

SPECIAL REPORT

TD Economics



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FROM A LONGER-TERM GROWTH PERSPECTIVE, WEST IS STILL BEST

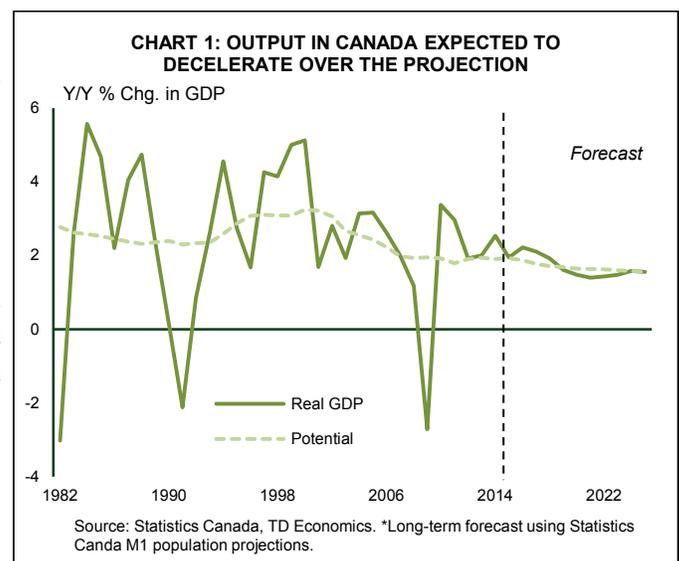
Highlights

- Much of the recent commentary on the Canadian economy has focused on the negative impact of lower oil prices on output growth in the near and medium term. This is particularly the case for the oil-rich provinces of Alberta, Saskatchewan, and Newfoundland and Labrador.
- However, looking to the long game, our analysis points to the West returning to the head of the growth pack once oil prices return to somewhat higher levels. They have their young and growing populations to thank (Alberta), as well as solid productivity growth (Saskatchewan).
- In contrast, Central and Eastern Canada, as well as British Columbia, are expected to fall behind over the long term, largely as a result of weak population growth. And the slowly growing population in these provinces is aging rapidly, thereby putting further downward pressure on growth in hours worked.
- An aging population and weak economic growth are expected to weigh on increases in living standards, as well as investment opportunities and business profits. Government coffers will also be adversely impacted, as revenue growth slows while demand for aging-linked services rises.
- That said, this is a 'status-quo' scenario, and is therefore not inevitable. Actions can be taken to increase the immigration rate and the labour force participation rate. Additionally, firms can invest to increase productivity while governments can provide a business friendly climate for investment.

So far this year, all eyes have turned to the near-to-medium term impacts of the recent plunge in oil prices on the provincial economic landscape. Much hay has been made about the fall from grace of Canada's seemingly perennial growth leaders, Alberta and Saskatchewan, who have been replaced at the upper end of the leaderboard by oil-importing regions such as Ontario and British Columbia.

However, as we show in this report, from a longer-term growth perspective, these two Prairie Provinces still have the edge. Oil and other commodity prices will always move up and down, thus creating cyclical movements in economies. Instead, a longer-term forecast attempts to look through this noise by honing in on structural drivers of growth, including population changes and productivity trends. As such, our long-term view has not been altered by recent events in the global oil market. The West will again be the best.

Nonetheless, mirroring trends across advanced economies, Canada is expected to experience slower trend growth going forward (Chart 1). Underlying this, provinces from coast to coast



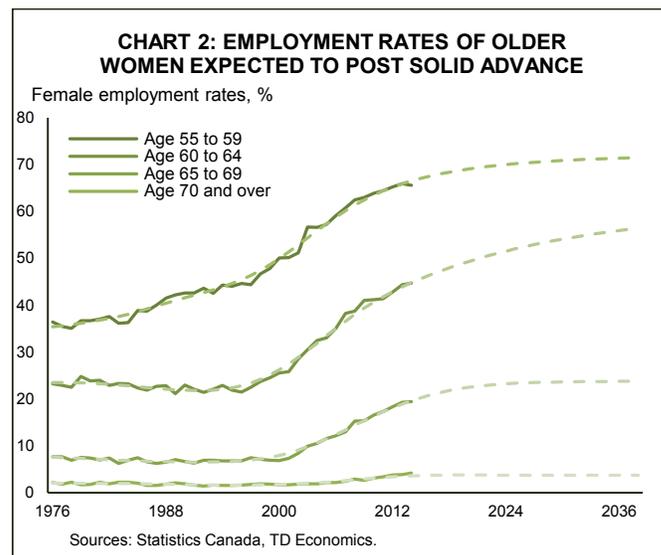
will likely face weaker growth over the next decade than they've become accustomed to. So, although we continue to see a wide variation in regional growth performances over the longer-haul, no province will be immune to the challenges of weaker trend economic growth. These challenges include pressures on government fiscal positions, a growing need to increase productivity and for businesses to diversify markets.

Estimating and projecting trend output

Fundamentally, economic growth can be broken down into the sum of two components: growth in hours worked (or labour supply) and productivity. Gains in labour supply are driven by trends in population growth, migration patterns and employment rates across age and sex cohorts. For this analysis, we have benefitted from Statistics Canada's revised population projections through 2038, released in the fall of 2014. These projections include refreshed assumptions on fertility, mortality and immigration (see Appendix for a discussion regarding changes in assumptions). Statistics Canada generates a number of projection scenarios based on differing assumptions for the trajectory of key determinants of growth – such as immigration. For this report, we have applied the medium (M1) scenario which is based on interprovincial migration trends over the 1991-2011 period.¹ This seems reasonable, as this long time frame embeds a few full economic and commodity price cycles.

TD Economics takes a very mechanical approach to projecting potential GDP at the national and provincial levels, similar to the integrated framework used by the Bank of Canada.² First, a model that embeds the population projections from Statistics Canada and applies projected employment rates by age and sex cohort is used to generate an estimate for total hours worked by jurisdiction. Employment rates vary across provinces, but are expected to post notable advances among the oldest cohorts of the population (55 years and over) and females over the forecast period, in line with their historical trends (Chart 2). However, the shrinking share of prime-aged workers (aged 25 to 54) in the population will more than offset this improved performance, leading to weaker labour supply growth over the long term.

Long-term productivity performance more directly captures the impact of investment, infrastructure spending, tax rates, resource output, among many other factors. On a longer-term basis, productivity growth has tended to be quite stable, both nationally and across provinces. For the



purposes of this report, we assume that labour productivity will ultimately return to its long-run average, after varying over the medium term in line with expected economic developments. This methodology is consistent with that used in an earlier TD Economics report '[Potential To Improve: A Comparison Of Canadian And U.S. Trend Output Growth](#)', and is also the convention used by other institutions that project long term economic growth such as the Canadian Department of Finance, Parliamentary Budget Officer and Office for Budget Responsibility (U.K.). We note that there is a reasonable argument that firms and governments will react to slower population growth by substituting capital for labour and implementing other policies that will raise productivity. However, we have cautiously elected not to build in this effect, as there is little empirical evidence to support this argument.³

Trend growth to ease across all provinces, but West is still best

As the pace of population growth slows and Canadians collectively age, growth in hours worked can be expected to fall. Nationwide, our analysis finds that growth in trend total hours worked is likely to edge down from 0.8% in 2014 to around 0.5% after 2020. All told, our current outlook is for real GDP growth in Canada to slow from a historical annual average of nearly 2.5% to less than 2% over the next decade. This is a roughly one-third drop in the trend rate of expansion. It is important to note that we expect real GDP growth to fluctuate around this trend, reflecting the business cycle. For instance, our [March 2015 Quarterly Economic Forecast](#)

Table 1: Estimated and Projected Provincial Real GDP Growth

% growth	History	25-Year Forecast			
	1982-2013	2014-2016	2017-2038		
	Real GDP	Real GDP	Real GDP* =	Labour Input +	Productivity
Canada	2.4	2.2	1.7	0.5	1.2
Atlantic Provinces	2.1	1.2	0.4	-0.8	1.2
Quebec	1.9	1.9	0.9	0.1	0.8
Ontario	2.6	2.6	1.5	0.3	1.2
Manitoba	2.1	2.1	1.9	0.7	1.2
Saskatchewan	2.2	1.4	1.9	0.3	1.6
Alberta	3.1	2.1	2.6	1.5	1.1
British Columbia	2.5	2.6	1.1	0.5	0.5

Sources: Statistics Canada, TD Economics. *Equation may not appear to add up due to rounding.

assumes real GDP growth remains above its potential for the next few years.

From a regional perspective, all provinces are likely to record slower trend growth over the next few decades relative to the past 30 years, but the deceleration in economic growth is more magnified in the Atlantic region (Table 1).⁴ The aging of the population, combined with weaker labour participation, point to a contraction in the trend hours worked in Atlantic Canada's labour force of about -0.8% per year, on average, after 2016. In contrast, trend productivity growth across the Atlantic region is expected to be broadly in line with the national average. This combination points to a slow trend rate of economic growth of about 0.4% for the region as a whole going forward. Quebec also faces a challenging demographic backdrop. And, when combined with subpar gains in labour productivity, this translates to a modest annual average real GDP growth profile of around 1% over the long term.

In contrast, after slowing to a virtual standstill in 2015-16 on account of the free fall in oil prices, Alberta is expected to reemerge at the top of the pack, with economic growth forecast to average 2.6% over the long term. Ditto for Saskatchewan, where a pullback in its oil sector will also detract from growth over the near term (although not to the same extent as in Alberta). In Alberta, growth in hours worked is forecast to average 1.5% annually over the 2017-2038 period, more than twice as fast as the next closest province. Labour productivity growth in Saskatchewan is assumed to be among the highest in Canada reflecting the continued trend observed over history. This will help offset a weaker labour input growth profile and keep Saskatchewan running at a healthy 1.9% clip, on average, after 2016. Manitoba (+1.9%) is also poised to outperform beyond 2016.

In Ontario (+1.5%), long-term real output growth is projected to come in around the Canadian average.⁵ In B.C., sub-par productivity has been its Achilles heel. And, without a more meaningful pickup from its long term trend, its growth will be held to only 1.1% on an annual basis. It is important to note that this projection does not build in the potential of liquefied natural gas (LNG) developments, which could be a game changer over the long run. Additionally, wealth effects from a rapidly aging population could also impact economic growth, but this is also not accounted for in our long-term model.

Migration trends a swing factor

A big swing factor regionally will continue to be labour supply and, more specifically, assumptions on migration flows. On a national basis, immigration rates have held firm in recent decades, despite the recent economic downturn and periods of higher-than-normal unemployment. That said, the regional distribution of immigrants to Canada has also changed in recent years. Indeed, the share of immigrants whose province of landing is Ontario has declined, from about 6 in 10 in 2001 to 4 in 10 in 2011 (see Table 2). Over the same period, the share of immigrants choosing Alberta and Saskatchewan as a destination of landing has increased significantly, particularly during the 2009 to 2011 period (likely as a result of their relative economic outperformance). Quebec and Atlantic Canada also recorded a notable uptick in its share of immigrants from 2001 through 2011, although the latter region remains a laggard relative to the rest of Canada.

The long-term projection used in this analysis assumes that the immigration rate over the forecast period is around 7.5 immigrants per 1,000 population. The regional distribu-

Table 2: IMMIGRATION INFLOWS BY PROVINCE

% share of immigrants	2001	2006	2011
Atlantic provinces	1.3	2.1	2.7
Quebec	15.0	17.8	20.8
Ontario	59.3	50.0	40.0
Manitoba	1.8	4.0	6.4
Saskatchewan	0.7	1.1	3.6
Alberta	6.5	8.2	12.4
British Columbia	15.4	16.7	14.0

Source: Statistics Canada.

tion of immigrants is assumed to remain broadly unchanged over the forecast period.

Interprovincial migration is the most important component of population growth for some provinces. In the short-term, interprovincial flows can be quite volatile. For example, net interprovincial migration accounted for around 35% of the population increase in Alberta over the 2012-13 period, compared to the just over 3% over the 2009-10 period. Further, the recent plunge in oil prices is expected to impact interprovincial migration flows yet again – with non-resource based economies expected to see their interprovincial-migration flows become more positive relative to recent years at the expense of oil-rich regions. However, these shifting interprovincial-migration patterns are expected to be transitory and are likely to revert to more historically normal trends as oil prices rise over the long term. As such, in the population growth scenario used for this analysis, only Alberta and British Columbia experience positive net interprovincial migration (Chart 3).

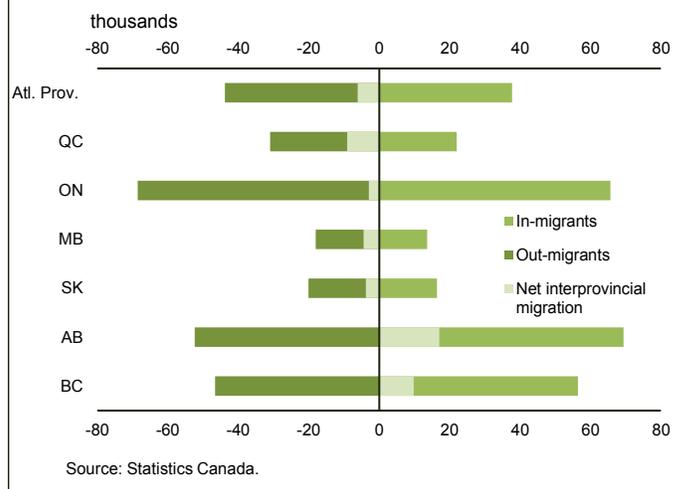
Implications of slower economic growth in Canada

In needing to face up to its demographic challenges, Canada is not alone. Indeed, provincial growth on average still fares better than that recorded in many other countries, where demographics are less favourable. Still, the impacts will be felt.

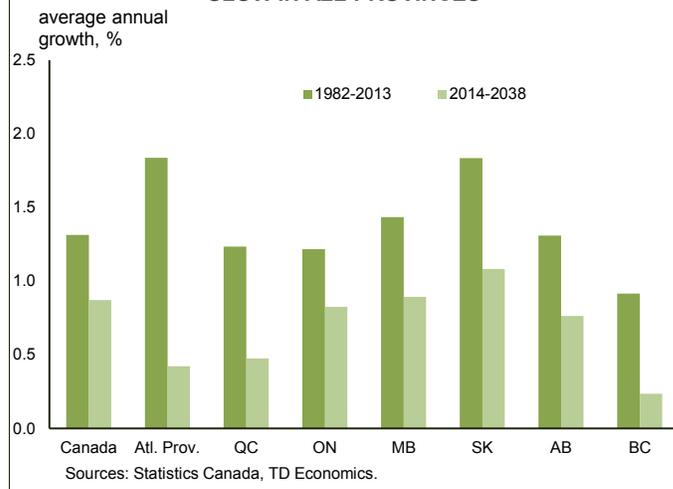
One avenue where this is most apparent is the standard of living – measured as growth in real GDP per capita. At a national level, real GDP per capita is expected to reach about \$60,000 in 2038, up from roughly \$48,500 in 2013. This equates to an average annual increase of about 0.9%, in contrast to a 1.4% annual increase from 1982 to 2013 (Chart 4).⁷ At the provincial level, the differences in growth

rates are stark. For instance, per capita real GDP growth is expected to be essentially flat in B.C. In contrast, Quebec and the Atlantic Provinces are expected to fare better, although this is largely the result of weak population growth. Meanwhile, projected per capita real GDP growth in the Prairie Provinces is the result of strong economic growth. Growth in Ontario’s real GDP per capita is expected to roughly come up the middle, as both real GDP and population growth are forecast to be modest.

A slowdown in economic growth will also put pressure on government fiscal positions. Government revenues tend to grow in line with nominal GDP over the long run. Our projections imply nominal GDP will grow closer to 4% than the traditional 5%, limiting potential revenue intake. On

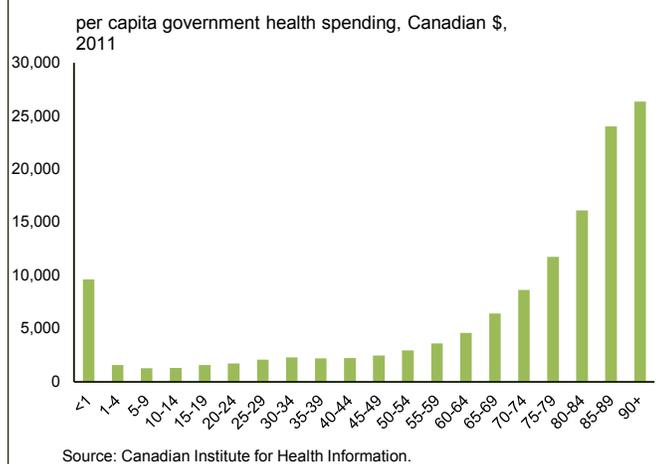
CHART 3: ONLY ALBERTA AND BC EXPECTED TO ATTRACT CANADIANS ON NET


Source: Statistics Canada.

CHART 4: REAL GDP PER CAPITA GROWTH TO SLOW IN ALL PROVINCES


Sources: Statistics Canada, TD Economics.

CHART 5: HEALTH CARE EXPENSES TO RISE ALONG WITH AGING POPULATION



the other side of the coin, an aging population puts upward pressure on the costs associated with some expenditure categories, notably health expenditures at the provincial level and elderly benefits at the federal level. For instance, Canadian Institute for Health Information data highlights that per capita health care expenditures increase at a nearly exponential rate beginning in one's 40s (Chart 5). This higher growth in health care costs reflects both increases in the quality of service and its labour-intensive nature, as well as general consumer price inflation.⁷ One of the concerns related to the increased pressure on health care is that expenditures on that front may crowd out spending on other priorities, like education and infrastructure, which are critical for future economic success.

Weaker long-term trend growth will also be a challenge for businesses, in terms of growing top lines, as economic and income growth slows. This will put added pressure on firms to diversify into new markets and product lines, as well

as increase productivity. However, shifting demographic trends may also create new opportunities for diversification.

Risks around the projections

TD Economics' long-term provincial projections use both simplifying assumptions and are status-quo in nature. The long-term economic growth path of a province can be changed through a number of different channels. These include a different mix of government policies, economic and political developments outside a region's borders, the introduction of new technologies, and the discovery and extraction of a major natural resource (e.g., oil). As such, while a 25-year outlook mitigates the risk of resource cycles, for instance, it doesn't eliminate it.

Bottom line

Recently, plunging oil prices have stolen the spotlight, but the aging Canadian population presents a diverse set of challenges for the Canadian economy over the longer term. Growth is expected to slow, largely as a result of slower growth in the labour force. Consequently, growth in GDP per capita – a broad measure of living standards – is also expected to soften. An easing in the pace of GDP growth will also impact government coffers. Indeed, lower tax revenue coupled with rising costs associated with age-sensitive services such as health care pose serious fiscal challenges.

From a regional perspective, despite the recent changing of the guard in short-term prospects, Alberta and Saskatchewan are forecast to return atop the leaderboard over the longer-term. Demographic challenges are more acute in regions east of Ontario. As such, the rate of economic expansion in these provinces is forecast to record a more marked slowdown vis-à-vis the rest of Canada.

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Appendix – Assumptions Underlying Long-Run Population Projections

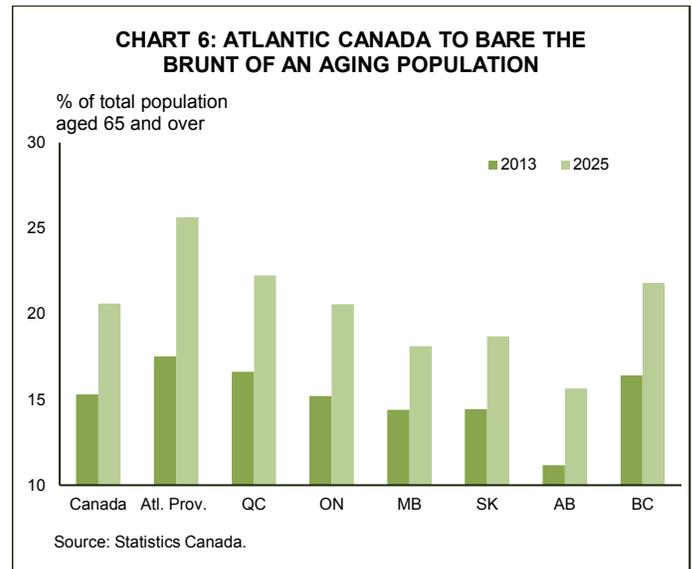
The recently revised population projections from Statistics Canada reiterated a well-known narrative: the Canadian population is still getting older, as we are having fewer children while the baby boomers age (Chart 6). Further, Canada continues to remain reliant on immigration as a source of population growth. This has helped historically to modestly compensate for our lagging labour productivity relative to our neighbour to the south, and is expected to continue providing some comparative benefit. That said, not all provinces will experience aging equally. The projections used for this report refer to Statistics Canada’s M1 projection scenario, which is based on the longest reference period for average growth, from 1991/1992 to 2010/2011.⁸

Fertility rate

There are several underlying causes of our aging population. First is the changing trend in the fertility rate. After peaking at nearly 4% around 1960, the fertility rate fell to just 1.6% in 2011. In its new population projections, Statistics Canada assumes that the fertility rate rises to roughly 1.7% in 2021, and is held constant thereafter.

Mortality rate

On the other side of the coin, the mortality rate has remained relatively flat since the 1980s (at around 7 people per 1,000). Meanwhile, life expectancy in Canada has been increasing steadily over the years. Since 1981, life expectancy has increased by 7.4 years for males (to reach 79.3 years of age) and 4.6 years for females (to reach 83.6 years of age). Looking ahead, the average life expectancy should



improve and is ultimately expected to reach 87.5 years for males and 89.1 years for females.

Immigration rate

Immigration rates have held firm in recent decades, despite the recent economic downturn and periods of higher-than-normal unemployment. This is a departure from historical performance, possibly reflecting the global scope of the recent recession and Canada’s comparatively better labour market performance. The long-term projection used in this analysis assumes that the immigration rate – the number of immigrants per 1000 persons – is 7.5 in 2025, rising modestly from 7.4 per 1,000 in 2013.

ENDNOTES

1. The medium-growth and 1991/1992 to 2010/2011 interprovincial migrations trends scenario is defined by the following assumptions: a Canadian total fertility rate that reaches 1.67 births per woman in 2021/2022 and remains constant thereafter; a Canadian life expectancy that reaches 87.5 years for males and 89.1 years for females in 2062/2063; interprovincial migration based on the trends observed between 1991/1992 and 2010/2011; a national immigration rate that reaches 0.75% in 2022/2023 and remains constant thereafter; an annual number of non-permanent residents (Canada) that reaches 864,600 in 2021 and remains constant thereafter; a national net emigration rate of 0.19% - CANSIM Table 052-0005.
<http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=520005>
2. Pichette, L., St-Amant, P., Tomlin, B., and Anoma, K., “Measuring Potential Output at the Bank of Canada: The Extended Multivariate Filter and the Integrated Framework”, Bank of Canada, January 2015.
<http://www.bankofcanada.ca/wp-content/uploads/2015/01/dp2015-1.pdf>
3. Beach M. C., “Canada’s Aging Workforce: Participation, Productivity and Living Standards”, Bank of Canada, November 2008.
<http://www.bankofcanada.ca/wp-content/uploads/2010/09/beach.pdf>
4. See recent work by the Bank of Canada on regional differences in participation rates for more information - Cheung, C., Granovsky, D., and Velasco, G., “Changing Labour Market Participation Since the Great Recession: A Regional Perspective”, Bank of Canada, February 2015.
<http://www.bankofcanada.ca/wp-content/uploads/2015/02/dp2015-2.pdf>
5. We note that our long-term economic growth forecasts for Ontario and Quebec are weaker than those published in the Ontario Long-Term Report and Quebec Fiscal Update. Both forecast a deceleration in economic growth, but not by as much as the projections presented in this report. Methodological differences account for the difference growth projections. What’s more, both governments use their own internal population projections for their respective analysis while we use Statistics Canada’s population estimates.
6. If living standards were to continue growing at their historic pace, real GDP per capita could be expected to reach about \$68,000 by 2038 – roughly \$7,500 higher than our forecast suggests.
7. Deraspe, R., “Canada’s Aging Population and Public Policy: The Effects on Health Care, Publication No. 2011-122-E”, Library of Parliament, October 2011.
<http://www.parl.gc.ca/Content/LOP/ResearchPublications/2011-122-e.pdf>
8. Statistics Canada, summary of long-term projection scenario assumptions:
<http://www.statcan.gc.ca/pub/91-520-x/2014001/tbl/tbl1.1-eng.htm>

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