



**Asia-Pacific  
Economic Cooperation**

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Agenda Item: 3

## **Modern Supply Side Economics**

Purpose: Information  
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July 30, 2023

# **Modern Supply Side Economics**

**U.S. Treasury**

# What is Modern Supply Side Economics (MSSE)?

- MSSE is a policy framework that focuses on **government action to increase long-run economic output (per capita)** by expanding inputs to production, including:

Labor supply



Human capital



Public infrastructure



Research and Development (R&D)



Investments in a sustainable environment



- An important feature of MSSE is that it supports economic growth without adverse effects on equity or the environment.

# Theoretical Underpinnings of MSSE

- Two theoretical underpinnings:
  1. As with other supply-side policy frameworks, MSSE hinges on the theoretical premise that **increasing productive capacity will lead to higher long-run aggregate output**
  2. In contrast to other supply-side frameworks, MSSE puts more weight on the **need for government action** to achieve higher productive capacity
    - Traditional market failures
    - Other persistent inefficiencies

# MSSE Framework

- A policy framework is a set of government actions intended to achieve a specific goal and justified by a theory of the government and the economy

## Example Macroeconomic Policy Frameworks

Name	Goal	Theory	Role of Government
Modern Supply Side Economics (MSSE)	higher long-run aggregate economic output without adverse effects on equity or the environment	Increasing productive capacity will lead to higher long-run output	Government action is needed to overcome market failures to increase productive capacity
Traditional Supply Side Economics (TSSE)	higher long-run aggregate economic output	Increasing productive capacity will lead to higher long-run output	The government should create incentives and remove impediments for the market to increase productive capacity
Keynesian Economics	Stabilize output and inflation in response to short-run demand-side fluctuations	Countercyclical policies can manage aggregate demand	Higher government spending can stimulate the economy in the short run

# Sources of Long-Run Growth

$$Y=Af(K,L,H)$$

- **A, total factor productivity**, covers technology in a scientific sense, but also production processes, resource allocation, institutions, property rights, the interactions between these factors, etc. Changing  $A$  is the main source of changing the growth rate of potential output because it does not face diminishing marginal returns
- **K, the stock of physical capital**, includes private physical capital, such as office buildings, machinery, and computer software; and public capital such as roads, bridges, and airports
- **L, labor**, can be grown via increased labor force participation and/or through growing the population via increased fertility rates or immigration
- **H, the stock of human capital**, a measure of the productivity of workers, which could be the result of education, training, work experience, and individual talent

# The Case for a Role for Government Action: Market Failures and Other Inefficiencies

- **Externalities:** environmental policy improves health and productivity; R&D spillovers mean there's underinvestment
- **Public goods:** infrastructure investment and provision of public goods have been shown to increase growth
- **Information asymmetries:** lack of information leads to statistical discrimination
- **Market power:** monopolies underprovide R&D leading to slower growth
- **Other inefficiencies:** liquidity constraints restrict childcare access, R&D financing, and education; discrimination

# Addressing Inequality and Climate Change as Growth Policies

- Inequality:
  - **Place-based labor market policies** have bigger payoffs for disadvantaged communities
  - **Anti-discrimination policies** can increase aggregate productivity because discrimination interferes with the optimal allocation of talent
  - **Investment in children** is under-provided in disadvantaged communities and has high expected returns
- Climate change:
  - **Mitigation and adaptation** have high economic returns by avoiding direct worst outcomes of climate change
  - **Reducing local pollutants** improves productivity
  - **Well-designed climate policy** has indirect effects on growth via spillovers from R&D and reductions in inequality



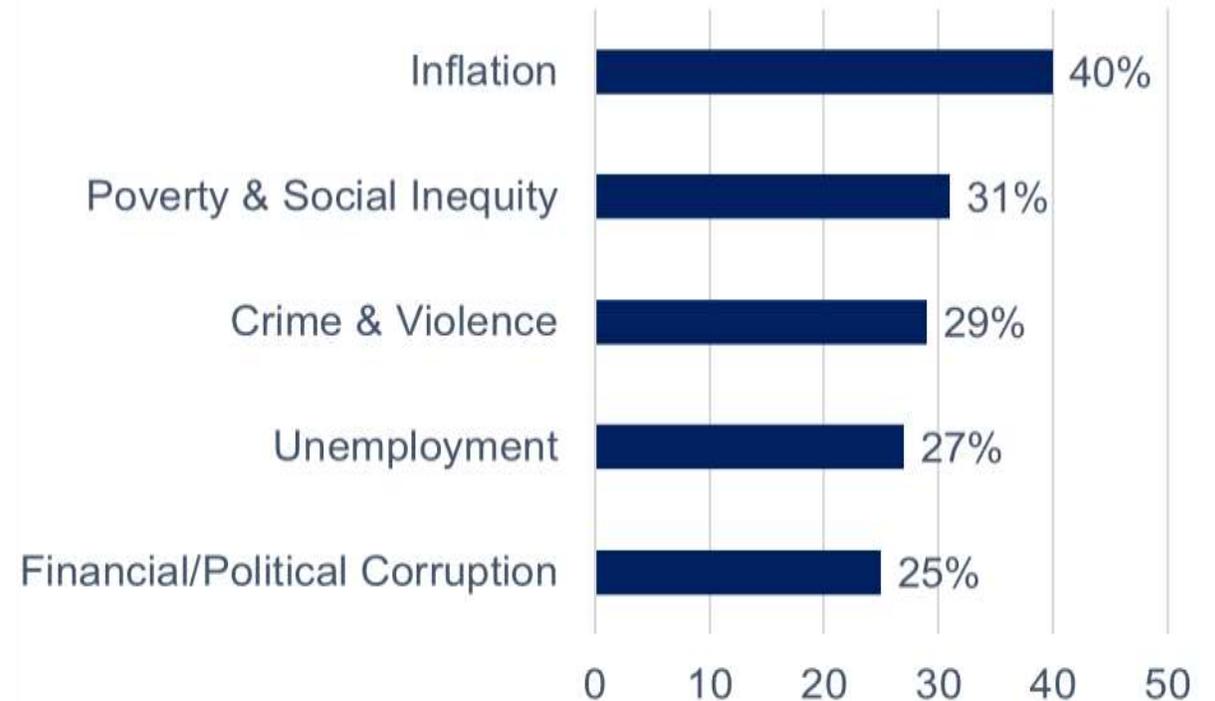
# Research Evidence for Government Action

- **Returns to government R&D** ([Fieldhouse and Mertens, 2023](#)): “government-funded R&D accounts for about one quarter of business-sector TFP growth since WWII, and generally point to substantial underfunding of nondefense R&D.”
- **More inclusive talent pool** ([Hsieh et al., 2019](#)): over the 1960 – 2010 period, “between 20% and 40% of growth in aggregate market output per person can be explained by the improved allocation of talent” in terms of race and gender.
- **Public capital** ([Bom and Ligthart, 2013](#)): Using meta-regression analysis for studies across OECD economies, the long run output elasticity of public capital is estimated to be 0.122, suggesting that public capital is undersupplied.
- **Female labor force participation** ([Goldin, 1986](#)): “the increase [between 1890 and 1980] in the participation of women and in their relative earnings was associated with an increase in income that was from 16% to 28% higher than was the increase in male earnings alone.” Furthermore, at the top end of this range, “Had the female labor force not expanded over this period, income per capita would probably have been at least 14% lower than it actually was.”
- **Early childhood education** ([Delalibera and Ferreira, 2019](#)): “early childhood education can explain a large part of the observed increase of years of schooling in the U.S. since 1961, and it was as important as formal education for the increase of labor productivity in the period.”
- **Inequality and human capital accumulation** ([Berg et al, 2018](#)): “Across a variety of estimation methods, data samples, and robustness checks, we find: (1) lower net inequality is robustly correlated with faster and more durable growth, controlling for the level of redistribution; (2) redistribution appears benign in terms of its impact on growth, except when it is extensive; and (3) inequality seems to affect growth through human capital accumulation and fertility channels.”

# MSSE Policies: Why Now?

- All our sources of long-run growth are under strain:
  - **Total factor productivity is weak** due to historical underinvestment in R&D
  - **Infrastructure (physical capital) is insufficient**, aging, and mismatched with modern needs
  - The pandemic caused **labor force and human capital losses**
  - **Climate-related shocks** are increasing in frequency and severity
  - **Supply chains** for many productive inputs have been shown to be susceptible to disruption. Expanding economic production diversifies supply and can ease price pressures
- MSSE policies are win-win scenarios: more economic growth and less inflationary pressure, often while helping disadvantaged communities and/or improving the climate

## Ipsos Top Global Worries - June 2023



Source: Ipsos' *What Worries the World* June 2023 Survey

# MSSE Policies of the Biden-Harris Administration

- Investments in infrastructure
  - The Bipartisan Infrastructure Law provides long-overdue investments in broadband, ports, roads, and rail
- Investments in research and development
  - The CHIPS and Science Act authorizes tens of billions in federal government investment into research and development across a range of agencies
  - The Inflation Reduction Act provides the long-term clarity that businesses need to make the large-scale investments for the transition to a clean energy economy
- Investments in our workforce
  - Further proposals in President's FY2024 Budget increase childcare options, workforce training programs, paid leave, and access and affordability of higher education

