

S&P Global

Market Intelligence

Economics Consulting | Economic Impact Analysis

The Independent Lubricant Manufacturing Industry's contributions to the US, Canadian and Mexican economies

An economic impact study conducted for



Final report – August 2025

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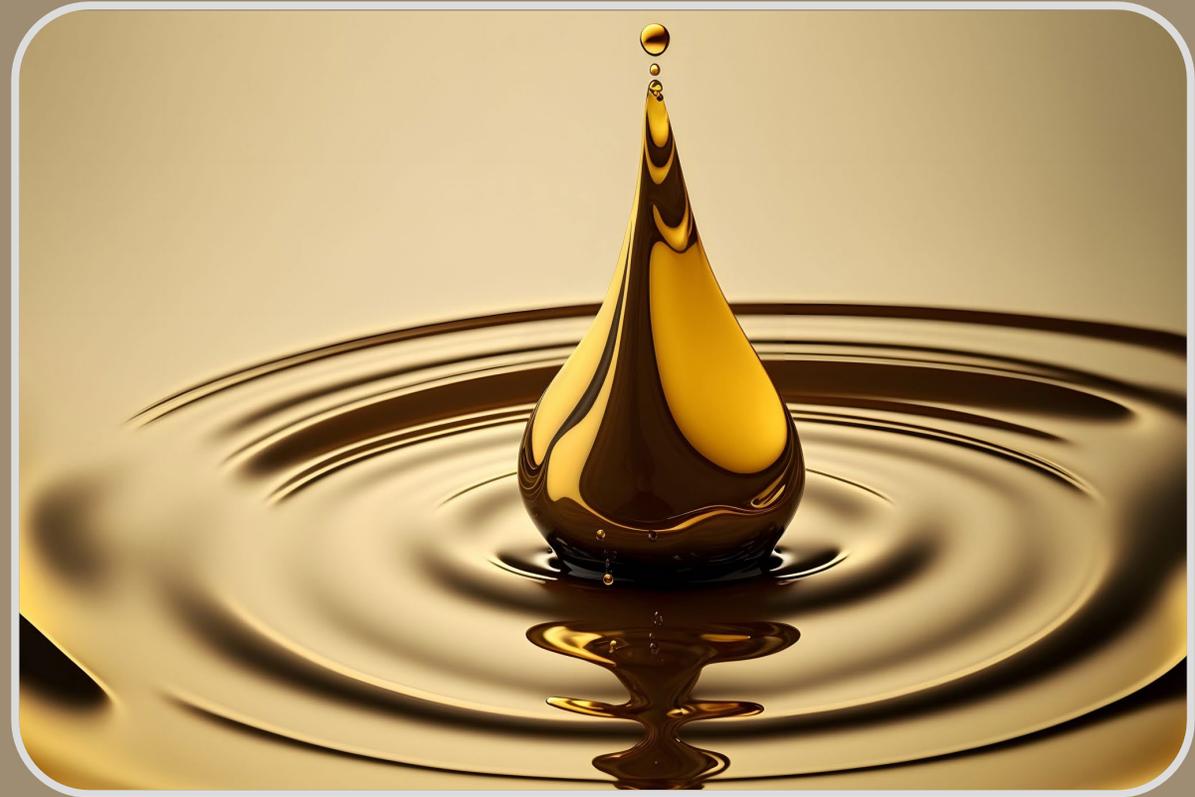
Principal Consultant, Economics Consulting



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Key Takeaways



The economic contributions of the Independent Lubricant Manufacturers (“the Independents”) in North America

Key Takeaways

While the overall volume demand for lubricants in North America contracted from 2018 through 2024, the Independents’ shares and volumes increased

- Overall volume demand dropped 11.7% from 9,301 Kt to 8,252 Kt
- The Independents’ volume **increased 3.7%** from 2,521 Kt to 2,615 Kt

In 2024, the Independents stimulated \$15.2 billion of sales activity and generated \$7.8 billion in regional gross domestic product (GDP) across North America

This helped support over 25,000 jobs in 2024 that paid \$2.6 billion in wages

- The average annual wage supported by the Independents’ economic activity, inclusive of extended supply chain and follow-on effects, was almost \$104,000
- That was over 37% higher than the average US annual wage and 53% higher than the North America combined average

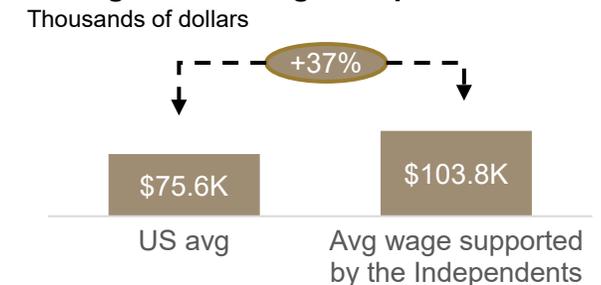
The Independents North American volumes
Kt/year



The Independents’ contribution to GDP



Average annual wage comparison



The economic contributions stimulated by the Independents – Overall

Combined contributions from operations, supply chain and re-spending of wages in North America

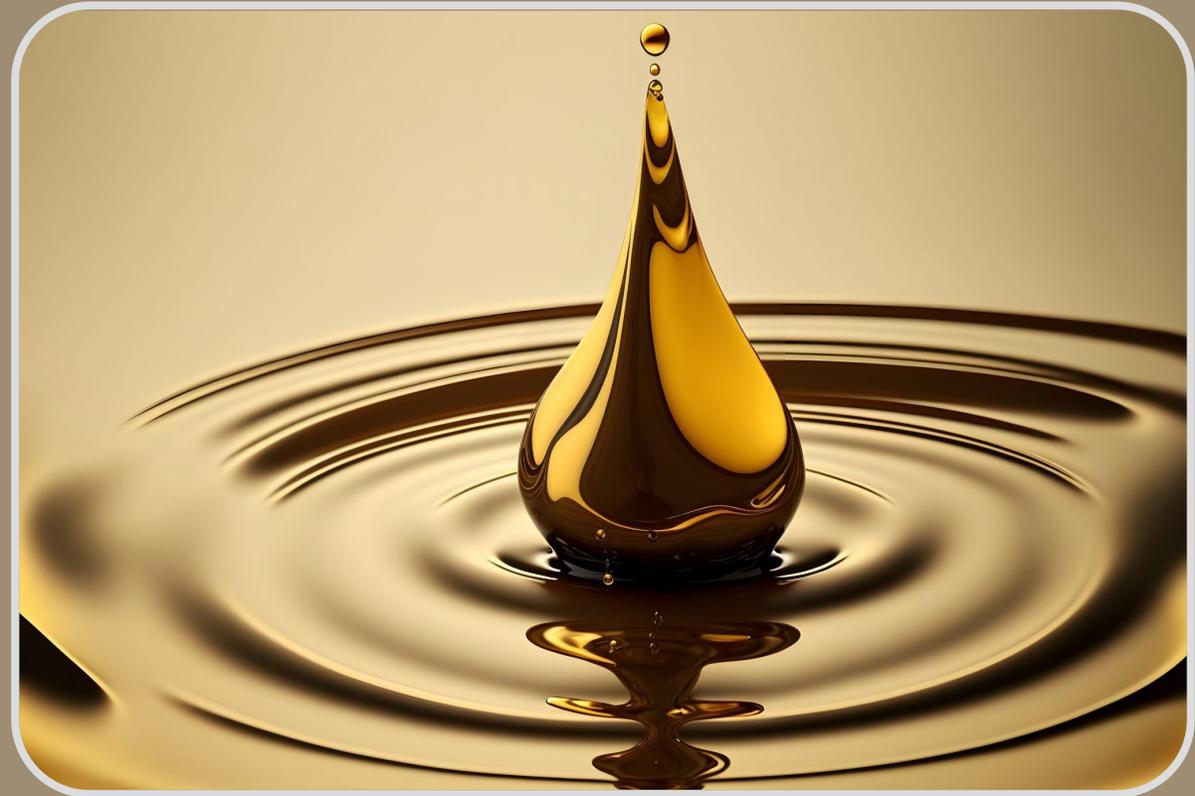
	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
--	---	--	--	---

United States	\$13,338M	\$6,699M	21,546	\$2,336M
Canada	\$1,118M	\$649M	2,470	\$192M
Mexico	\$731M	\$445M	1,023	\$72M
North America	\$15,187M	\$7,792M	25,040	\$2,599M

Note: an overview of the economic impact analysis methodology is provided in Appendix C

Source: S&P Global Market Intelligence

Overview of the overall North American lubricant market, 2018 — 2024

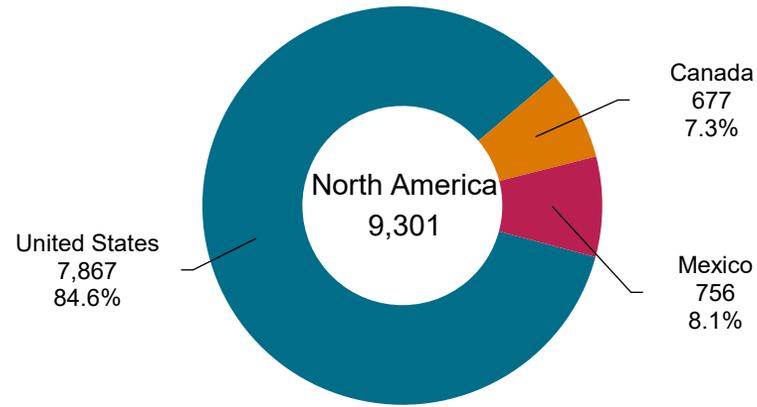


North American lubricant volume demand decreased 11.3% from 2018 to 2024

Regional market shares and the distribution across product sectors remained relatively stable

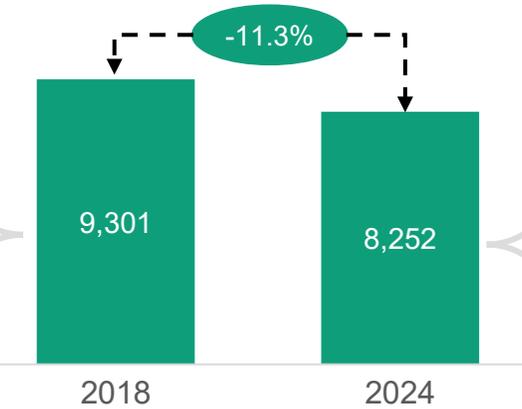
Lubricant demand by region, 2018

Kt/year



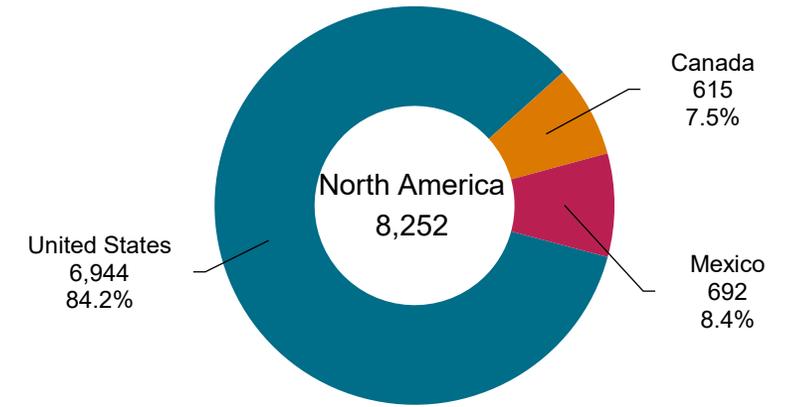
North American lubricant demand

Kt/year



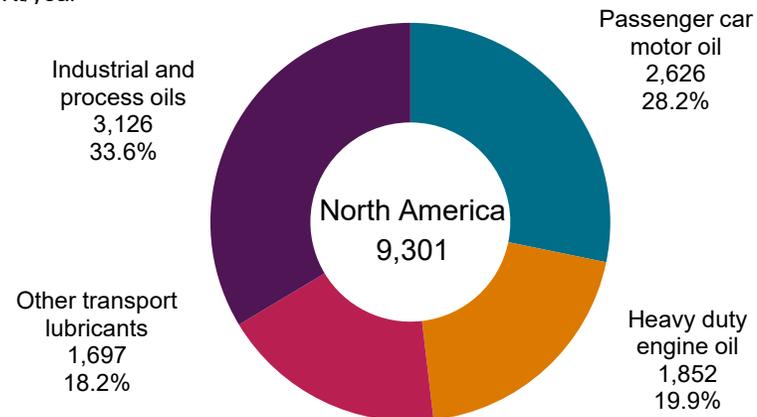
Lubricant demand by region, 2024

Kt/year



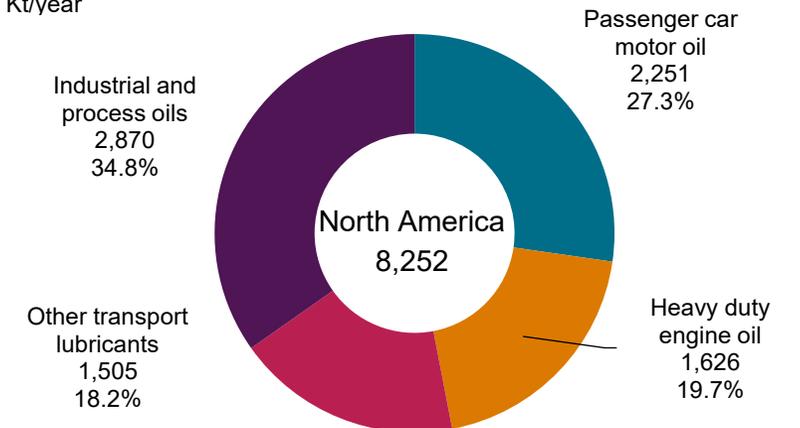
Lubricant demand by sector, 2018¹

Kt/year



Lubricant demand by sector, 2024

Kt/year



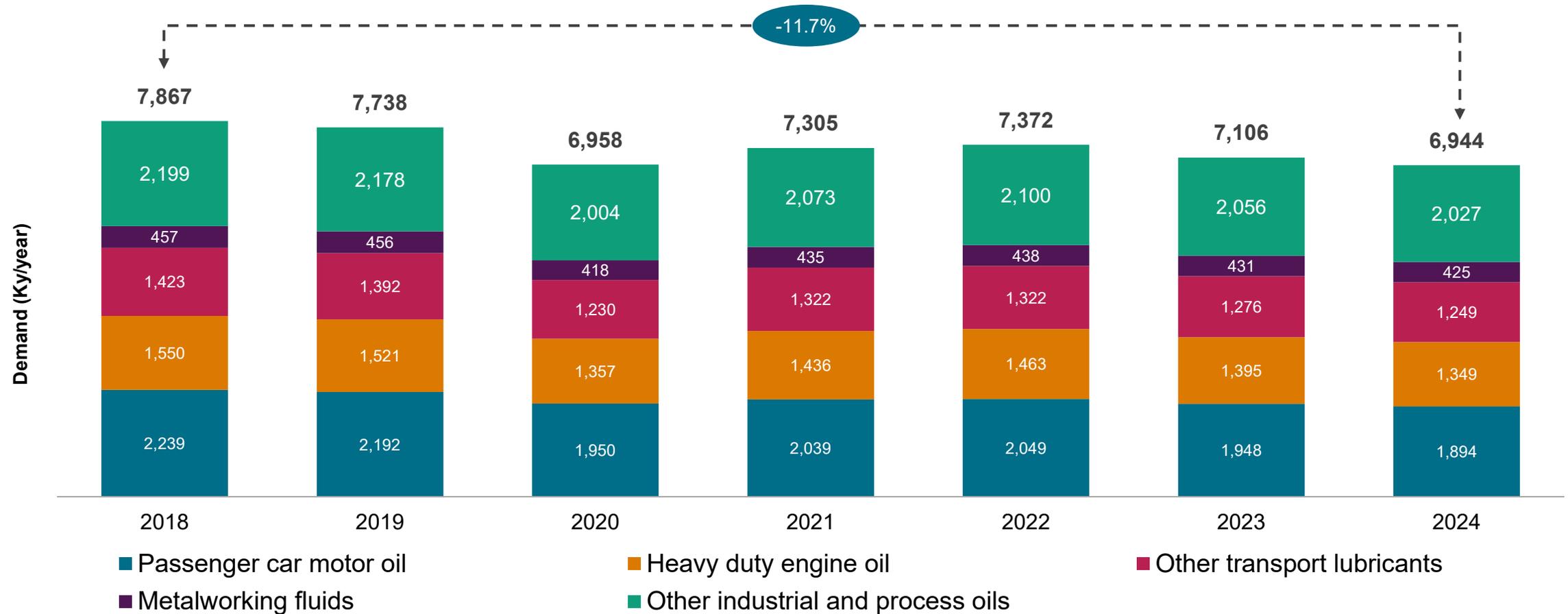
Source: S&P Global Commodity Insights

1. Descriptions of the 20 product subsectors included in the analysis are provided in Appendix A

Lubricant demand by product sector: United States

Lubricant Demand: United States

Kt/year

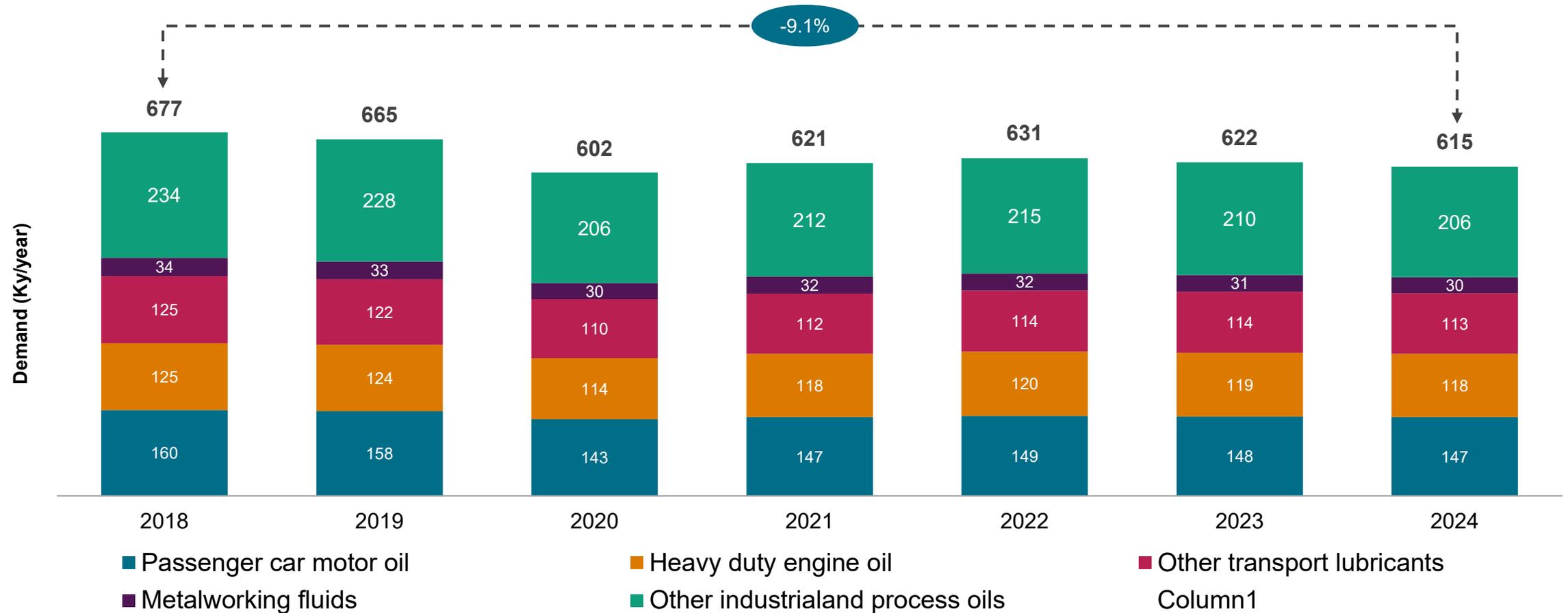


Source: S&P Global Commodity Insights

Lubricant demand by product sector: Canada

Lubricant Demand: Canada

Kt/year

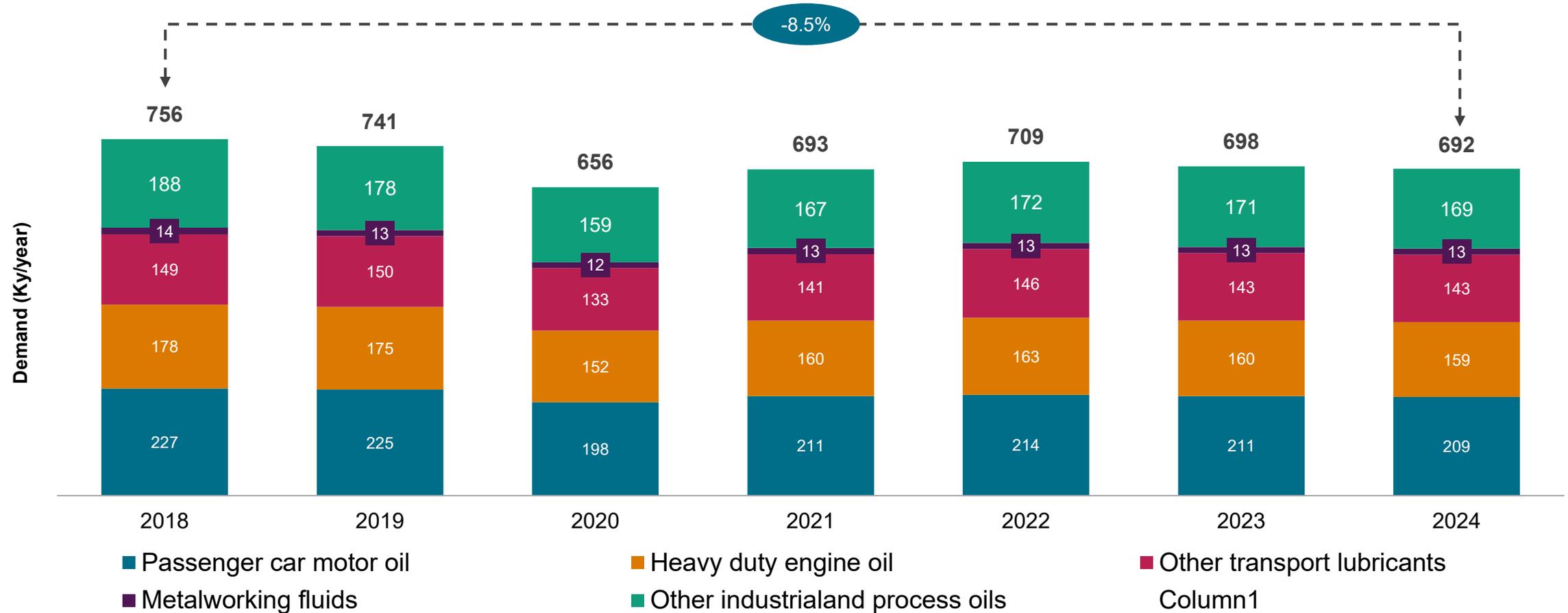


Source: S&P Global Commodity Insights

Lubricant demand by product sector: Mexico

Lubricant Demand: Mexico

Kt/year



Source: S&P Global Commodity Insights

The Independents' share of the North American lubricant market



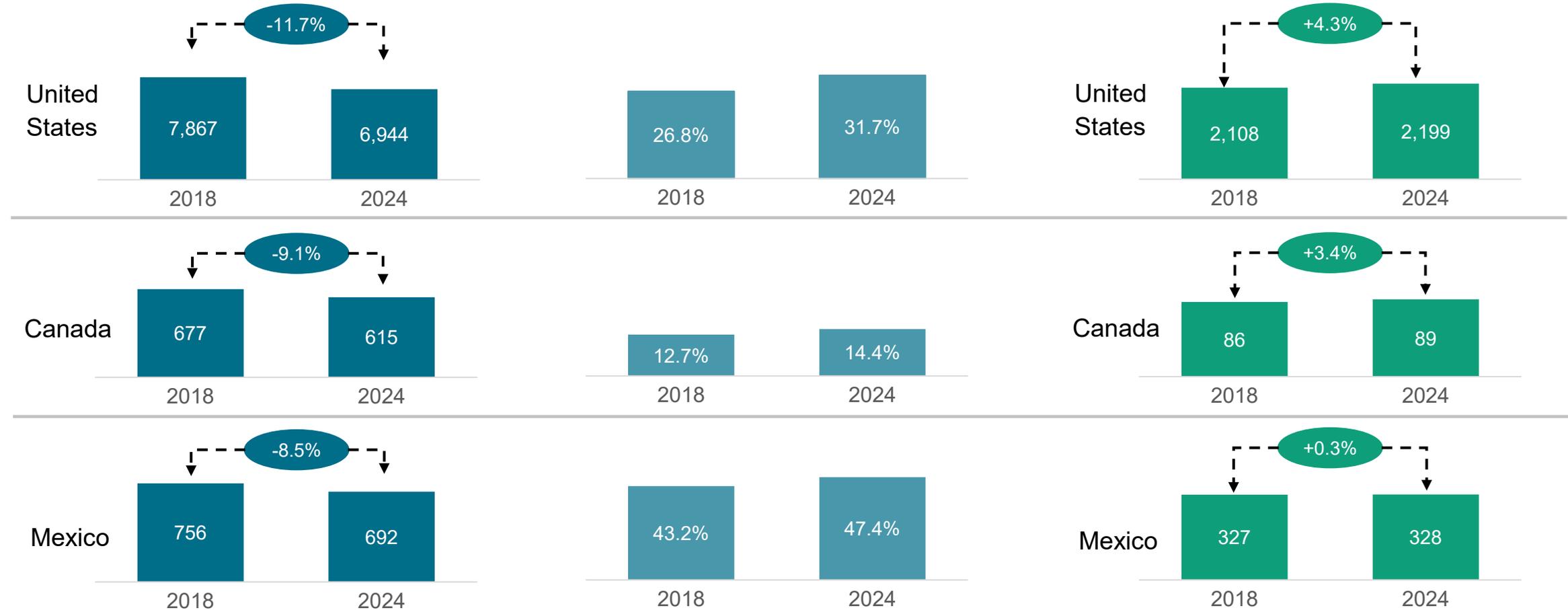
the Independents' 2024 North American volumes were up 3.7% from 2018 levels

Overall, North American lubricant volumes were down 11.3% over the same period

North American lubricant volumes (Kt/y)
-11.3% across the region

The Independents' share of the North American lubricant market

The Independents' volumes (Kt/y)
+3.7% across North America

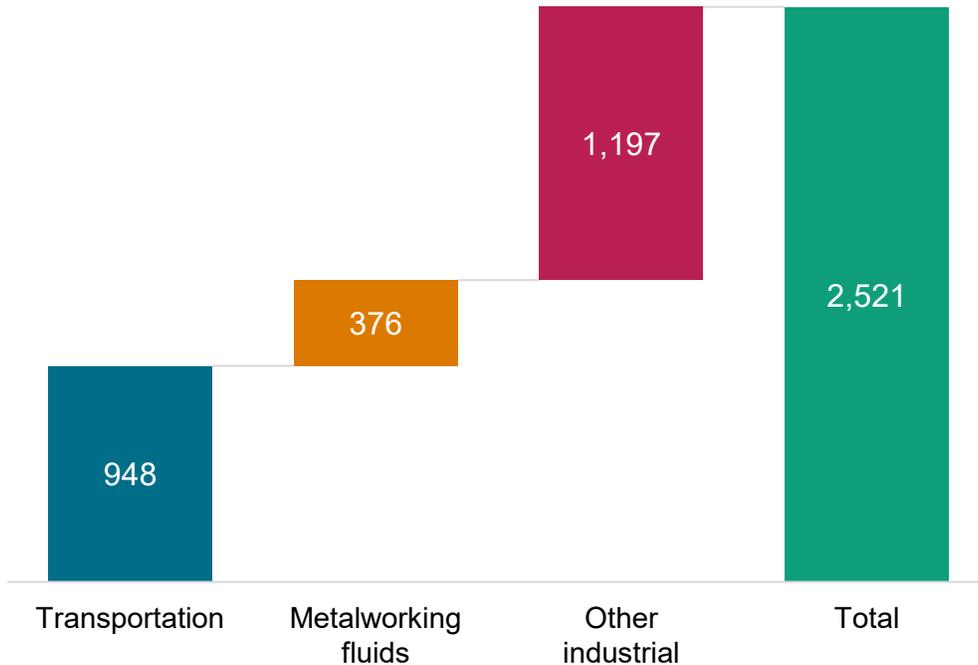


Sources: S&P Global Commodity Insights, S&P Global Market Intelligence

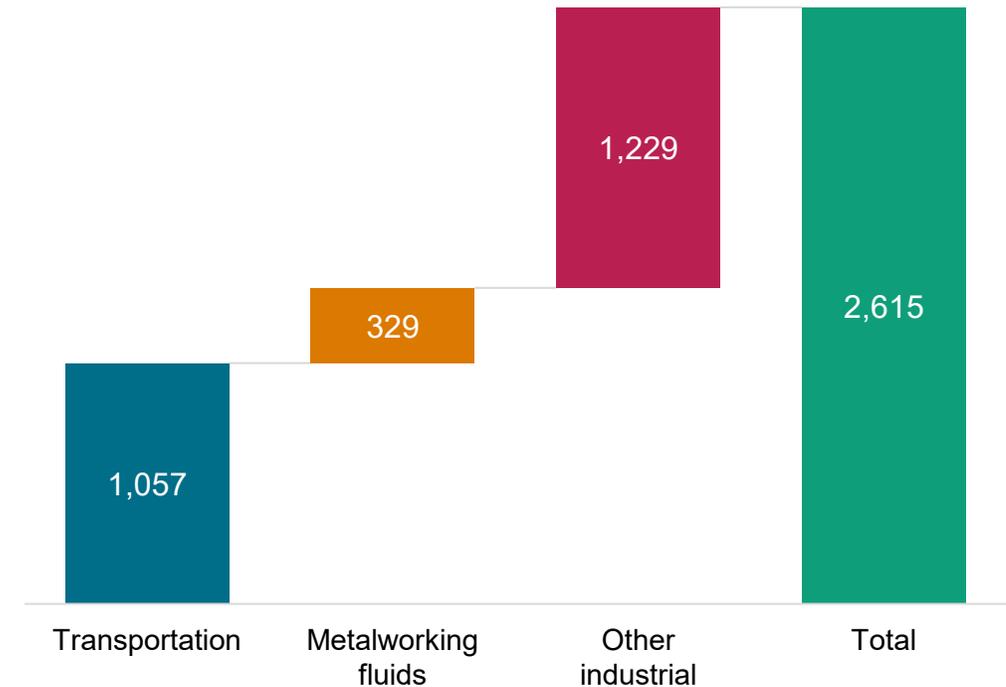
North America: the Independents' volumes by product class, 2018 and 2024

Volumes up 3.7%

The Independents' lubricant volumes, 2018 (Kt/y)



The Independents' lubricant volumes, 2024 (Kt/y)

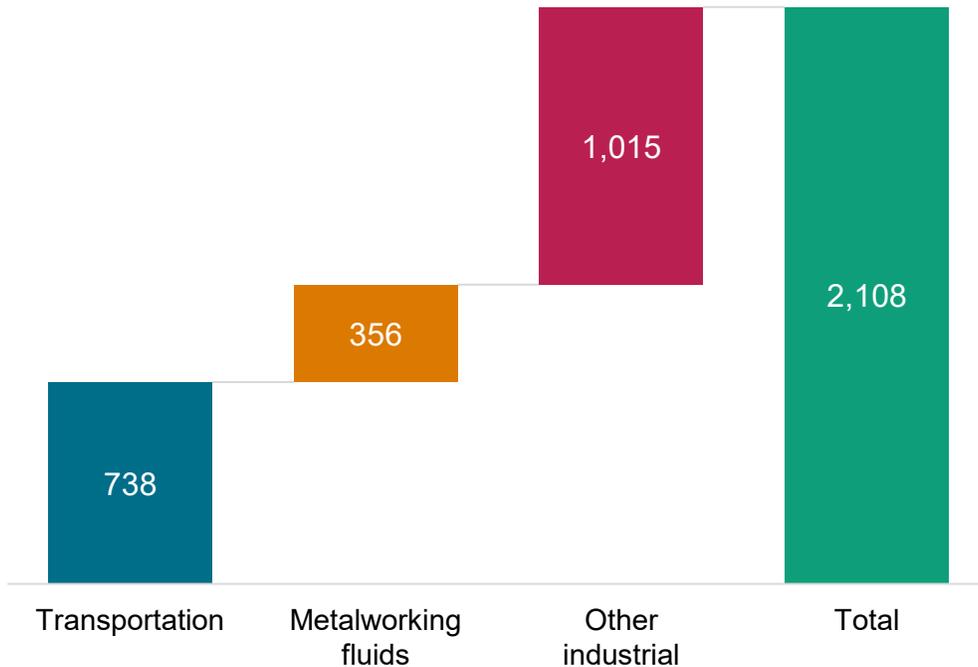


Source: S&P Global Market Intelligence

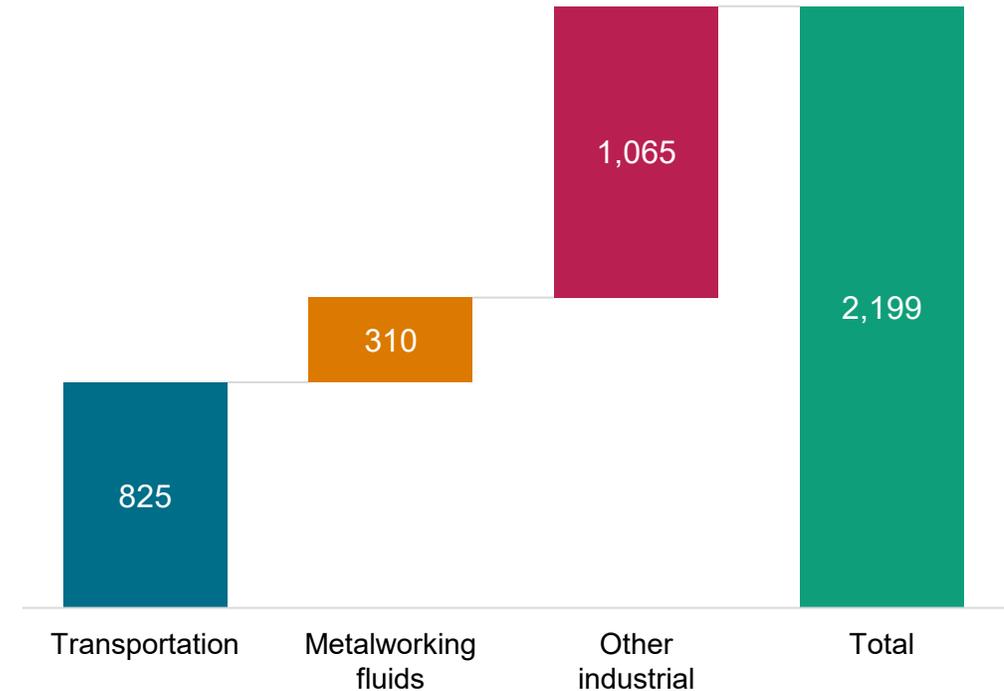
United States: the Independents' volumes by product class, 2018 and 2024

Volumes up 4.3%

The Independents' lubricant volumes, 2018 (Kt/y)



The Independents' lubricant volumes, 2024 (Kt/y)

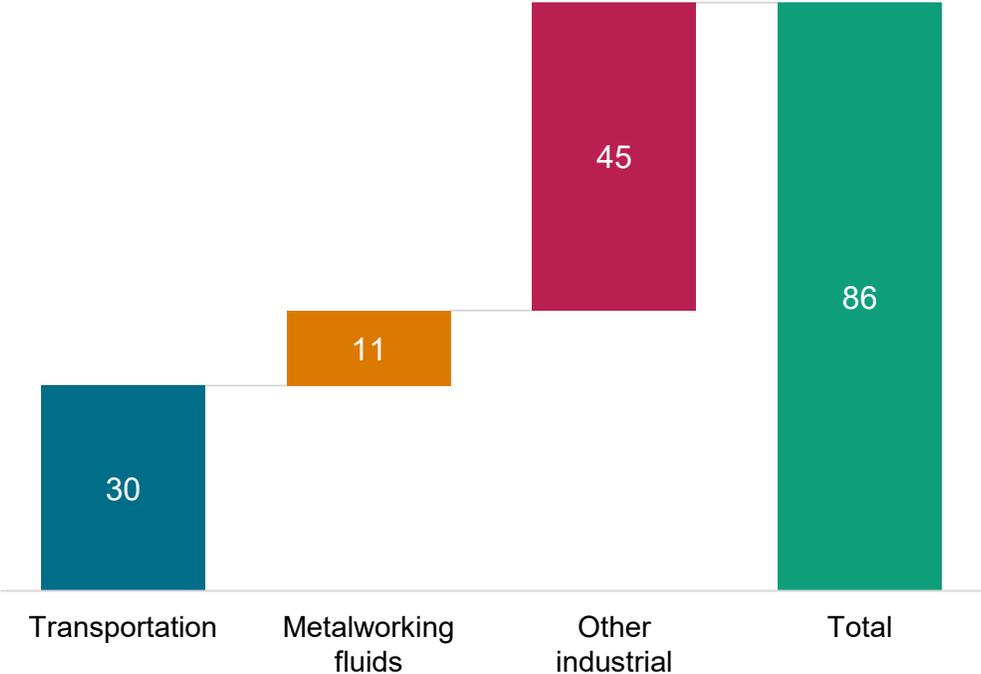


Source: S&P Global Market Intelligence

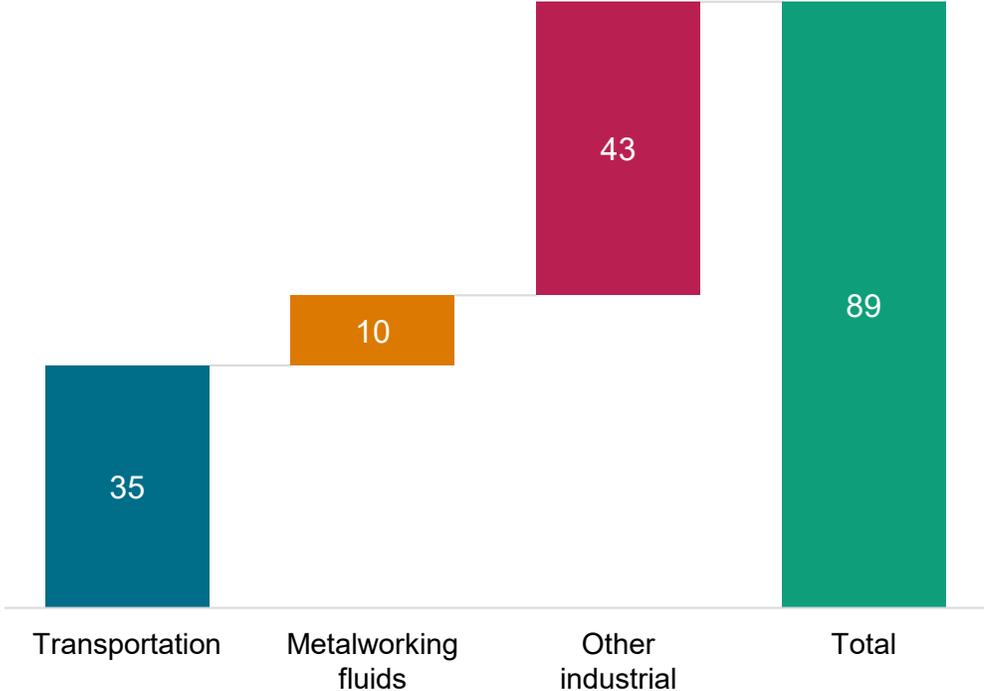
Canada: the Independents' volumes by product class, 2018 and 2024

Volumes up 3.4%

The Independents' lubricant volumes, 2018 (Kt/y)



The Independents' lubricant volumes, 2024 (Kt/y)

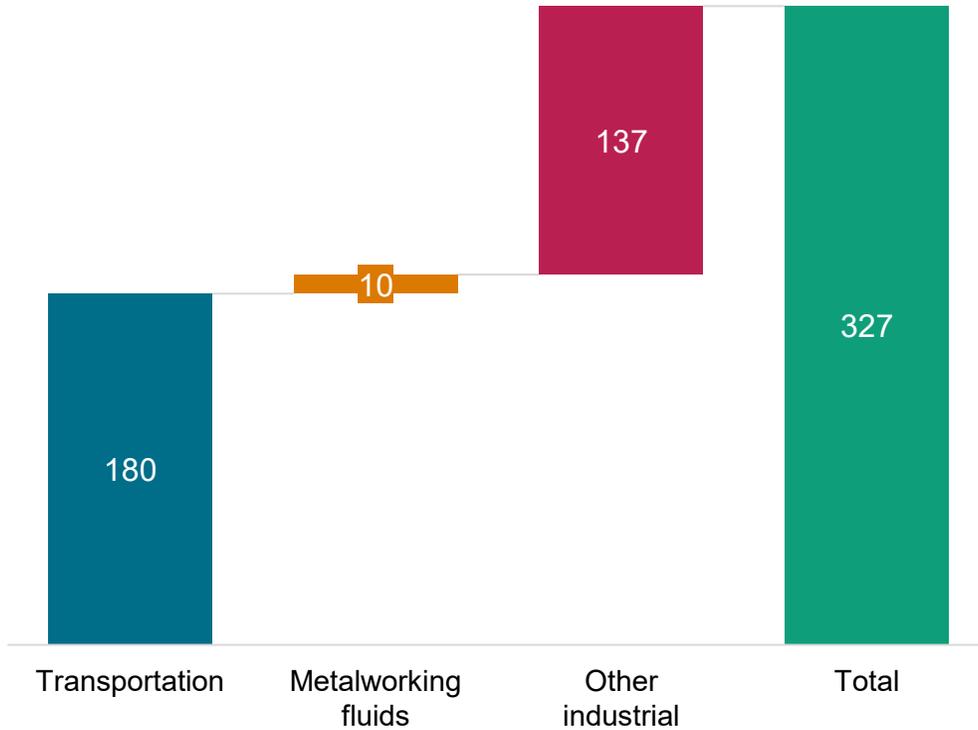


Source: S&P Global Market Intelligence

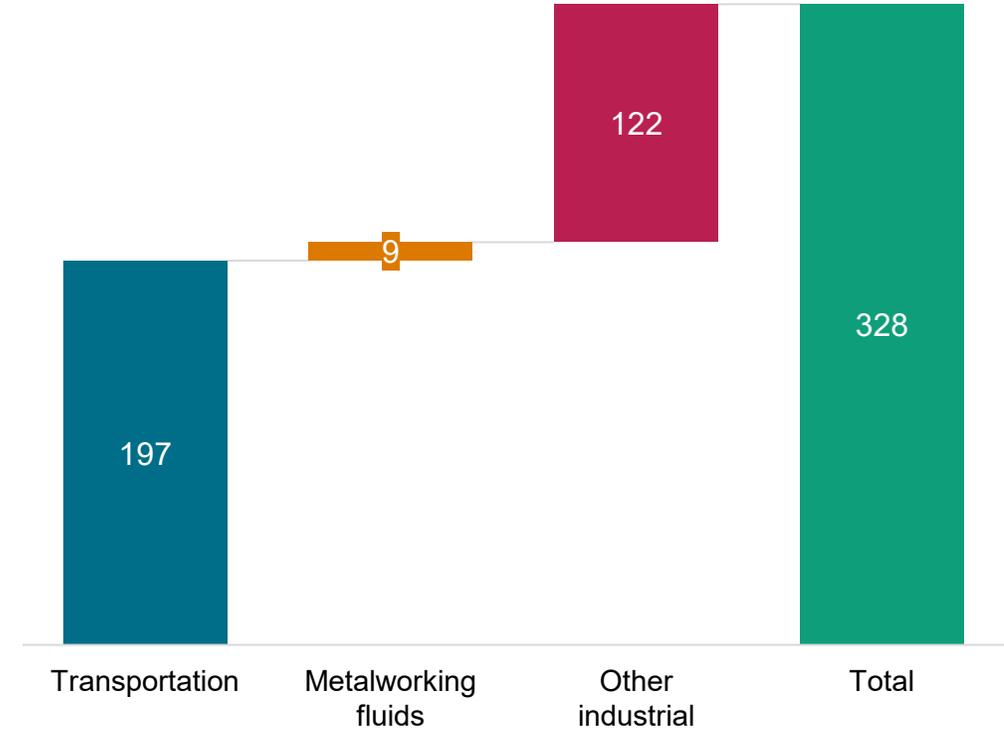
Mexico: the Independents' volumes by product class, 2018 and 2024

Volumes up 0.3%

The Independents' lubricant volumes, 2018 (Kt/y)

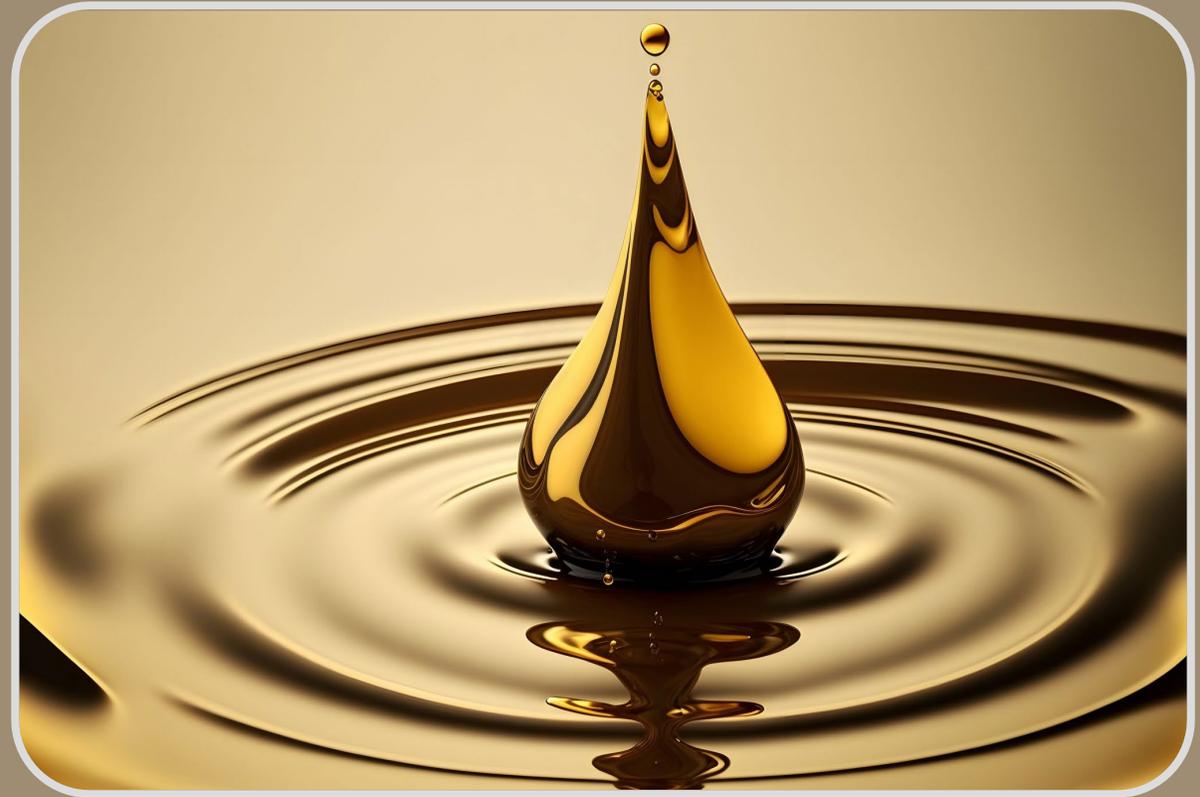


The Independents' lubricant volumes, 2024 (Kt/y)



Source: S&P Global Market Intelligence

Economic impact of the Independents in North America



The economic contributions stimulated by the Independents – Overall

Combined contributions from operations, supply chain and re-spending of wages in North America

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
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United States	\$13,338M	\$6,699M	21,546	\$2,336M
Canada	\$1,118M	\$649M	2,470	\$192M
Mexico	\$731M	\$445M	1,023	\$72M
North America	\$15,187M	\$7,792M	25,040	\$2,599M

Source: S&P Global Market Intelligence

The contributions stimulated by the Independents in the North American economy

Combined contributions from operations, supply chain and re-spending of wages

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
1  The Independents	\$7,137M	\$3,871M	3,720	\$1,077M
2 	\$6,266M	\$2,910M	14,862	\$1,121M
3 Extended Supply Chain				
4  Induced impacts	\$1,783M	\$1,011M	6,458	\$401M
Σ Total contributions	\$15,187M	\$7,792M	25,040	\$2,599M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the “Supply Chain” category

Source: S&P Global Market Intelligence

The contributions stimulated by the Independents in the United States economy

Combined contributions from operations, supply chain and re-spending of wages

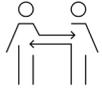
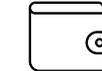
	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
1  The Independents	\$6,164M	\$3,199M	3,033	\$961M
2 	\$5,544M	\$2,572M	12,701	\$1,003M
3 Extended Supply Chain				
4  Induced impacts	\$1,630M	\$928M	5,812	\$372M
Σ Total contributions	\$13,338M	\$6,699M	21,546	\$2,336M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the “Supply Chain” category

Source: S&P Global Market Intelligence

The contributions stimulated by the Independents in the Canadian economy

Combined contributions from operations, supply chain and re-spending of wages

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
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1	ILMA The Independents	\$558M	\$393M	434	\$74M
2		\$452M	\$197M	1,533	\$94M
3	Extended Supply Chain				
4	 Induced impacts	\$108M	\$58M	503	\$24M
Σ	Total contributions	\$1,118M	\$649M	2,470	\$192M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the “Supply Chain” category

Source: S&P Global Market Intelligence

The contributions stimulated by the Independents in the Mexican economy

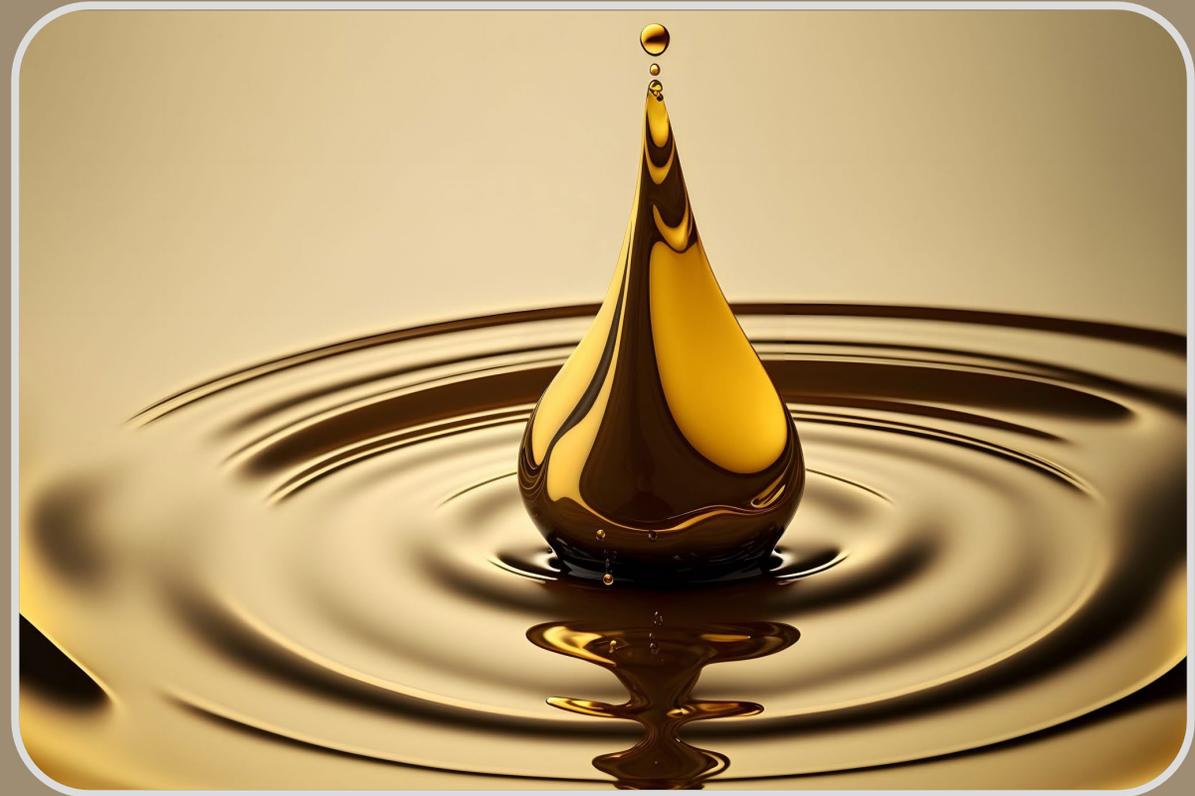
Combined contributions from operations, supply chain and re-spending of wages

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
1  The Independents	\$416M	\$279M	253	\$42M
2 	\$270M	\$141M	628	\$24M
3 Extended Supply Chain				
4  Induced impacts	\$45M	\$25M	143	\$5M
Σ Total contributions	\$731M	\$445M	1,023	\$72M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the “Supply Chain” category

Source: S&P Global Market Intelligence

Focus on the metalworking fluids subsector



The economic contributions stimulated by the Independents – Metalworking Fluids

Combined contributions from operations, supply chain and re-spending of wages in North America

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
--	---	--	--	---

United States	\$2,397M	\$1,204M	3,866	\$420M
Canada	\$177M	\$102M	397	\$31M
Mexico	\$38M	\$23M	65	\$4M
North America	\$2,612M	\$1,329M	4,328	\$454M

Source: S&P Global Market Intelligence

The Independents' economic contributions in North America: metalworking fluids

Combined contributions from operations, supply chain and re-spending of wages

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
1  The Independents	\$1,213M	\$648M	623	\$186M
2 	\$1,086M	\$503M	2,568	\$197M
3 Extended Supply Chain				
4  Induced impacts	\$314M	\$178M	1,136	\$71M
Σ Total contributions	\$2,612M	\$1,329M	4,328	\$454M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the "Supply Chain" category

Source: S&P Global Market Intelligence

The Independents' economic contributions in the United States: metalworking fluids

Combined contributions from operations, supply chain and re-spending of wages

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
1  The Independents	\$1,111M	\$577M	547	\$173M
2 	\$993M	\$461M	2,274	\$180M
3 Extended Supply Chain				
4  Induced impacts	\$293M	\$167M	1,045	\$67M
Σ Total contributions	\$2,397M	\$1,204M	3,866	\$420M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the "Supply Chain" category

Source: S&P Global Market Intelligence

The Independents' economic contributions in Canada: metalworking fluids

Combined contributions from operations, supply chain and re-spending of wages

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
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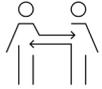
1	ILMA The Independents	\$86M	\$61M	67	\$11M
2		\$74M	\$32M	250	\$15M
3	Extended Supply Chain				
4	 Induced impacts	\$17M	\$9M	79	\$4M
Σ	Total contributions	\$177M	\$102M	397	\$31M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the "Supply Chain" category

Source: S&P Global Market Intelligence

The Independents' economic contributions in Mexico: metalworking fluids

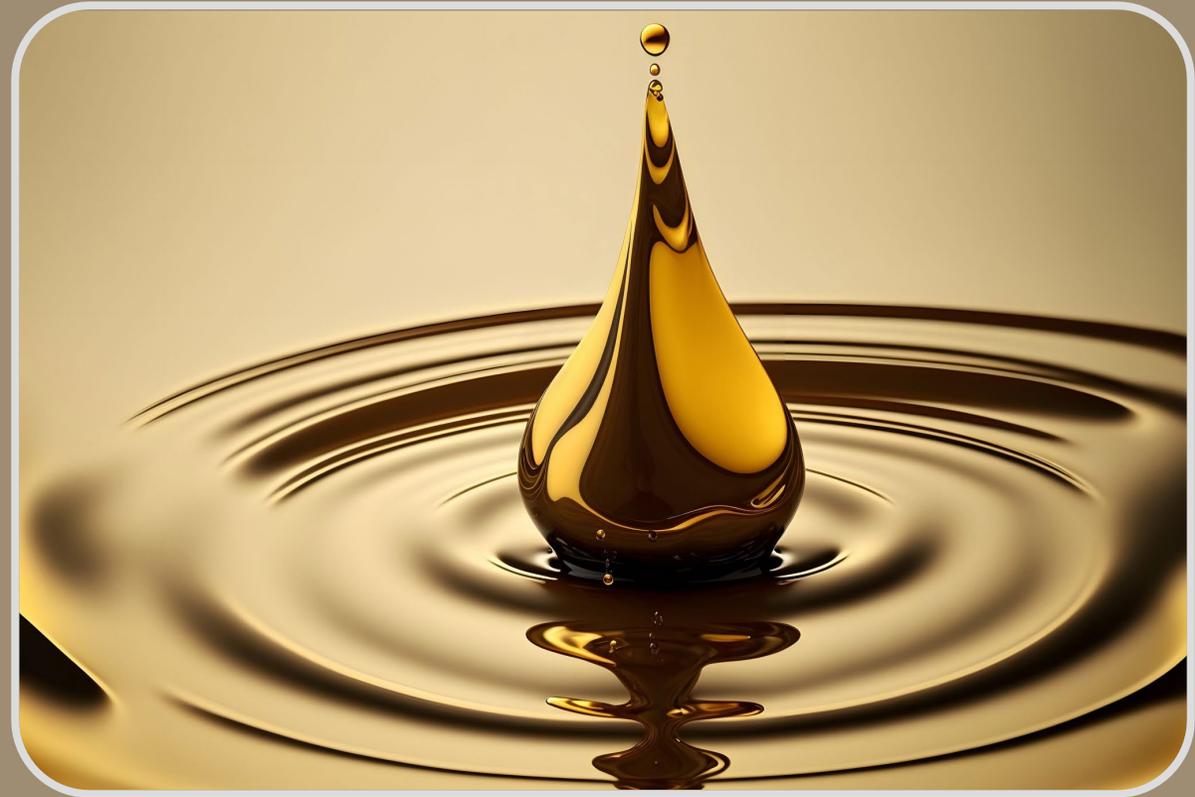
Combined contributions from operations, supply chain and re-spending of wages

	 Sales activity (economic output)	 Contribution to GDP (value added)	 Employment (jobs)	 Wages
1  The Independents	\$15M	\$10M	9	\$2M
2 	\$19M	\$10M	44	\$2M
3 Extended Supply Chain				
4  Induced impacts	\$4M	\$2M	12	\$0M
Σ Total contributions	\$38M	\$23M	65	\$4M

Note: To simplify the presentation of results, the direct supplier and extended supply chain were combined into the "Supply Chain" category

Source: S&P Global Market Intelligence

Appendix A: Lubricant product subsector descriptions



Lubricant product subsector descriptions

Lubricant	Description
Motor Oils	
Passenger car motor oil (PCMO)	Internal combustion engine oil used in light duty vehicles of up to 3.5 tons
Heavy duty engine oil (HDEO)	Internal combustion engine oil used in heavy duty vehicles of more than 3.5 tons
Other transport lubricants	
Auto gear oil	Lubricating oil used in manual transmission gearboxes, transfer cases (a gear box found in four-wheel and all-wheel-drive vehicles), axles, and differentials in automobiles, trucks, and other vehicles
Automatic transmission fluid (ATF)	Fluids for use in automatic transmissions; includes fluids used for CVTs (continuously variable transmissions), DCTs (dual clutch transmissions), and step-type automatic transmissions. Also includes power steering fluids
Aviation oil	Gas turbine engine oils, piston engine oils
Inland marine lubricants	Lubricants used in costal and inland navigation vessels and in power generators
Motorcycle oil	Includes 2-stroke and 4-stroke engine oils
Railroad oil	Railroad engine oils
Tractor oil	Includes oils used in agricultural vehicles and construction equipment. Also referred to as UTTOs (universal tractor & transmission oils) and STOUs (super tractor universal oils)
Other transport oils & unattributed	Includes stationery natural gas engine oils, brake fluids, shock absorber oils, oil-based coolants, and “other/unattributed” lubricants

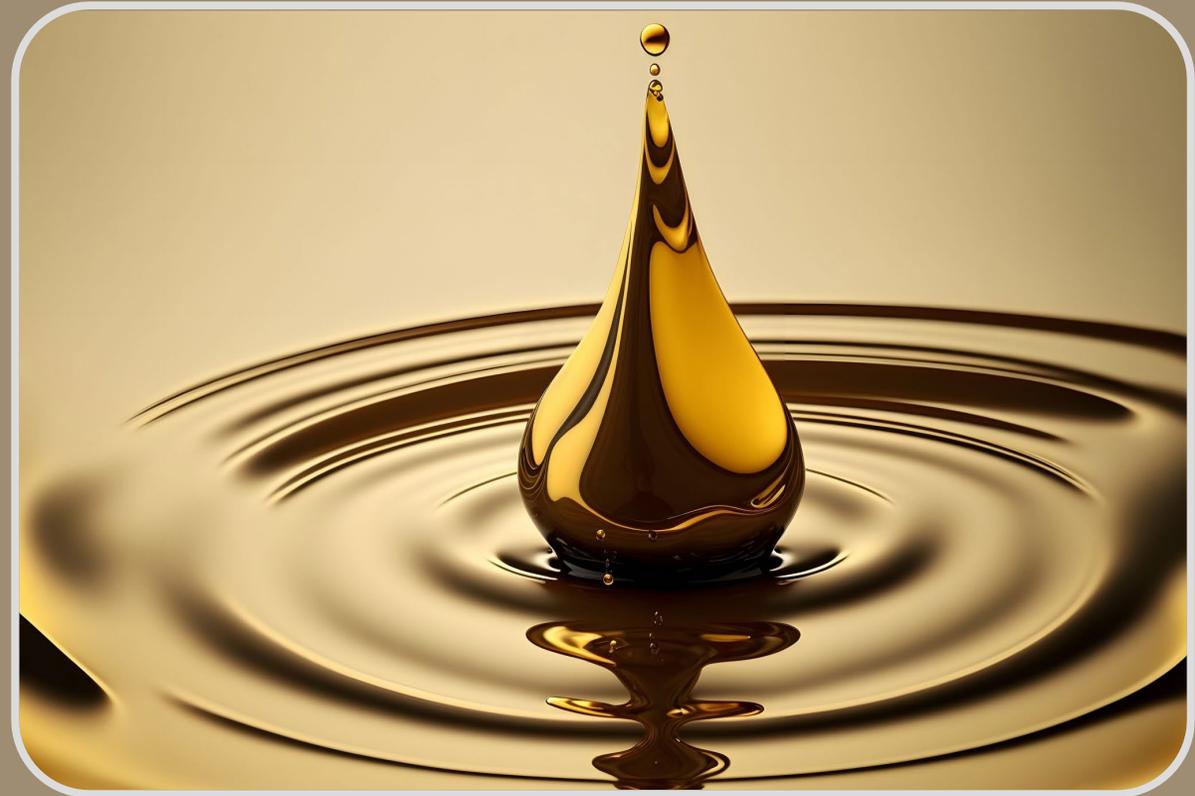
Source: S&P Global Commodity Insights

Lubricant product subsector descriptions (continued)

Lubricant	Description
Industrial and process oils	
Compressor oil	Lubricants used to cool, seal or lubricate internal components in compressed gas systems in factories and manufacturing
Grease	Includes greases for automotive and industrial applications
Hydraulic oil	Oils used in hydraulic pumps and filters in mobile and stationary hydraulic systems. Mobile applications include hydraulic pumps and systems in construction equipment, well service equipment, utility service boom trucks/bucket trucks and fork lifts. Includes oils used in hydraulic pumps, oil filters. Stationery applications include hydraulic systems in air compressors, circulating systems, cranes, gearboxes, industrial turbines, vacuum pumps. Includes chain oils used in these systems
Industrial gear oil	Lubricants for open and closed gear systems ranging from small systems (machine tools) and gearboxes to very large systems (such as those used in steel mills and cement plants). Includes gears used in air compressors, vacuum pumps, bearings, circulating systems, cranes, gearboxes, hydraulic systems, industrial turbines, and vacuum pumps. Also includes chain oils and worm gear oils.
Machine tool lubricants	Includes lubricants for total loss systems, spindle bearings, bearings and associated clutches, pneumatic tools, slideways, and cylinders of steam machines
Metalworking fluid (MWF)	Includes metalworking fluids (for lubrication and cooling), protective products against corrosion, hardening fluids for heat treatment
Process oil	Highly refined medicinal white oils for use in pharmaceuticals, cosmetics, toiletries; highly refined technical oils for extending rubber and plasticizing plastics; other process oils for use in extending rubber and plasticizing plastics, as well as for batching of fibers; caking prevention; dust suppression; wash oil; cleaning and conditioning; agricultural and other carrier oil; printing; foam suppression; and other process oil uses (excluding aromatic extracts).
Transformer & cable oil	Mineral oils used in electrical or power transmission applications for insulation: includes insulating oils, naphthenic and paraffinic transformer oils (used in oil filled transformers and capacitors), and cable oils (for oil-filled cables)
Turbine oil	Includes oils for all turbine uses: gas turbine oil, steam turbine oil, and hydroelectric turbine oil
Other industrial oils	Includes mold release oils, heat transfer fluids and miscellaneous other industrial oils that are used mainly in fiber batching, air filters for air conditioning systems, crack detection, electrolysis and metal plating, and calibrating and standardizing (calibrating and referencing oils)

Source: S&P Global Commodity Insights

Appendix B: North American lubricant demand by product class, 2018 — 2014

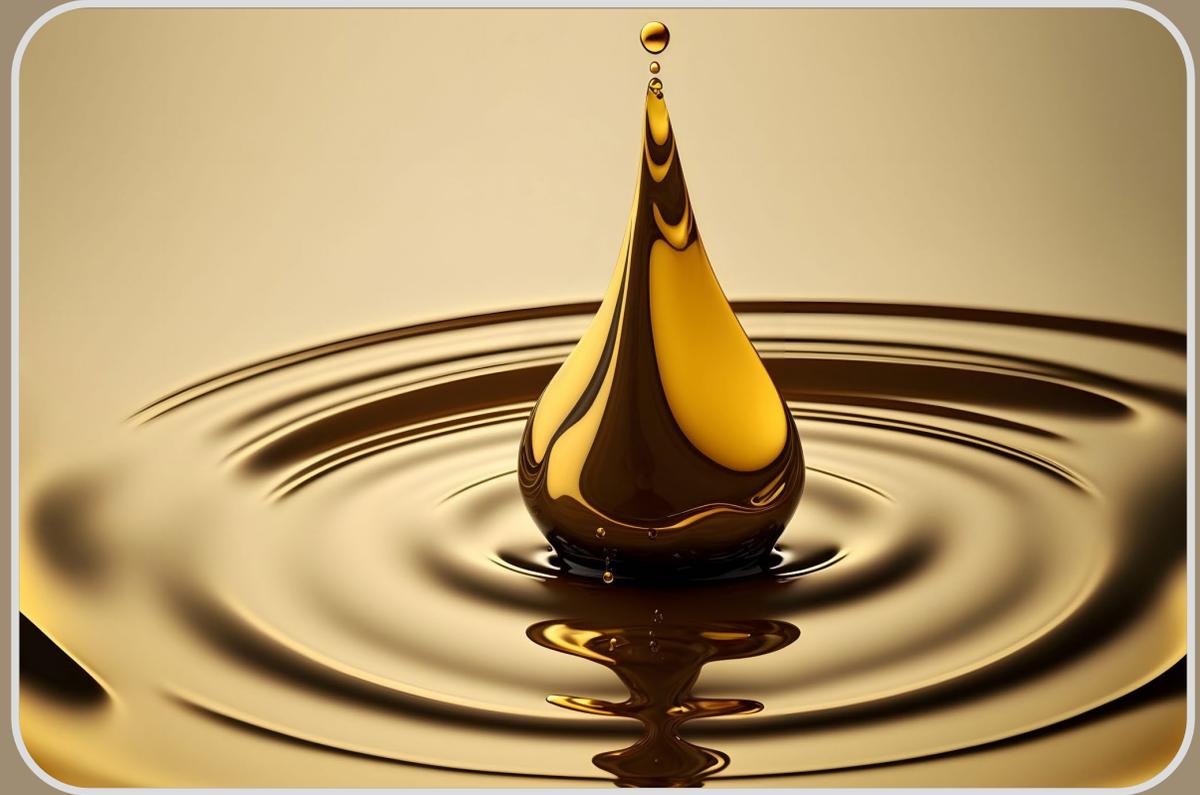


Lubricant volume demand: North America

Lubricant volume demand by sector: North America								
units: Kt/year	2018	2019	2020	2021	2022	2023	2024	% Change 2018-24
Overall lubricant demand	9,301	9,144	8,216	8,618	8,711	8,427	8,252	-11.3%
Motor oils	4,478	4,394	3,914	4,111	4,159	3,982	3,876	-13.4%
Passenger car motor oil	2,626	2,574	2,291	2,397	2,412	2,307	2,251	-14.3%
Heavy duty engine oil	1,852	1,820	1,622	1,714	1,746	1,675	1,626	-12.2%
Other transport lubricants	1,697	1,664	1,473	1,576	1,582	1,533	1,505	-11.3%
Auto gear oil	189	182	159	162	162	157	153	-19.1%
Automatic transmission fluid	626	619	557	576	577	566	549	-12.4%
Aviation oil	24	25	16	20	23	24	24	-0.9%
Marine lubricants	191	179	143	191	200	181	185	-3.4%
Motorcycle oil	40	41	39	41	43	42	41	1.3%
Railroad oil	133	130	117	122	123	118	115	-13.9%
Tractor oil	332	326	290	301	302	297	292	-12.1%
Other transport oils	160	162	155	161	153	148	147	-8.1%
Industrial and process oils	3,126	3,087	2,829	2,932	2,970	2,912	2,870	-8.2%
Compressor oil	29	28	26	27	27	27	26	-9.0%
Grease	189	187	171	177	180	176	174	-7.8%
Hydraulic oil	662	650	597	616	627	614	607	-8.4%
Industrial gear oil	109	107	97	101	103	101	100	-8.2%
Machine tool lubricants	18	17	16	16	16	16	16	-10.3%
Metalworking fluid	505	503	460	480	483	475	469	-7.3%
Process oil	1,059	1,041	960	989	1,006	981	970	-8.5%
Transformer & cable oil	286	284	259	270	272	269	265	-7.3%
Turbine oil	119	117	108	111	113	110	109	-8.2%
Other industrial oils	151	152	135	144	142	143	135	-10.5%

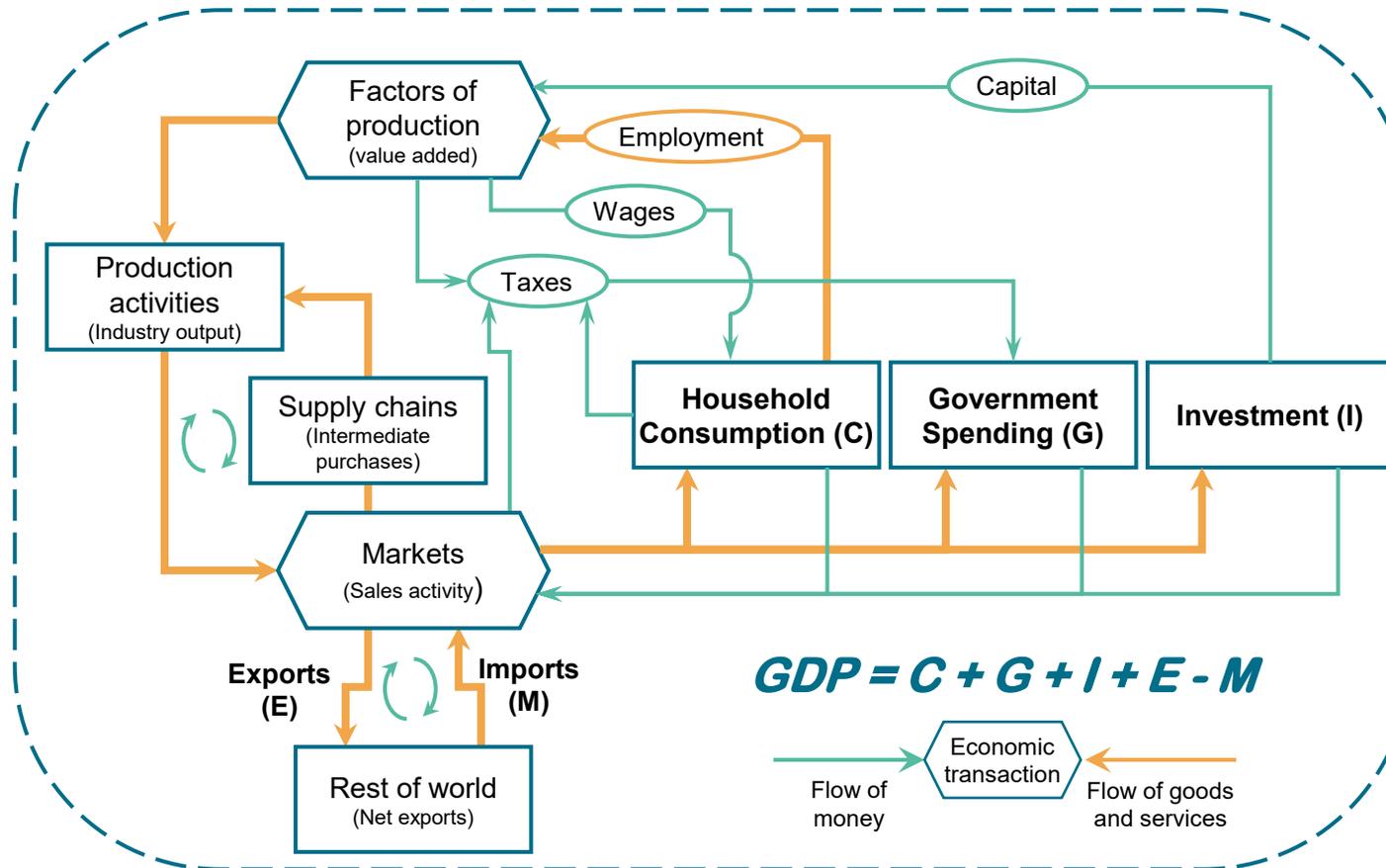
Source: S&P Global Commodity Insights

Appendix C: Economic impact analysis methodology



The economic analyses assessed the multiple ways that the Independents stimulated the US, Canadian and Mexican economies

An interconnected economy

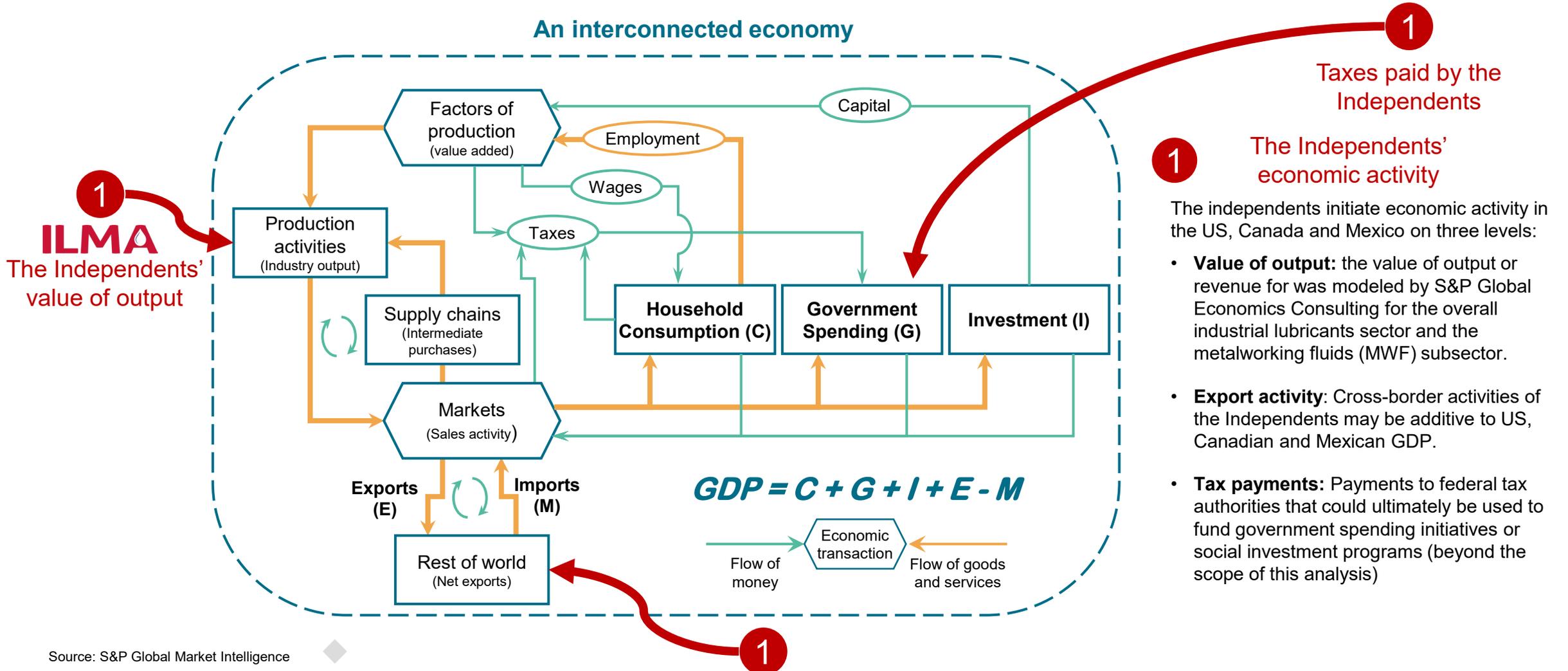


The schematic to the left depicts the flow of activities within an economy that are triggered by interactions between economic actors (e.g., households, industry, government).

At the heart of an economy are the buy-sell transactions (economic activity) that drive employment requirements, stimulate follow-on supply chain activity, generate GDP contributions and so on.

The following slides show the various ways the Independents stimulate in the US, Canadian and Mexican economies.

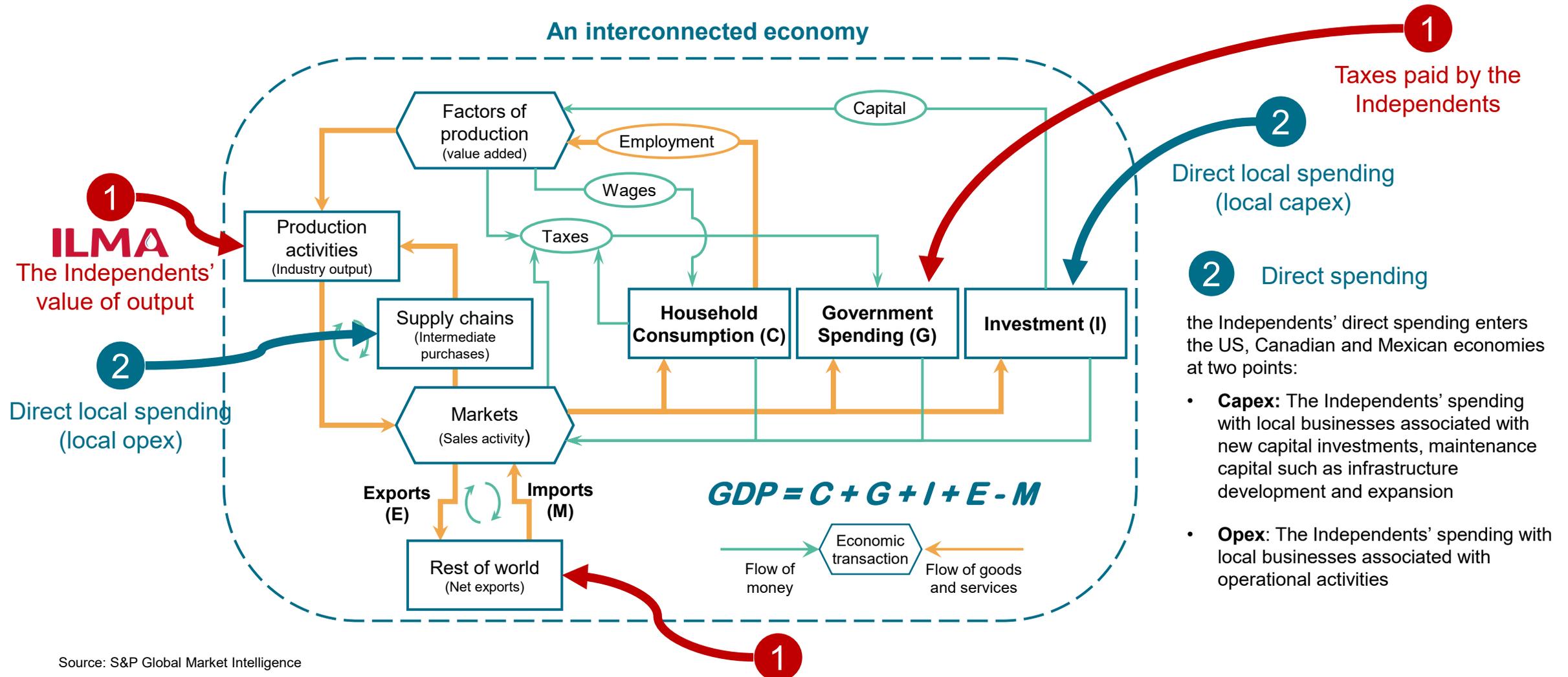
The first economic touchpoint is operational and cross-border activities



- The independents initiate economic activity in the US, Canada and Mexico on three levels:
- **Value of output:** the value of output or revenue for was modeled by S&P Global Economics Consulting for the overall industrial lubricants sector and the metalworking fluids (MWF) subsector.
 - **Export activity:** Cross-border activities of the Independents may be additive to US, Canadian and Mexican GDP.
 - **Tax payments:** Payments to federal tax authorities that could ultimately be used to fund government spending initiatives or social investment programs (beyond the scope of this analysis)

Source: S&P Global Market Intelligence

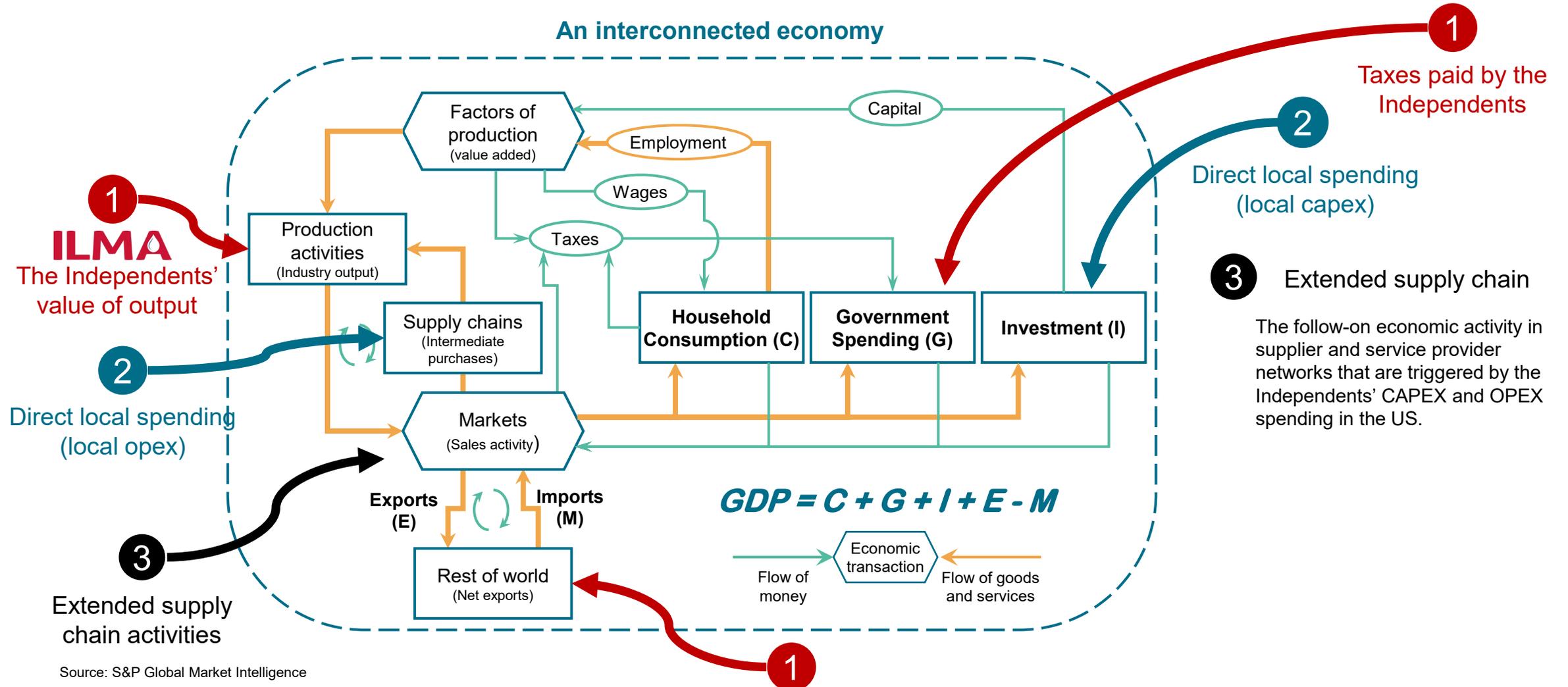
The second economic touchpoint is direct spending with local businesses in the United States, Canada and Mexico



- 2 Direct spending**
- the Independents' direct spending enters the US, Canadian and Mexican economies at two points:
- **Capex:** The Independents' spending with local businesses associated with new capital investments, maintenance capital such as infrastructure development and expansion
 - **Opex:** The Independents' spending with local businesses associated with operational activities

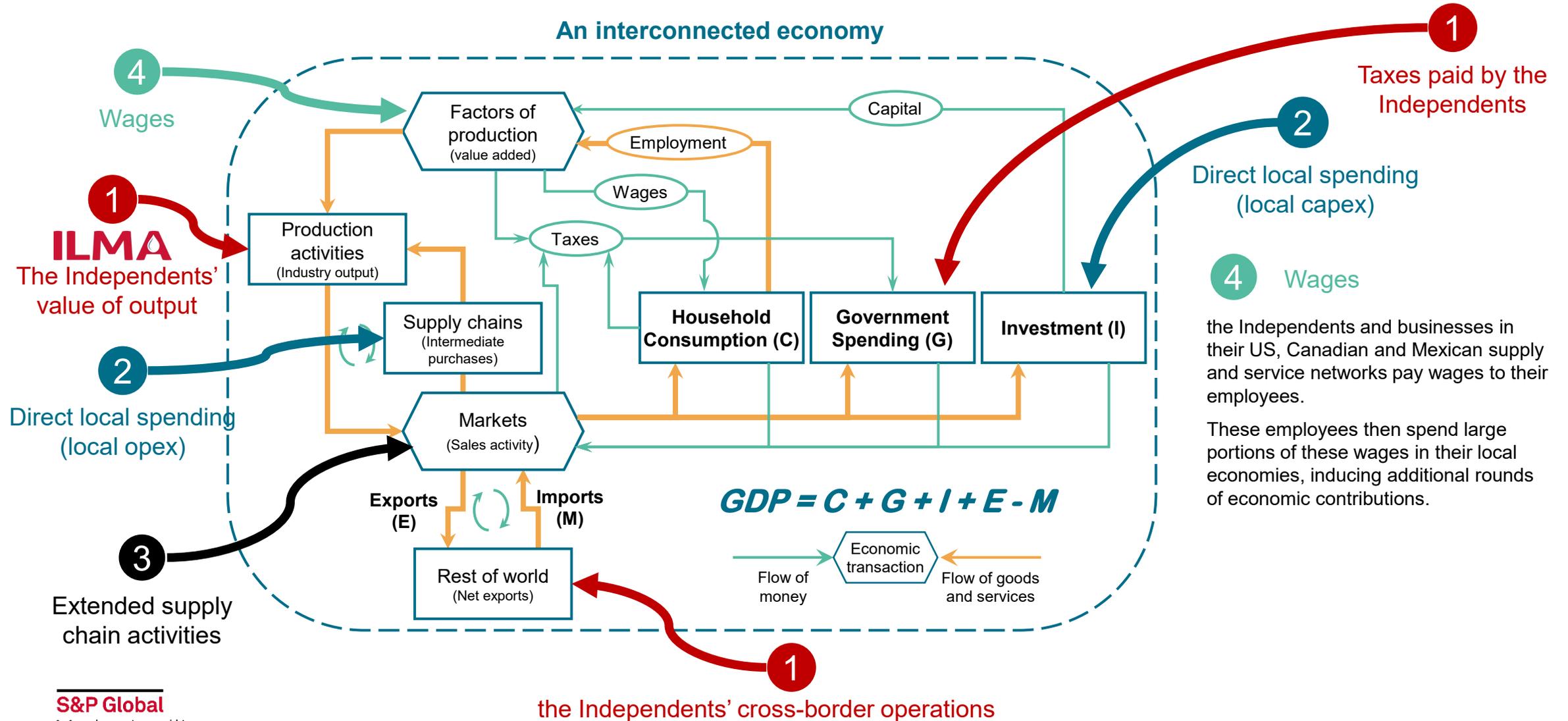
Source: S&P Global Market Intelligence

The third economic touchpoint is the follow-on activity in the extended supply chains in the United States, Canada and Mexico



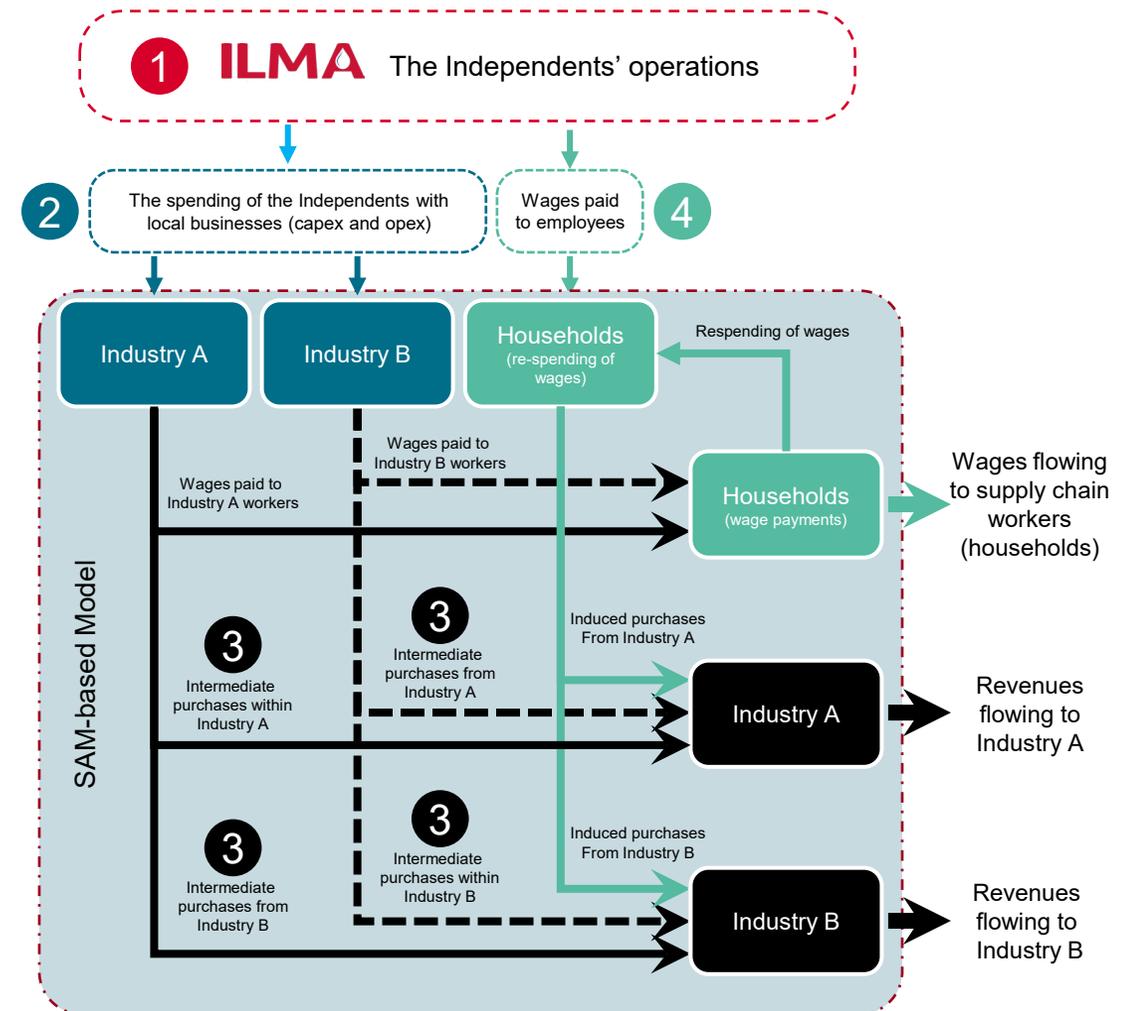
Source: S&P Global Market Intelligence

The fourth economic touchpoint is local spending of wages by employees of the Independents and their extended supply chains in the US, Canada and Mexico



To assess the Independents' economic contributions, S&P Global built a customized model that integrated the US, Canadian and Mexican economies

- A Social Accounting Matrix (SAM) captures the transactional activity between economic actors (industries, households, etc.) in a matrix format where columns representing expenditures by buyers (the demand side) are linked to rows representing income that flows to sellers (the supply side). A simplified SAM-based economic impact model structure is shown at right.
- **Direct spending and extended supply chain effects:** SAM-based economic models trace how direct expenditure transactions stimulate follow-on sectoral economic activity in supply chains (known as indirect activity).
 - For example, direct expenditures flowing to Industry A trigger additional supply chain purchases from within Industry A and from Industry B.
- **Wage-induced effects:** SAM-based models also capture the effects of wages paid to workers in the supply chain
 - Industry A and Industry B pay wages to their workers, which are then re-spent in the local economy
- The SAM-based models developed for this project will contain state-level statistics that are used to determine how transactional activity affect the core economic metrics at the industry, intrastate and interstate levels.



Linking the sources of economic contribution to the affected economic indicators

Sources of economic impact



Revenues and economic activity of the Independents (i.e., value of output and cross-border activities)



Direct local spending

the Independents' direct spending with businesses in the US (i.e., capex and opex)



Extended supply chain

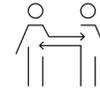
The follow-on supply chain activity triggered by the the Independents' direct spending



Re-spending of wages

Employees of the Independents, its direct supply chain and the extended supply chain (upstream tiers) spending their wages in the US, Canadian and Mexican economies

Key economic indicators affected



Economic activity (economic output)

The value of goods or services produced by US, Canadian and Mexican businesses within a given time, regardless of whether they are sold to buyers or placed in inventory



Contribution to GDP (value added)

The revenues businesses in the US, Canada and Mexico receive for their goods or services less the cost of non-labor inputs (i.e., raw material, supplies, etc.)



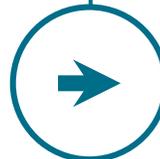
Employment (jobs)

Jobs within the US, Canadian and Mexican economies that businesses need to produce their goods or services



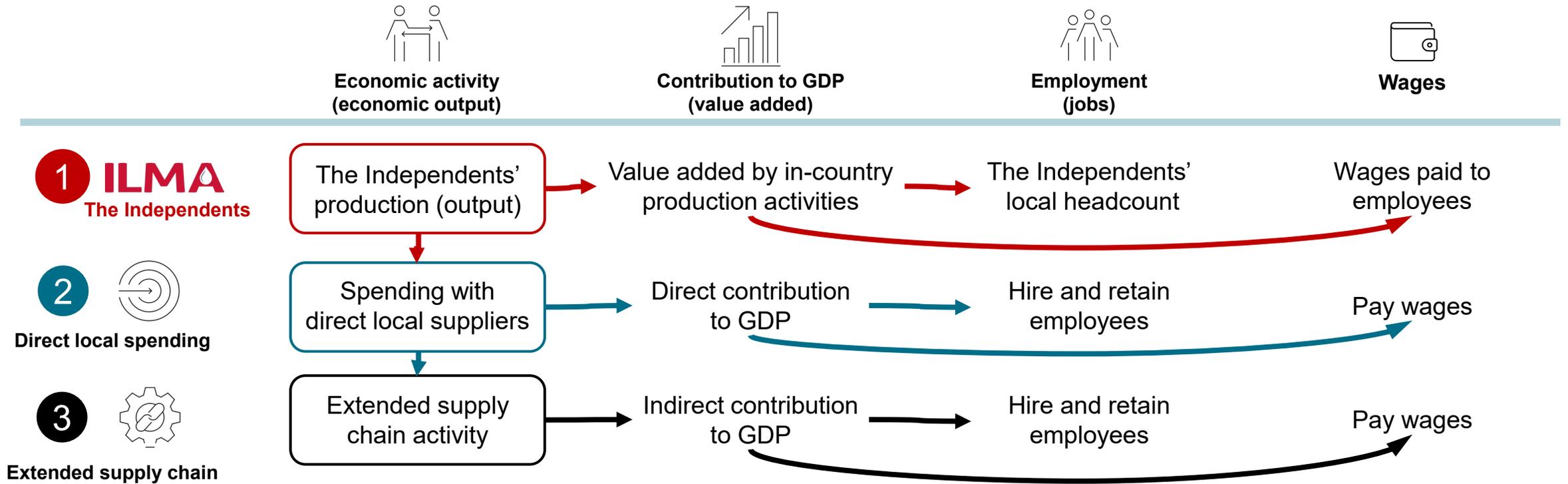
Wage Payments

Base wages paid to employees, exclusive of benefits (insurance, etc.)



Developing the economic impact analysis story — direct and supply chain impacts

Assessing the impacts of the Independents' output on direct and supply chain economic activity



Developing the economic impact analysis story — induced impacts

Assessing the induced impacts of workers re-spending wages in the local economy


Economic activity
 (economic output)


Contribution to GDP
 (value added)


Employment
 (jobs)


Wages

1 **ILMA**
 The Independents

The Independents' production (output)

Value added by in-country production activities

The Independents' local headcount

Wages paid to employees

2 

Direct local spending

Spending with direct local suppliers

Direct contribution to GDP

Hire and retain employees

Pay wages

3 

Extended supply chain

Extended supply chain activity

Indirect contribution to GDP

Hire and retain employees

Pay wages

4 

Re-spending of wages

Spending on household goods and services

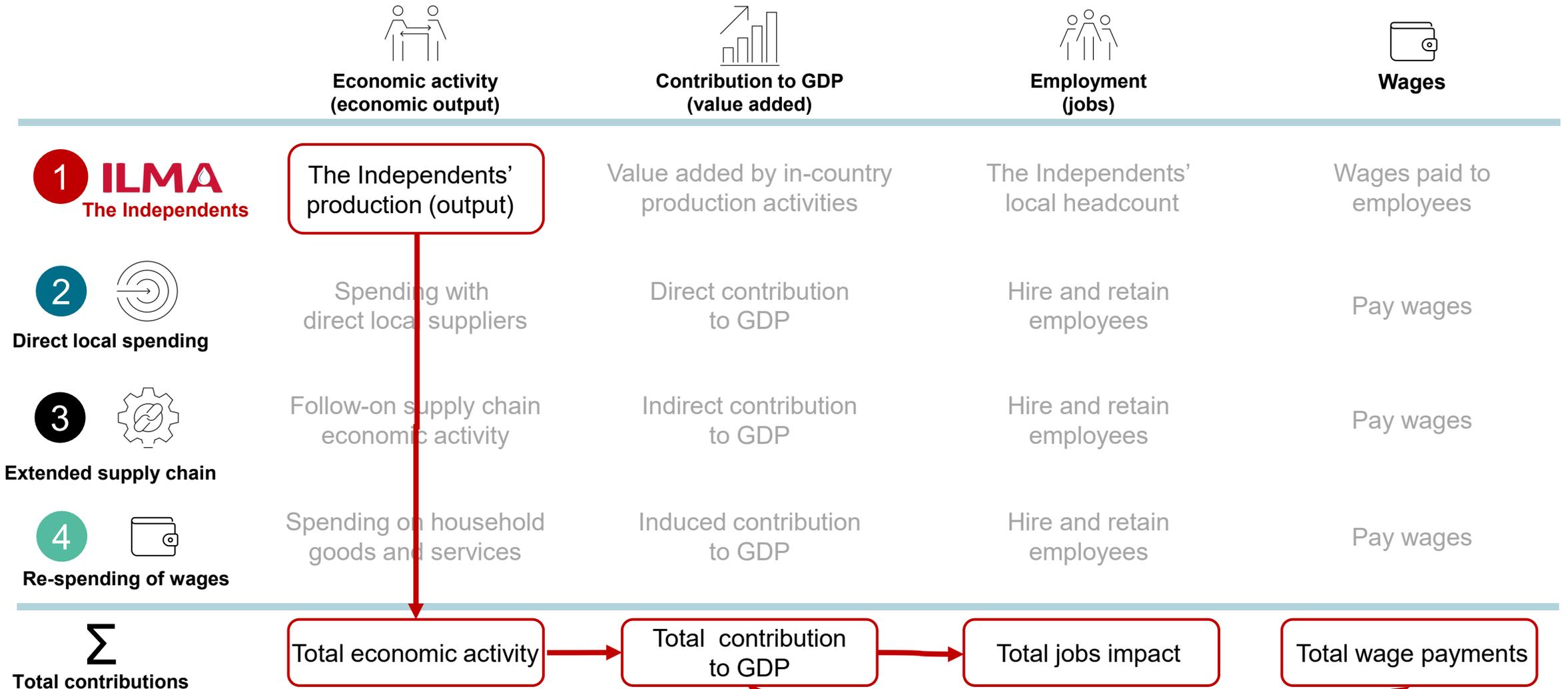
Induced contribution to GDP

Hire and retain employees

Pay wages

Developing the economic impact analysis story — total impacts

The Independents' production activities are the catalyst of the total economic contributions



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