

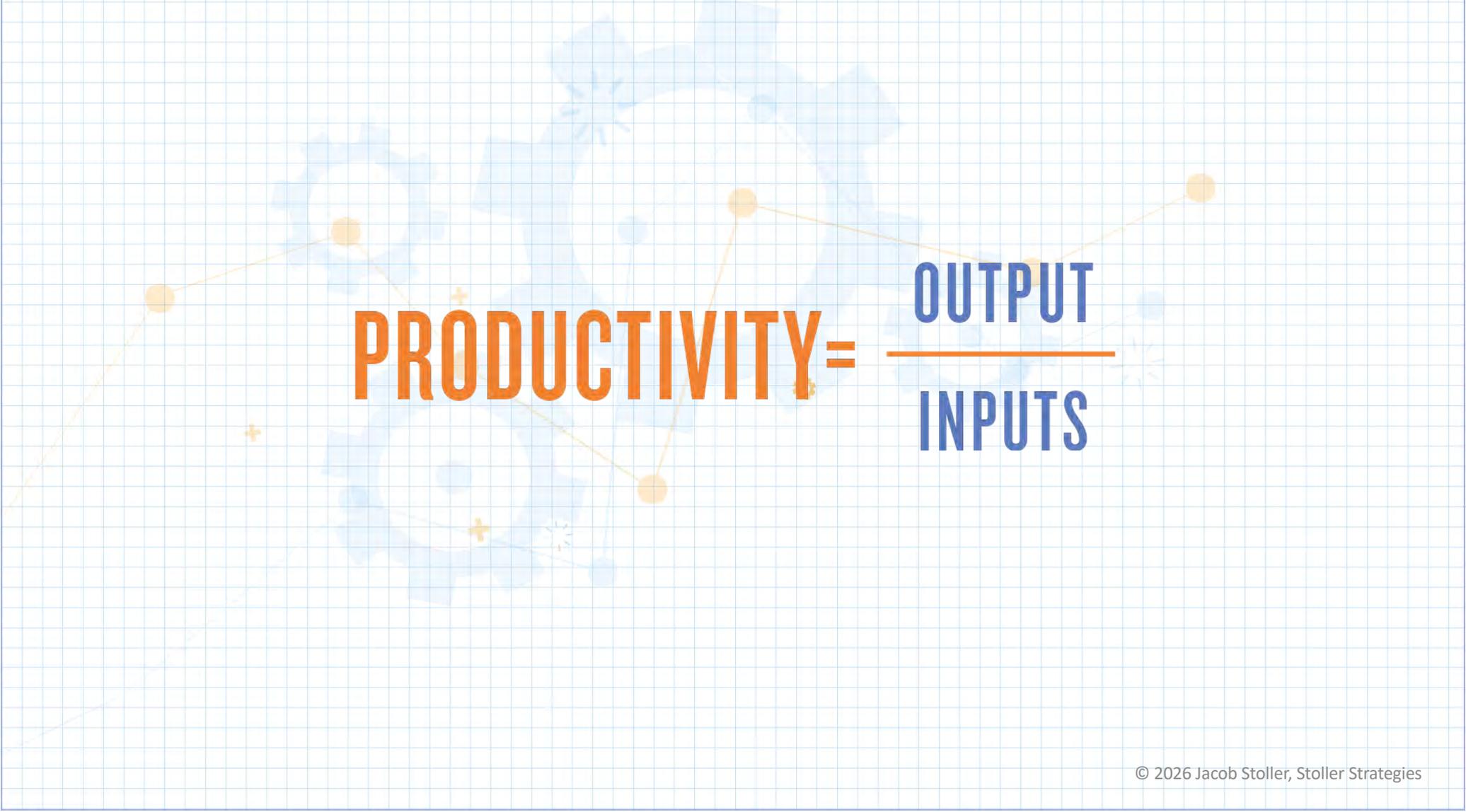
# PRODUCTIVITY REIMAGINED

## A GROWTH STRATEGY FOR CANADA

JACOB STOLLER

# CANADA'S BREAK THE GLASS MOMENT




$$\text{PRODUCTIVITY} = \frac{\text{OUTPUT}}{\text{INPUTS}}$$

$$\text{PRODUCTIVITY} = \frac{\text{OUTPUT}}{\text{INPUTS}}$$

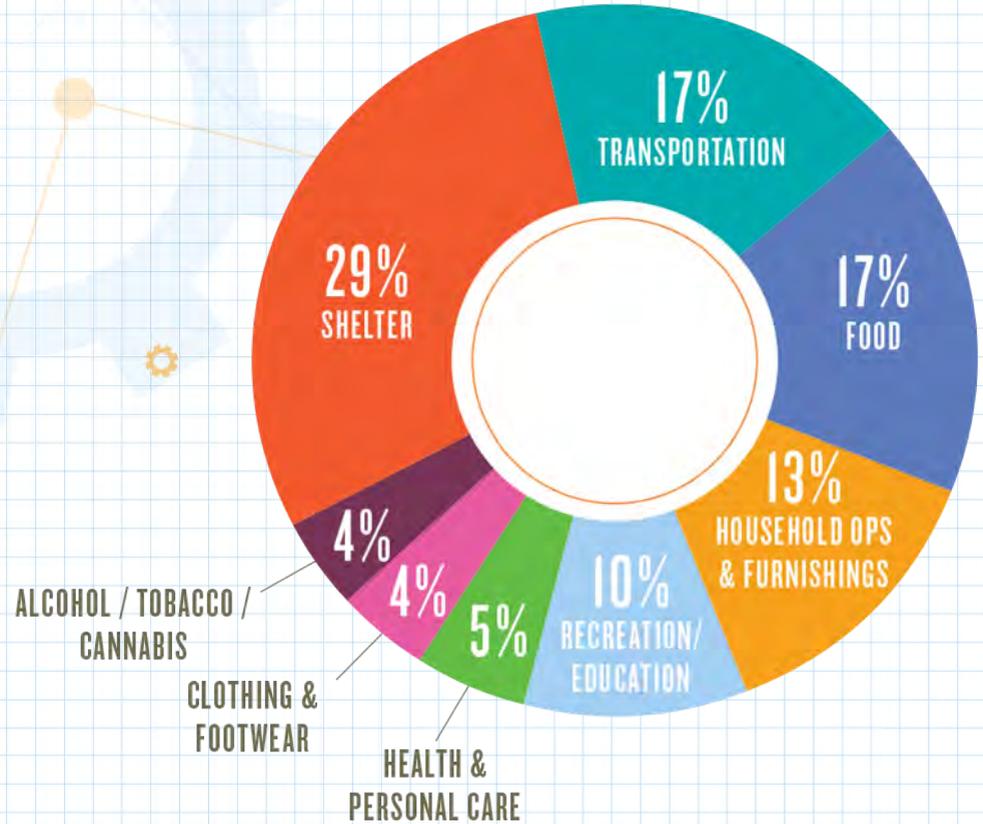
*“Higher productivity should be everyone’s goal because that’s how we create a better economy for everyone.”*

**– CAROLYN ROGERS, BANK OF CANADA**

# REAL PRODUCTIVITY GROWTH MEANS IMPROVING THE

- + quality
- + availability
- + affordability

# OF THE GOODS AND SERVICES THAT CANADIANS DEPEND ON.



# CANADA'S RESPONSE TO THE CRISIS

- Incentivize tech/AI spending
- Fund tech/AI R&D
- Upgrade digital and other infrastructure
- Attract private investment
- Shrink public service workforce



?

— This Way to —  
**PRODUCTIVITY**



**Today**

## HOW PROGRESS IS MEASURED



**LABOUR  
PRODUCTIVITY** =  $\frac{\text{GDP}}{\text{\# OF WORKERS}}$

**MISCONCEPTION I**

**RIISING GDP MEANS RISING STANDARD OF LIVING.**

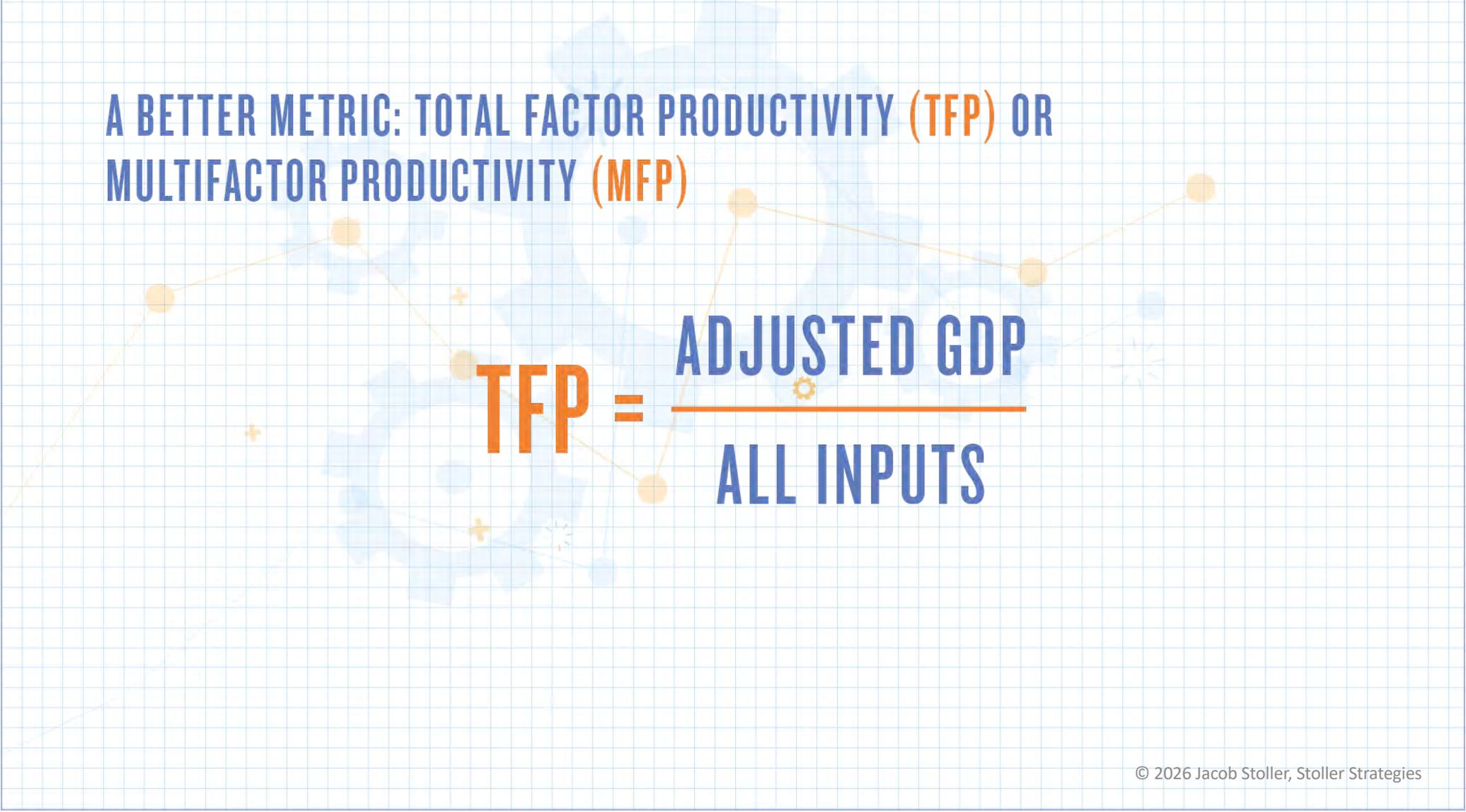
$$\text{LABOUR PRODUCTIVITY} = \frac{\text{GDP}}{\text{\# OF WORKERS}}$$

**OUTPUT = GDP**

**SNA MOVED THE GOALPOSTS  
TO INCLUDE:**

**CAPITAL  
DEEPENING**

# A BETTER METRIC: TOTAL FACTOR PRODUCTIVITY (TFP) OR MULTIFACTOR PRODUCTIVITY (MFP)


$$\text{TFP} = \frac{\text{ADJUSTED GDP}}{\text{ALL INPUTS}}$$

- **SUBTRACT** CAPITAL DEEPENING,  
GROWTH IN WORKFORCE

+ **ADD** MATERIALS, FACILITIES,  
TRANSPORTATION, SUPPORT SERVICES, ETC.

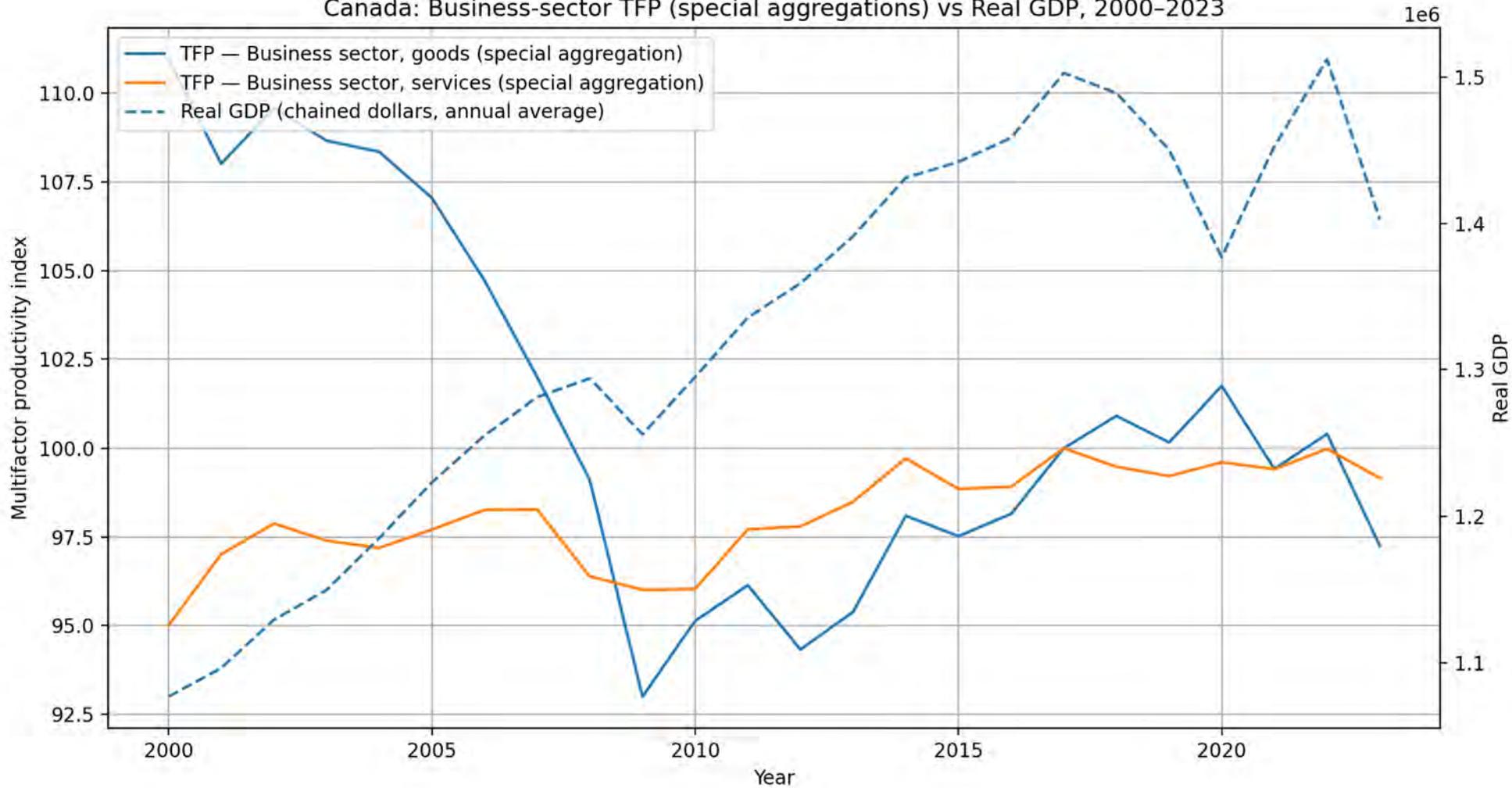


**ADJUSTED GDP**

**ALL INPUTS**

**= TFP**

Canada: Business-sector TFP (special aggregations) vs Real GDP, 2000-2023



**MISCONCEPTION 2**

**THE KEY TO HIGHER PRODUCTIVITY IS  
MORE TECHNOLOGY AND FEWER WORKERS.**

$$\text{LABOUR PRODUCTIVITY} = \frac{\text{GDP}}{\text{\# OF WORKERS}}$$

## MISCONCEPTION 2

THE KEY TO HIGHER PRODUCTIVITY IS  
MORE TECHNOLOGY AND FEWER WORKERS.

$$\text{LABOUR PRODUCTIVITY} = \frac{\text{GDP}}{\text{\# OF WORKERS}}$$





# A GROWTH MINDSET...

# HERE'S WHAT'S GETTING RESULTS.

## ZERO-SUM AUTOMATION

- Cost cutting
- Top-down approach

## POSITIVE SUM AUTOMATION

- + Help people be more productive
- + Work with process owners

# LEAN ROADMAP FOR TECH DEPLOYMENT

- + **Simplify process, set objectives**
- + **Consider mechanical alternatives**
- + **Deploy automation**

**THERE'S NO EASY BUTTON.**

### MISCONCEPTION 3

## PRODUCTIVITY CAN BE ENSURED WITH EXPLICIT KNOWLEDGE.

### EXPLICIT KNOWLEDGE

- + Fixed knowledge, IP
- + Books and courses
- + Codified, learnable by AI

### TACIT OR PROCESS KNOWLEDGE

- + Constantly changing
- + Mentorship and experience
- + Not codified
- + Relationships

### MISCONCEPTION 3

## PRODUCTIVITY CAN BE ENSURED WITH EXPLICIT KNOWLEDGE.

### EXPLICIT KNOWLEDGE

- + Fixed knowledge, IP
- + Books and courses
- + Codified, learnable by AI

10%

### TACIT OR PROCESS KNOWLEDGE

- + Constantly changing
- + Mentorship and experience
- + Not codified
- + Relationships

90%

# THE PRIMACY OF EXPLICIT KNOWLEDGE



**WORK STANDARDS**

**CONTINUOUS  
IMPROVEMENT**

**TACIT KNOWLEDGE**

**COROLLARY: EXPLICIT AND TACIT KNOWLEDGE CAN BE SEGMENTED.**



# WORKER KNOWLEDGE AS A STRATEGIC ASSET



# PRIORITIES FOR CANADA



1. **Respect for people - the real key to productivity**
2. **Reduce waste in the real economy**
3. **Technology deployment to improve processes**
4. **Growth, not cost cutting**
5. **Get real about metrics**

# ROLE FOR GOVERNMENT - LEADERSHIP



- + Centres of excellence in opex
- + Support productive deployment of tech
- + Encourage dynamic companies that grow
- + Develop healthcare to its full potential
- + Get real about the environment

# IF WASTE WERE REDUCED BY ONE-QUARTER...



**+14%**  
**Hospital  
Capacity**



**+13%**  
**Housing  
Units**



**+12%**  
**Mfg.  
Capacity**



**+15%**  
**Food  
Production**

**WE ARE LIVING WITH THE CONSEQUENCES OF DECADES OF LOW  
PRODUCTIVITY GROWTH.**

**TECHNOLOGY CAN HELP, BUT IT'S A HUGE MISTAKE TO TREAT IT AS A  
MAGIC BULLET.**

**SOLVING THE CRISIS WILL REQUIRE MASTERING THE PROCESSES THAT  
CREATE VALUE AND RESPECTING THE PEOPLE THAT ENABLE THEM.**



**THANK YOU**