

Diversification nation?

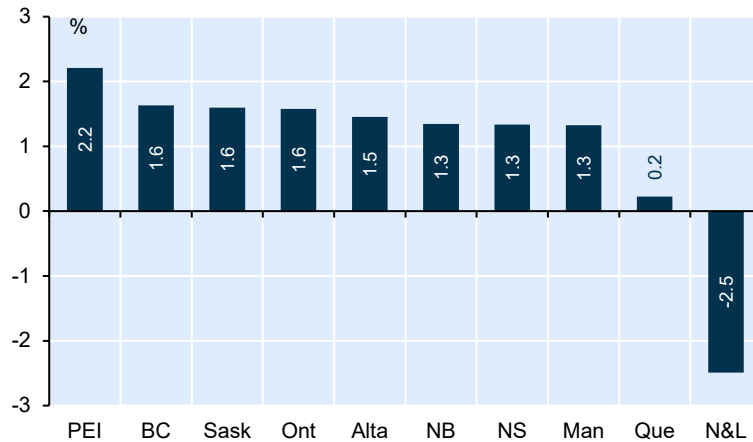
By Warren Lovely, Jackson Atkinson & Daren King

Even a quick study of StatCan’s annual release of provincial GDP by industry data tends to yield some interesting tidbits/takeaways. The latest version, out recently and covering 2023, is no different.

Most obviously, provincial GDP data provide a window into regional economic performance. Not that real GDP growth is everything, but StatCan tells us that real output (at basic prices, by industry) expanded in nine of ten provinces last year. Prince Edward Island took top prize in terms of year-over-year growth, while Newfoundland and Labrador was the sole region where activity outright contracted.

If the impact of surging population counts wasn’t clear enough in 2022, it was impossible to ignore in 2023. Provincial GDP growth rates have become more closely correlation with population gains than in years gone by. Most troubling, in no province did real output keep pace with population. That’s another way of saying real GDP per capita was everywhere in decline in 2023. This was not the first time all ten provinces suffered a hit to real output per capita. Both 2009 and 2020 produced universal suffering too. Nor is 2023 likely to be the

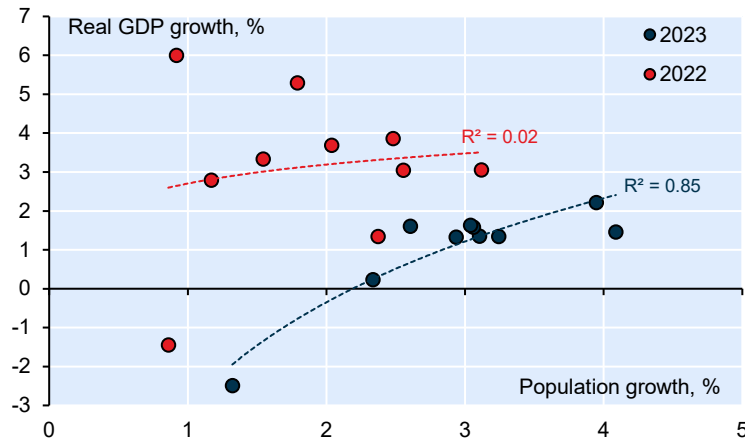
Chart 1: On the surface, 2023 delivers mostly positive growth
Real GDP growth by province: 2023



Source: NBF, StatCan | Note: 2023 growth only; ordered fastest to slowest

Chart 3: Growth more closely linked to population in 2023

Real GDP growth vs. population growth: 2023 & 2022



Source: NBF, StatCan | Note: Population growth based on projections as at 1-Jul

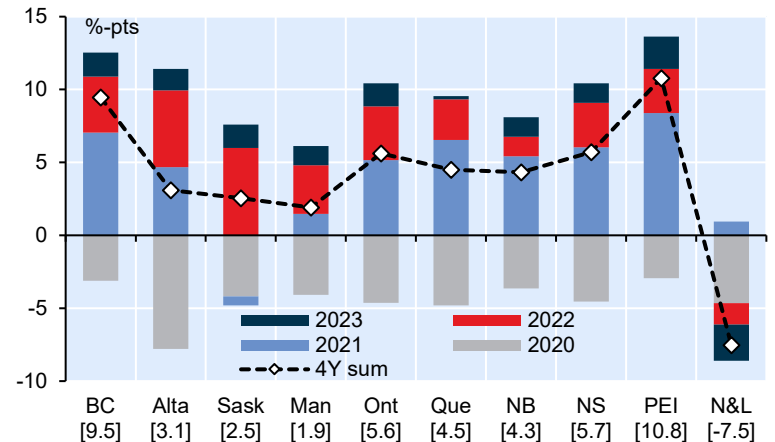
last time all 10 provinces lose ground on real GDP per capita. It seems we’re likely to repeat this rather dubious feat in 2024, which argues for less restrictive monetary policy (and soon). We’d refer you to our upcoming issue of *Monthly Economic Monitor* for more detail on our provincial economic outlook.

Beyond the somewhat sobering tallies on per capita output growth, these GDP by industry data allow us to gauge relative diversification (or concentration if you prefer). Relying on GDP shares for twenty industries, we present updated Herfindahl-Hirschman Indices for each province. Based on the latest HHI tallies—which is but one statistical approach to measuring concentration—Manitoba and Quebec remain the two most diversified provinces in Canada.

Why bother tracking/measuring economic diversification? Well, it remains the case that industry concentration often corresponds with/leads to economic and budgetary volatility, which is something provincial bondholders may wish to consider.

Chart 2: Putting the COVID hit & recovery in perspective

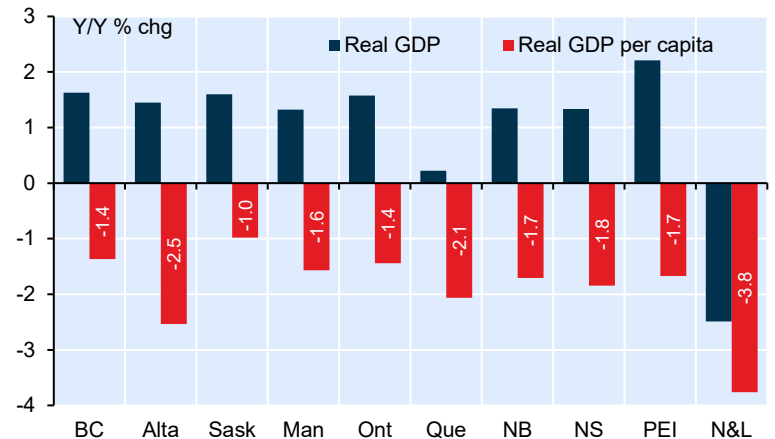
Real GDP growth by province: 2020 to 2023 (incl. cumulative total)



Source: NBF, StatCan | Note: Markers & figures in [.] represent total/cumulative growth over full 4Y period (to 2023); ordered by geographic location (west to east)

Chart 4: Per capita output down in all 10 provinces last year

Real GDP growth by province in absolute & per capita terms: 2023

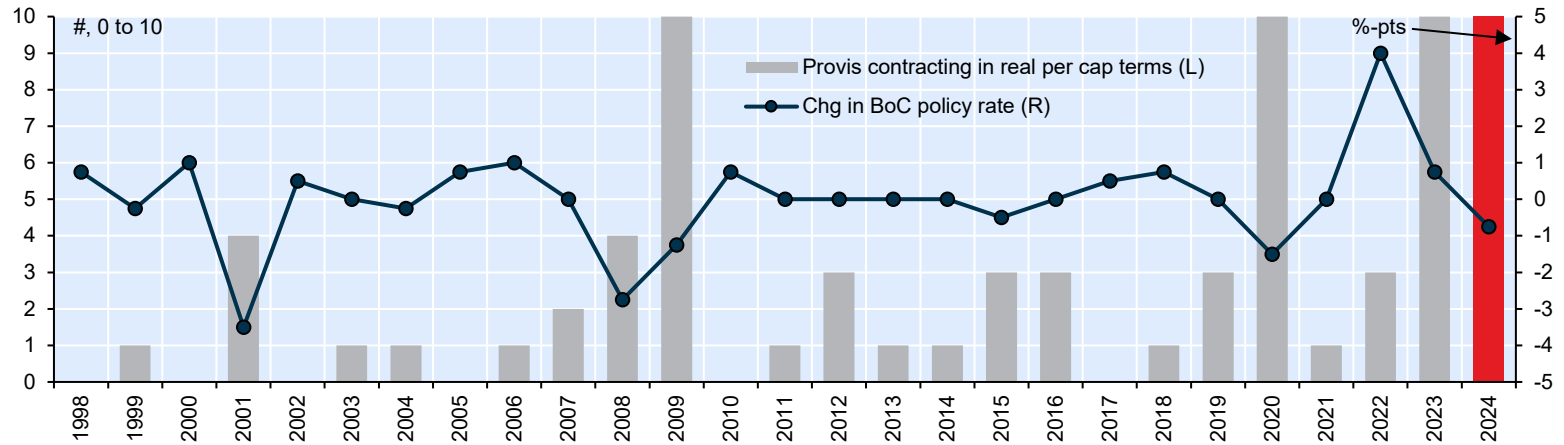


Source: NBF, StatCan | Note: Per capita based on population as at 1-Jul

For 2023, modest gains in real GDP in nine of ten provinces extended the pandemic recovery... at least a bit. After controlling for breakneck population growth, not a single province managed to gain ground in real per capita terms in 2023. That testifies to a loss of traction and not only for the most interest rate-sensitive of regions.

Chart 5: Not the first (nor the last) time all ten provinces suffer hit to real output per capita... with 2024 another tough year

Number of provinces seeing contraction in annual real per capita GDP & corresponding change in BoC overnight target rate

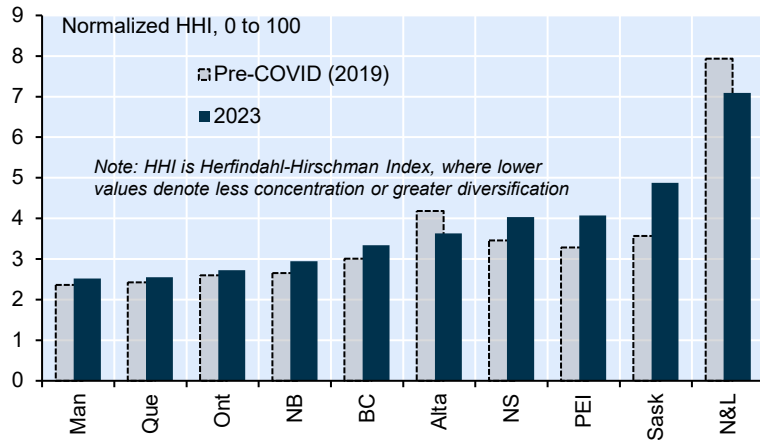


Source: NBF, StatCan, BBG | Note: Bars are count of provinces where real GDP declined in per capita terms; change in BoC policy rate based on end of year levels; 2024 is NBF forecast

Last year wasn't the first time all ten provinces lost ground on real GDP per capita. We saw this in the wake of the Global Financial Crisis and of course during the peak of the pandemic. Nor will this be the last such instance. As it stands, we fear real GDP growth will again fail to keep up to population growth in all provinces during 2024.

Chart 6: Using HHI, Manitoba & Quebec most diversified

Economic concentration (proxied by HHI): 2023 vs. pre-COVID

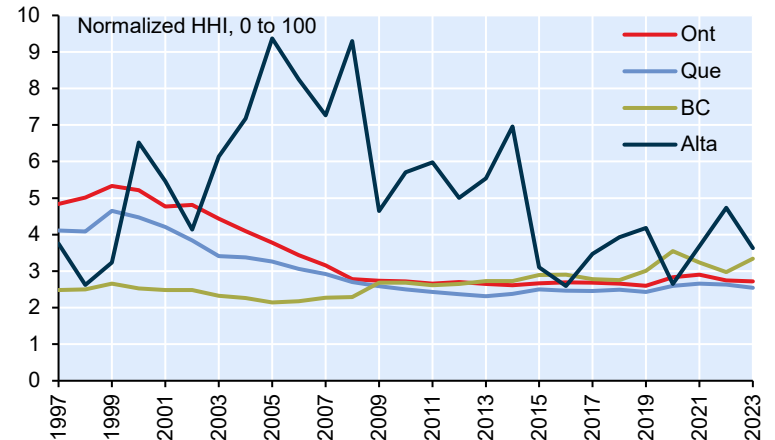


Source: NBF, StatCan

When it comes to economic diversification (or concentration), fresh Herfindahl-Hirschman Index values suggest Manitoba and Quebec are the two most diversified provinces in Canada. The more natural resource-levered have tended to be less diversified, although Alberta for one has improved its diversification over time.

Chart 7: Measuring economic diversification over time

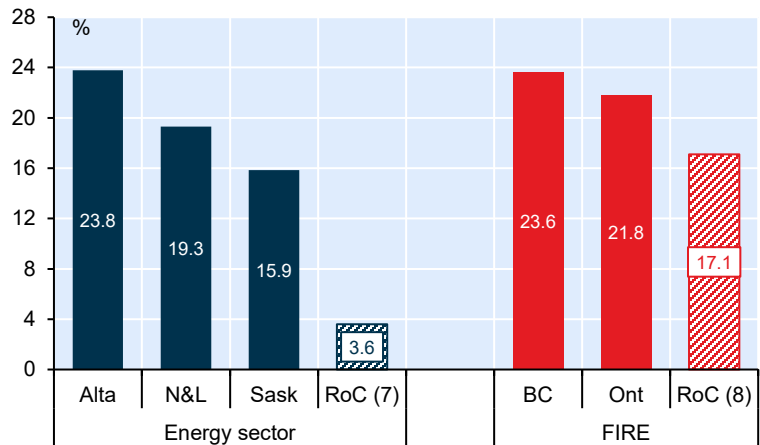
Economic concentration (proxied by HHI): Four largest provinces



Source: NBF, StatCan

Chart 8: Notable industry concentrations remain

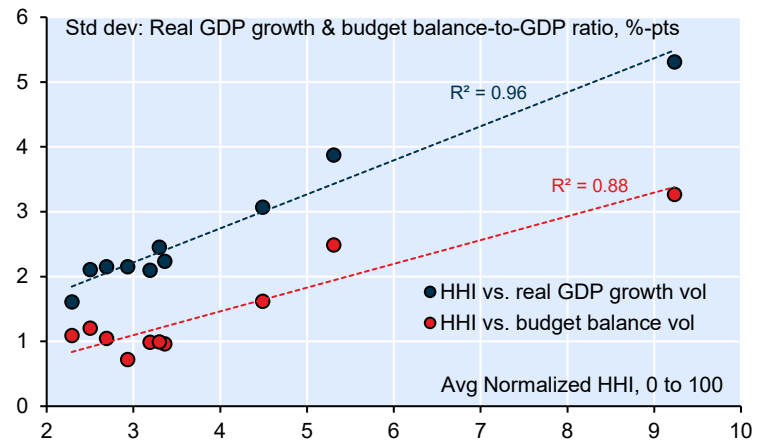
Share of provincial GDP by select industries/regions: 2023



Source: NBF, StatCan | Note: Rest of Canada is simple average of remaining provinces

Chart 9: Concentration can mean economic/fiscal volatility

Economic concentration (proxied by HHI) vs. economic/budgetary volatility



Source: NBF, StatCan | Note: Based on 25Y period from 1999-2023

Given restrictive monetary policy, interest rate-sensitive sectors like finance, insurance and real estate remain under the microscope. Fun or is it worrying fact? Real estate was a top-3 industry in each and every province in 2023. We'd note that economic concentration has tended to go hand-in-hand with economic volatility. Going one step further, you can likewise find a clear link between economic concentration and fiscal volatility, which can in turn inform provincial bond valuations.

Table: Providing a more detailed look at provincial industry exposure/economic concentration

Share of provincial GDP by industry, ranking industries from most to least important & highlighting relative concentration/noted exposures: 2023 (%)

Prov >	BC	Alta	Sask	Man	Ont	Que	NB	NS	PEI	N&L	
Special agg.	Goods	26.1	39.0	48.0	27.7	23.1	27.7	25.5	18.9	28.0	41.6
	Service	74.0	61.0	52.0	72.3	76.9	72.3	74.5	81.1	72.0	58.4
	Ind prod	13.9	29.3	32.1	16.9	14.4	18.8	15.6	9.5	15.0	32.6
	ICT	4.6	2.8	2.1	2.7	6.5	5.2	3.3	4.3	2.6	2.6
	Energy	6.8	23.8	15.9	5.7	2.3	3.3	5.9	1.7	1.0	19.3
Industry rank, ordered by each province (based on NAICS codes 11-91)	#1	Real est 17.7	Mng,O&G 18.4	Mng,O&G 22.5	Real est 13.6	Real est 12.9	Mfg 13.6	Real est 13.5	Real est 17.5	Real est 14.9	Mng,O&G 26.9
	#2	Const 10.3	Real est 11.5	Ag,for,fish 9.2	Mfg 10.9	Mfg 11.2	Real est 10.8	Pub admin 11.8	Pub admin 13.1	Mfg 13.6	Real est 9.9
	#3	Health 7.5	Mfg 8.3	Real est 8.8	Health 9.5	Fin,ins 8.9	Health 8.7	Mfg 10.7	Health 10.3	Pub admin 12.3	Health 9.0
	#4	Prof,sci,tch 7.3	Const 8.1	Const 6.9	Pub admin 8.7	Prof,sci,tch 8.4	Pub admin 7.9	Health 9.7	Mfg 7.1	Health 9.7	Pub admin 8.5
	#5	Mfg 6.2	Health 6.6	Mfg 6.9	Trans,ware 6.6	Const 7.9	Const 7.7	Const 6.9	Const 7.0	Const 7.5	Const 8.0
	#6	Pub admin 5.9	Whole 5.7	Whole 6.4	Const 6.1	Pub admin 7.6	Prof,sci,tch 7.1	Retail 6.3	Retail 6.7	Retail 6.7	Retail 5.6
	#7	Retail 5.4	Trans,ware 5.6	Health 6.3	Retail 5.9	Whole 7.0	Edu 5.9	Edu 5.8	Edu 6.6	Edu 6.1	Edu 5.6
	#8	Mng,O&G 5.4	Prof,sci,tch 5.3	Pub admin 5.8	Edu 5.6	Health 6.9	Whole 5.8	Fin,ins 5.3	Fin,ins 5.3	Ag,for,fish 5.7	Prof,sci,tch 4.1
	#9	Fin,ins 5.4	Pub admin 5.2	Trans,ware 4.3	Fin,ins 5.3	Edu 5.4	Fin,ins 5.8	Trans,ware 4.8	Prof,sci,tch 5.2	Fin,ins 4.2	Mfg 3.3
	#10	Trans,ware 4.9	Retail 4.5	Edu 4.3	Ag,for,fish 5.0	Retail 4.5	Retail 5.7	Utilities 4.1	Trans,ware 3.6	Prof,sci,tch 3.4	Trans,ware 3.2
	#11	Edu 4.8	Fin,ins 4.0	Retail 4.3	Whole 5.0	Trans,ware 3.9	Trans,ware 4.8	Whole 3.6	Whole 3.4	Accom,food 3.2	Fin,ins 3.1
	#12	Whole 3.9	Edu 3.8	Fin,ins 3.4	Prof,sci,tch 3.6	Info,cult 3.6	Utilities 2.8	Prof,sci,tch 3.5	Info,cult 2.8	Trans,ware 3.0	Whole 2.5
	#13	Info,cult 2.9	Admin 2.4	Prof,sci,tch 2.6	Utilities 3.4	Admin 3.2	Info,cult 2.6	Admin 3.3	Ag,for,fish 2.5	Whole 2.1	Utilities 2.3
	#14	Accom,food 2.8	Utilities 2.2	Utilities 2.6	Info,cult 2.3	Oth serv 1.9	Admin 2.5	Ag,for,fish 3.2	Accom,food 2.2	Oth serv 1.9	Info,cult 2.0
	#15	Admin 2.4	Oth serv 2.0	Oth serv 1.5	Mng,O&G 2.3	Utilities 1.9	Oth serv 2.2	Info,cult 2.6	Oth serv 1.9	Info,cult 1.9	Accom,food 1.8
	#16	Oth serv 2.2	Ag,for,fish 2.0	Info,cult 1.4	Oth serv 2.0	Accom,food 1.8	Mng,O&G 2.1	Oth serv 1.9	Admin 1.9	Admin 1.7	Oth serv 1.6
	#17	Ag,for,fish 2.1	Accom,food 2.0	Accom,food 1.3	Accom,food 1.8	Ag,for,fish 1.1	Accom,food 2.0	Accom,food 1.9	Utilities 1.8	Utilities 1.2	Admin 1.4
	#18	Utilities 2.0	Info,cult 1.8	Admin 1.0	Admin 1.6	Mng,O&G 1.0	Ag,for,fish 1.5	Mng,O&G 0.6	Arts,rec 0.5	Arts,rec 0.9	Ag,for,fish 1.1
	#19	Arts,rec 0.7	Arts,rec 0.5	Arts,rec 0.6	Arts,rec 0.9	Arts,rec 0.9	Arts,rec 0.6	Arts,rec 0.4	Mng,O&G 0.4	Mng,O&G 0.0	Arts,rec 0.3
	#20	Mgmt 0.1	Mgmt 0.1	Mgmt 0.0	Mgmt 0.1	Mgmt 0.1	Mgmt 0.1	Mgmt 0.1	Mgmt 0.0	Mgmt 0.0	Mgmt 0.0
Concentration	Top 3	35.5	38.2	40.5	34.0	33.0	33.1	36.0	40.9	40.8	45.8
	Top 5	49.0	52.9	54.2	49.3	49.3	48.7	52.5	55.0	57.9	62.3
	Top 10	76.1	79.2	81.3	77.2	80.7	78.9	79.0	82.4	84.0	84.0
	HHI	8.2	8.4	9.6	7.4	7.6	7.4	7.8	8.8	8.9	11.7
Select exposures (Top 3)	Ag,for,fish			✓							
	Mng,O&G		✓	✓							✓
	Const	✓									
	Mfg		✓		✓	✓	✓	✓		✓	
	Fin,ins					✓	✓				
	Real est	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Health	✓			✓		✓		✓		✓
	Public admin							✓	✓	✓	

Source: NBF, StatCan | Note: For spacing purposes, we have used shortforms for 20 two-digit NAICS industry classifications; refer to StatCan for complete NAICS industry details; re. 'Concentration', Top 3 to Top 10 figures refer to the combined weight of the largest industries in each province; HHI refers to Herfindahl-Hirschman Index value for 2022, where lower scores imply less economic concentration (i.e., greater diversification across industries) & larger scores imply more economic concentration (i.e., less diversification across industries); re. 'Select exposures', checkmarks are meant to identify specific industries comprising a top 3 share of provincial GDP in 2023

If you want to study economic diversification (or concentration) in greater detail, the above table details each province's relative economic composition, ranking each of the twenty main industry groups by GDP share. HHI values and some additional visual guides are used to highlight relative diversification and key industry exposures.



Economics and Strategy

Montreal Office

514-879-2529

Stéfane Marion

Chief Economist and Strategist
stefane.marion@nbc.ca

Kyle Dahms

Economist
kyle.dahms@nbc.ca

Alexandra Ducharme

Economist
alexandra.ducharme@nbc.ca

Matthieu Arseneau

Deputy Chief Economist
matthieu.arseneau@nbc.ca

Daren King, CFA

Economist
daren.king@nbc.ca

Angelo Katsoras

Geopolitical Analyst
angelo.katsoras@nbc.ca

Jocelyn Paquet

Economist
jocelyn.paquet@nbc.ca

Toronto Office

416-869-8598

Warren Lovely

Chief Rates and Public Sector Strategist
warren.lovely@nbc.ca

Taylor Schleich

Rates Strategist
taylor.schleich@nbc.ca

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