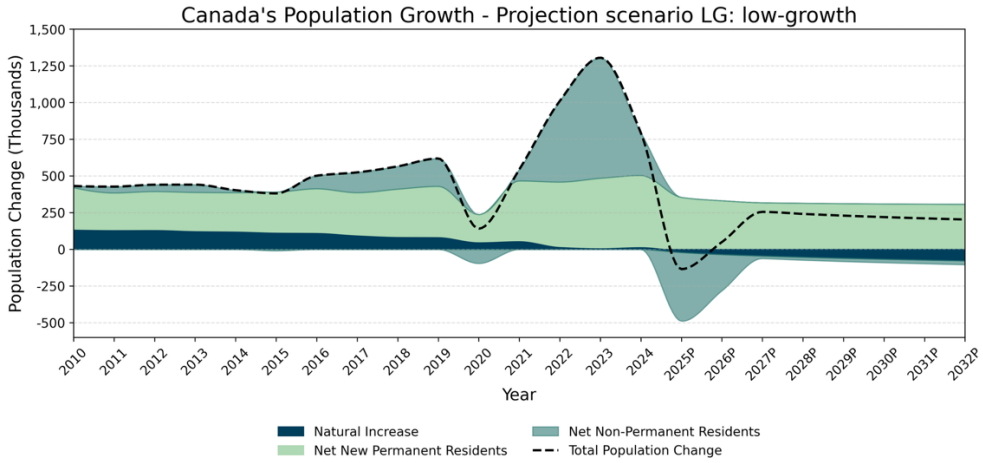


Panel A. High Growth



Panel B. Medium Growth

[6] For more details, please visit Statistics Canada Population Projections. The projections are publicly released by January 21, 2025.



Panel C. Low Growth

Figure 4: Population Projections by Statistics Canada

Source for population graphs: Statistics Canada

In the High Growth (HG) scenario, shown in Panel A of Figure 4, population growth remains robust through the decade, fuelled heavily by net non-PRs and sustained levels of immigration. This projection assumes continued strong inflows of temporary residents (international students, foreign workers) and rising permanent immigration. The pronounced spike around 2023–2024 reflects the record-level immigration and temporary resident admissions Canada experienced post-pandemic. Although the federal government has since moved to moderate these inflows, a rebound is expected in this high-growth scenario after the temporary pullback in 2025–2026. This scenario points to sustained upward pressure on housing demand, especially in major CMAs.

In the Medium Growth (M1) scenario presented in Panel B, population growth is more balanced. While immigration remains a key contributor, there is a visible dip in net non-PRs in the mid-2020s, aligning with the federal government's 2024 announcement to temporarily cap the number of international students and other non-PRs. Growth resumes gradually toward the end of the decade. This trajectory represents a middle path, where demand pressures persist but may stabilize, providing developers and policymakers with more room to plan.

The Low Growth (LG) scenario in Panel C reflects a more conservative outlook, with prolonged reductions in non-PR inflows and muted immigration growth. Population change slows significantly in the latter half of the 2020s, and net non-PRs contribute negatively to growth in several years. Under this scenario, housing demand would moderate more substantially, potentially easing affordability pressures, but this raises concerns for regions reliant on population-driven growth. We use these three scenarios in our AI model to project future house prices in Canada.

AI Housing Price Projections

After identifying the key drivers of housing prices, we use those insights to project future median home values across major Canadian markets using a neural network-based AI model. While traditional, interpretable models help us understand underlying relationships, AI offers superior predictive accuracy when projecting future outcomes. For these projections, we incorporate Statistics Canada’s population forecasts under low-, medium-, and high-growth scenarios extending to 2032.

To assess the role of new housing supply, we simulate three forward-looking scenarios for each city. Panel A in each figure reflects a baseline scenario using the average housing completion levels observed between 2017 and 2024. Panel B assumes a 50% increase in housing completions, while Panel C models a doubling of the completion pace. These changes are directly embedded into the model as scaled completion ratios, and all other demographic and economic variables are updated using forward-looking projections.

Our AI-driven forecasts suggest that the federal government's recent immigration policy may temporarily stabilize house prices through 2026. However, as population growth resumes, prices begin to climb again, albeit at a slower pace than in the previous five years. We also find that increasing housing supply can dampen or delay price growth, especially

in cities with strong demographic pressures. By holding population forecasts constant and varying supply, we isolate the impact of completions on price dynamics, offering actionable insights for developers, investors, and policymakers.

AI Housing Price Projections for Toronto

Figure 5 below shows that median home prices in Toronto are projected to reach approximately $1.5M in 2025. The recent policy to reduce non-PRs helps stabilize prices temporarily until 2027. However, as population growth normalizes, averaging 400,000–500,000 new residents per year, prices begin climbing again. Under the baseline scenario (mean completions from 2017 to 2024), median prices are projected to hit $1.8M by 2032 (today's dollars).

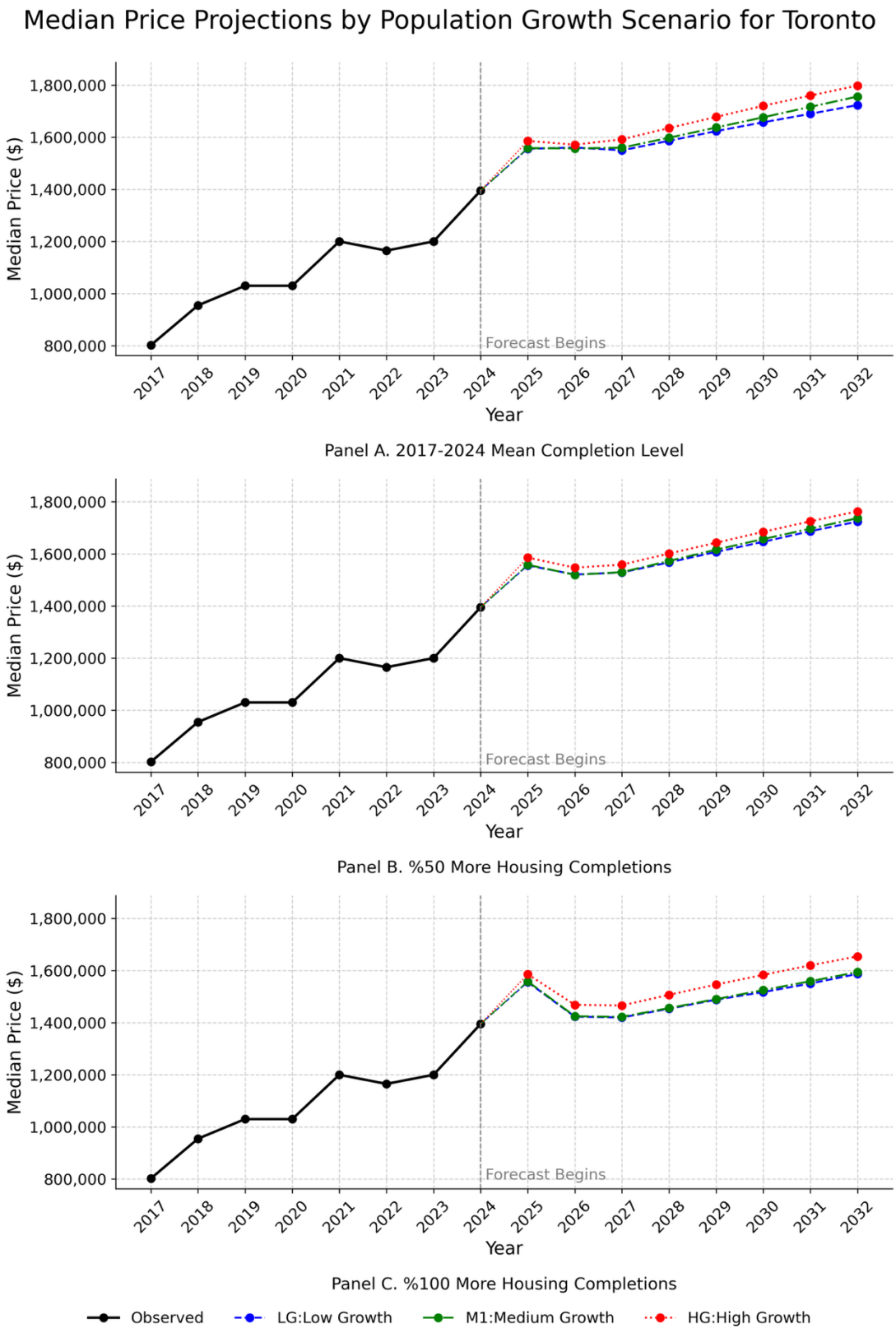


Figure 5: AI Projections of Median Price for Toronto

Increased supply can significantly alter this trajectory. A 50% increase in completions moderates price growth, reducing the 2032 median to just under $1.8M. In the scenario, where housing completions double (100% increase), median home prices fall to about $1.6M by 2032. In short, while modified immigration policy slows the pace of price increases, Toronto remains on an upward price trend, unless meaningful supply-side interventions are made.

AI Housing Price Projections for Vancouver

In Vancouver, the policy-driven reduction in immigration leads to a modest dip in prices by 2025, but the effect is short-lived. Prices resume their upward trend as population growth rebounds, with the median home price rising from $2.5M to nearly $2.8M under the baseline completion level by 2032. Figure 6 below presents these findings.

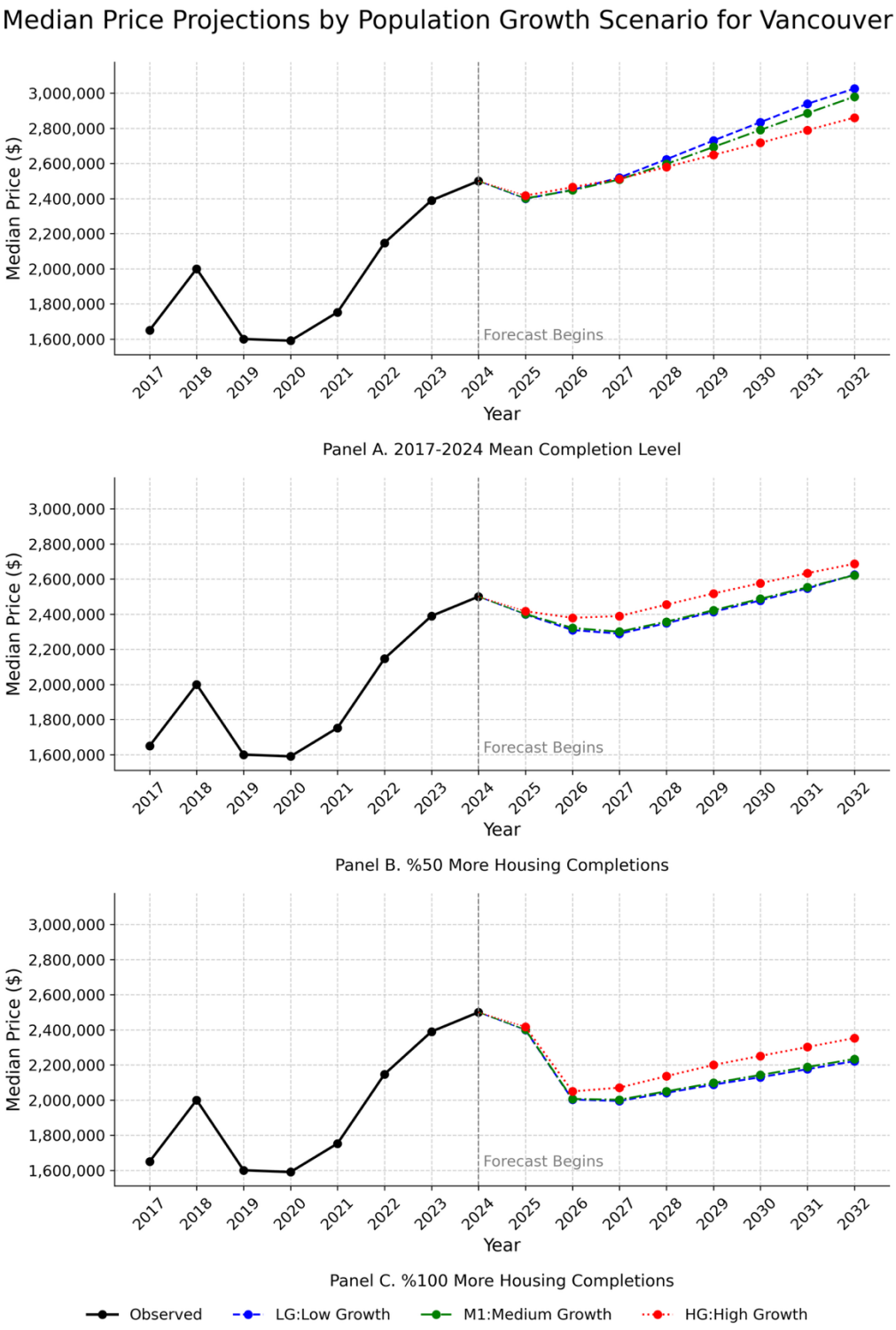


Figure 6: AI Projections of Median Price for Vancouver

Interestingly, even a 50% increase in completions does not significantly slow the trend, and prices still edge above $2.8M. Only when completions are doubled do we observe a flattening effect, keeping prices closer to $2.5M by the end of the forecast horizon. This

reflects the deep supply-demand imbalance in Vancouver, where even aggressive construction is needed just to stabilize pricing.

AI Housing Price Projections for Montréal

In Montréal, the impact of the modified immigration policy is visible in a brief price dip in 2025, but housing prices begin to climb steadily thereafter. Regardless of supply scenarios, median prices are projected to rise from around $740,000 to over $800,000 by 2032.

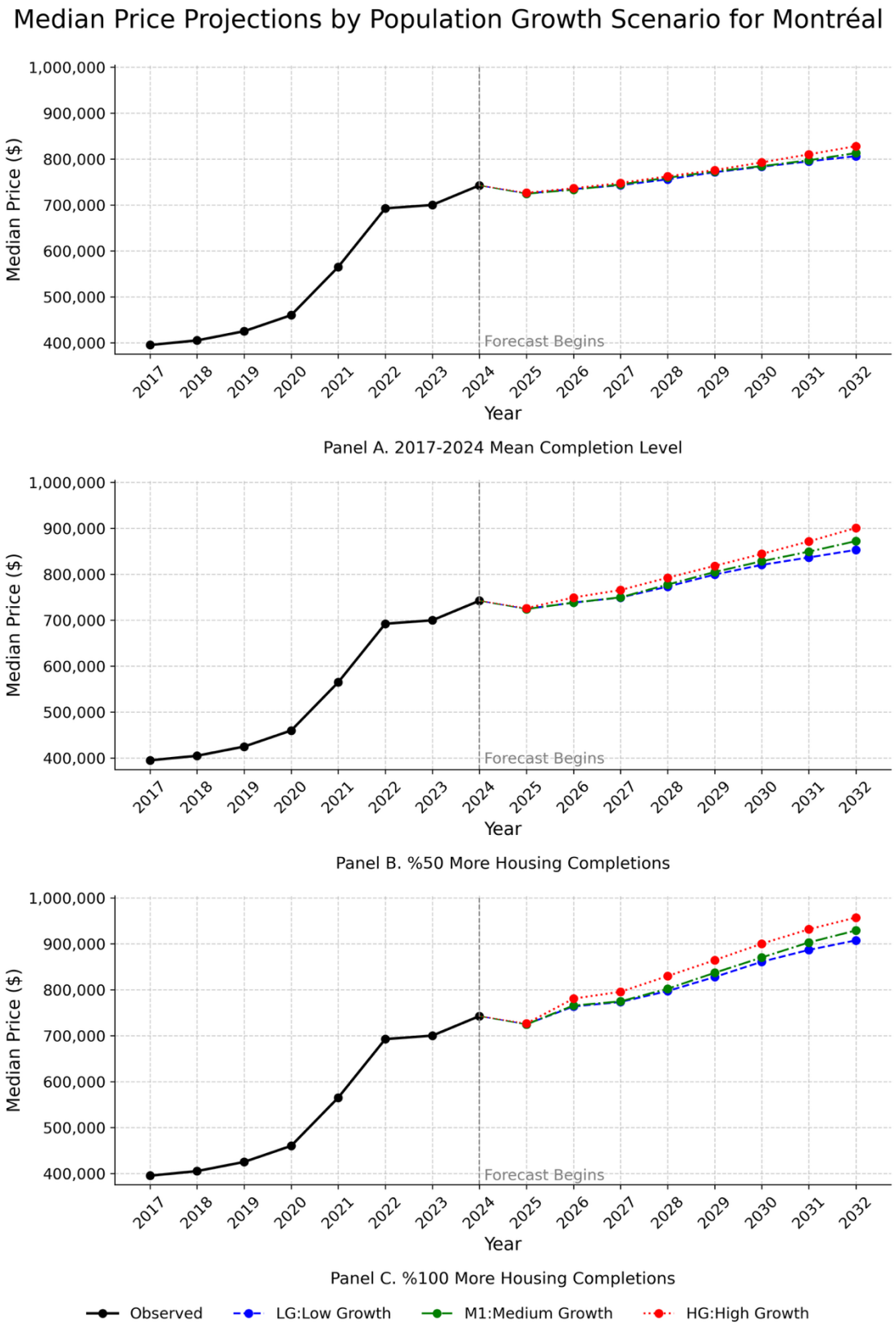


Figure 7: AI Projections for Median Price for Montreal

More strikingly, higher completion scenarios result in even higher prices approaching $900,000 by 2032. This counterintuitive outcome reflects an inverted supply curve, where the current level of completions is too low to meet demand and incremental supply is absorbed without pushing prices down. This dynamic, consistent with earlier findings (see Figure 3), signals that substantial increases in completions are required before prices begin to stabilize in Montréal.

AI Housing Price Projections for Calgary

In Calgary, the effects of the federal immigration policy are most pronounced. Median prices are projected to drop from $740,000 to approximately $690,000 by 2025. With increased supply, the dip is even more pronounced, reaching near $600,000 under the most aggressive completion scenario.

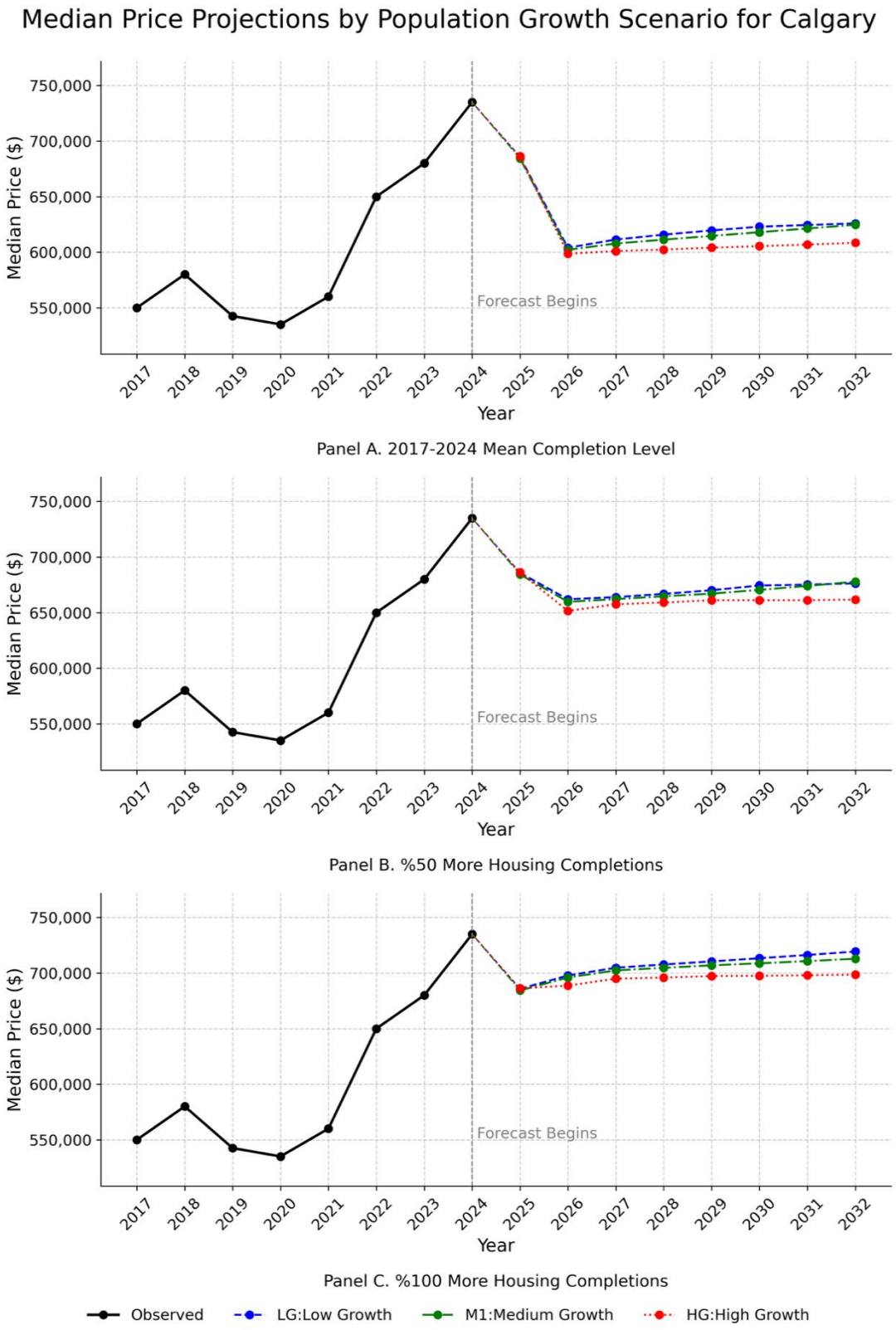


Figure 8: AI Projections of Median Price for Calgary

However, prices gradually recover, stabilizing around $650,000–$730,000 by 2032, depending on the supply path. Calgary stands out as a market where immigration policy significantly offsets price increases, and where supply interventions can directly influence future affordability. This finding provides a unique window for planners and developers to align future projects with the city's evolving demographic profile.

Summary of Findings

Reducing municipal red tape can be a low-cost and effective way to promote housing supply. Our study found that streamlining municipal processes that artificially constrain housing supply, particularly for higher density construction, could increase annual housing completions by about 10%, even without additional spending or new programs. It bears noting that municipalities making efforts to reduce such roadblocks in recent years have already begun to see significant benefits. Likewise, policies that help mitigate rising costs also play a role in unlocking needed supply.

However, streamlining regulations and approvals while working to keep construction costs stable are not sufficient to move the needle on housing prices. Solving Canada's housing challenges involves working both the supply and demand side of the market. The demand for housing also depends on our growing population. Immigration policy has a marked effect on the degree to which supply increases mitigate prices, to say nothing about affordability.

Canada's housing market faces additional challenges: the intractability of housing affordability, lack of skilled construction labour, increasing material costs, and the time it takes to increase the supply of homes, just to name a few. This is an area primed for further practical research. This first-of-its-kind research gives us some quantifiable direction regarding policy surrounding this generational problem as Canadians demand solutions.