

Rethinking Regional Economics through the Lens of MMT: A Case Study of Japan using 2015 Interregional Input-Output Data

*The inaugural UK Modern Monetary Theory Conference
at The University of Leeds*

東京経済大学

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Self-Introduction

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- Japanese Researcher in Public Finance
- 2013, Obtained a PhD in environmental taxes
- Encountered MMT in 2014
- Engaged in PB calculations at the Cabinet Office from 2016
- Introduced MMT in fiscal studies lectures in 2017
- MMT became a major trend in Japan in 2019
- Joined the Japanese translation team for Macroeconomics
- Currently researching the application of MMT to regional economies and inter-regional economies

Care, Education, and GND

- Japan's "Medical Expense Disaster" Theory
 - Criticism to unnecessary public investment projects
 - Enhancing international competitiveness through labor market liberalization
 - Education is a personal responsibility
 - Privatization of the public sector
 - Outsourcing for cheap labor
 - Decarbonization investment is stagnant
- ⇒ Equivalent to taxing only care workers

Deflation and Deficit published in 2018

"Reexamining Deflation - Analysis using a VAR Model Separating Public Fixed Capital Formation and Government Final Consumption Expenditure"

- 1) Government as the monopolist of money in price determination
- 2) Why didn't Japan experience inflation despite increasing fiscal deficits?
- 3) Lowering the unit price of government spending (not cash transfers) = wage rate leads to deflation
- 4) Surprising conclusions:
 1. Lowering the unit price while increasing fiscal deficits lowers prices
 2. Raising the unit price while reducing fiscal deficits increases prices

Study on Fiscal Collapse published in 2024

"Did Fiscal Expenditure to Address the COVID-19 Pandemic Increase the Risk of Fiscal Collapse?"

- Research on fiscal collapse is thriving in Japan
- Abenomics' reflation policy failed
- The increase in government debt does not necessarily lead to fiscal collapse. However, there are countries that do experience fiscal collapse. Why is that?
- Case study of Sri Lanka and the United Kingdom
- Japan has chronic trade deficits and income surpluses

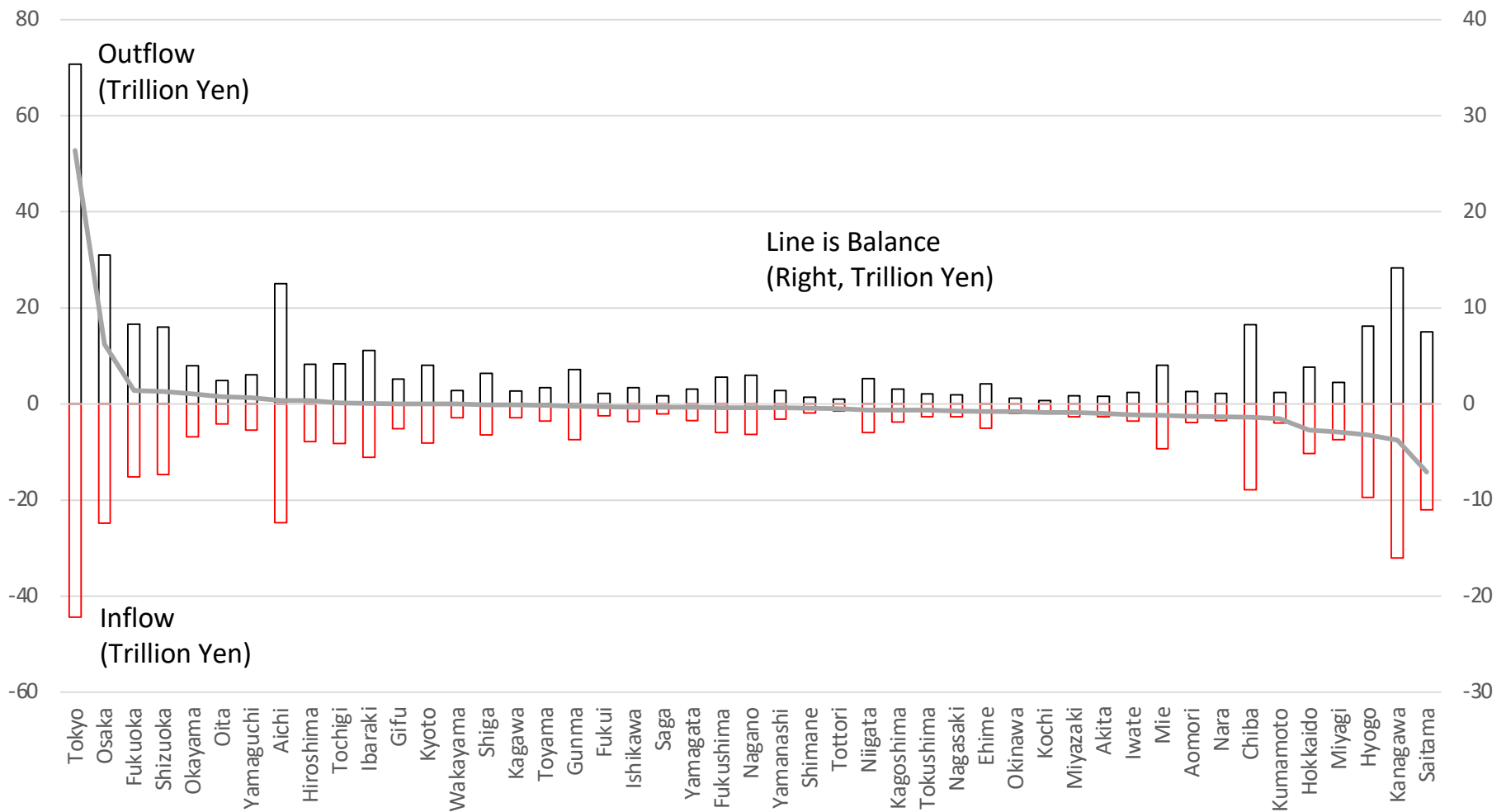
Joint Research on Regional Balance of Payments from 2020

- The mechanism behind the Greek crisis
- Hume's Specie-Flow Mechanism
- From the Gold Standard to the Bretton Woods system
- From the Smithsonian Agreement to the floating exchange rate system
- The EU's adoption of the single currency, the Euro
- What about regional economies and local governments?
- In 2019, started researching the application of JG's ideas to local economies as part of local fiscal studies
- Have been increasing collaborators in the field that combines fiscal studies and regional research

Multi-Regional Input-Output Analysis with Lens of MMT

- The input-output table describes the output and input by sector
- The interregional input-output table describes the output and input by region and sector
- The trade structure between regions can be broken down by function \Rightarrow The balance of payments is never balanced!
- The economic activities of the government sector are measured based on the SNA \Rightarrow All expenditures are money creation, all burdens are money destruction
- The financial balance through interregional trade and the financial balance of the government sector \Rightarrow If there is a deficit, reduce consumption and reduce imports, reduce costs and increase exports = lower wage levels = effectively taxing only that region

Outflow/Inflow/Balance 2011



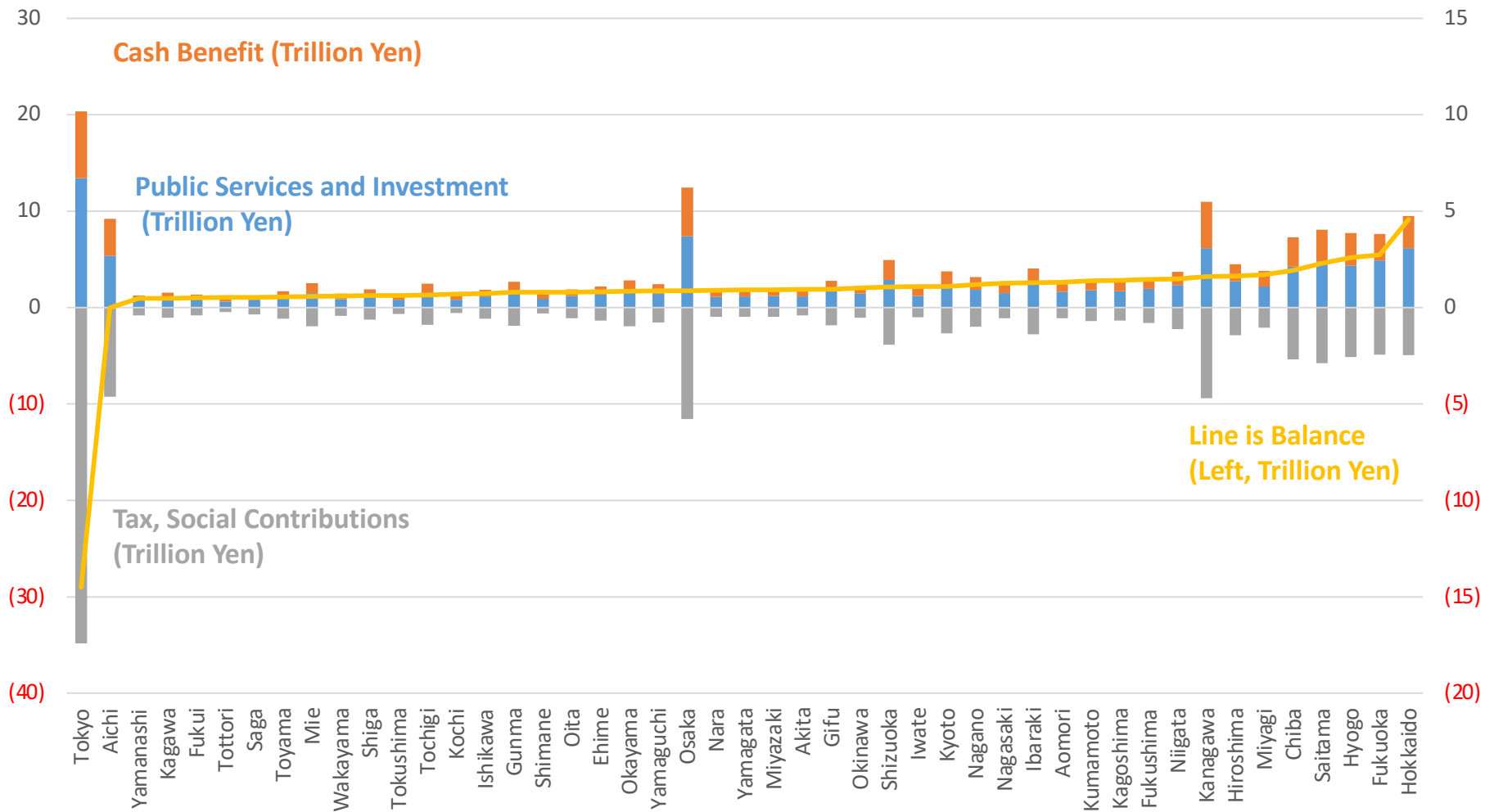
Outflow 2011 by Sector

Industry Sectors	Trade Value
1. Commerce	53
2. Food products	42
3. Chemical, petroleum, and coal products	35
4. Transportation machinery	30
5. General-purpose, production, and business-use machinery	26
6. Primary metals	18
7. Professional, scientific, and technical services	18
8. Information services, audiovisual and text information production	17
9. Transportation and postal services	17
10. Other manufacturing industries	16

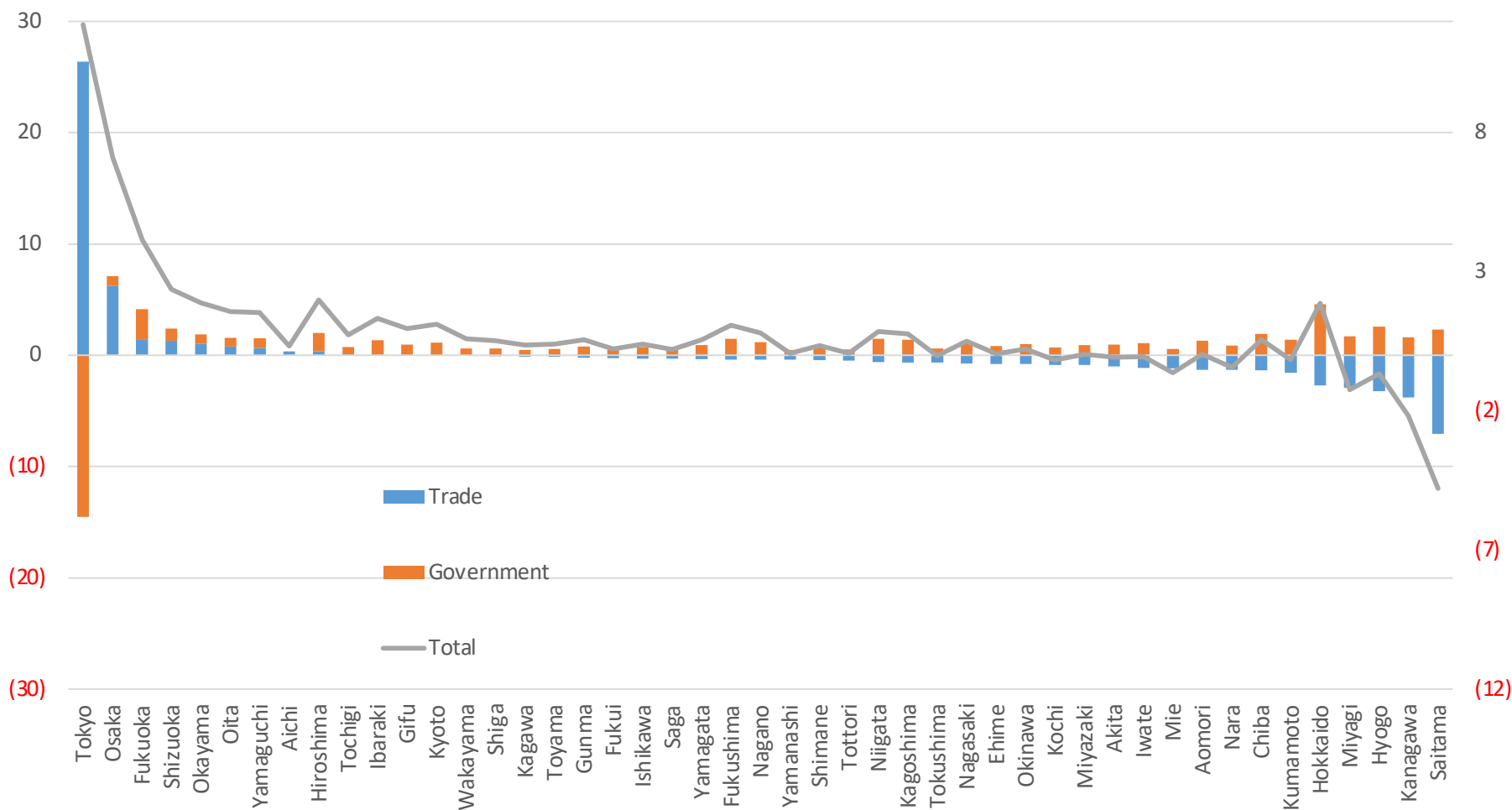
Money Flow Structure 2011

- If final demand increases by one unit in each region, how will the balance of payments change in each region?
- Money is concentrated in Tokyo
- Outflows from Tohoku, Shikoku, San'in, and southern Kyushu
- Outflows from the surrounding areas of Tokyo (Saitama, Kanagawa, Chiba)

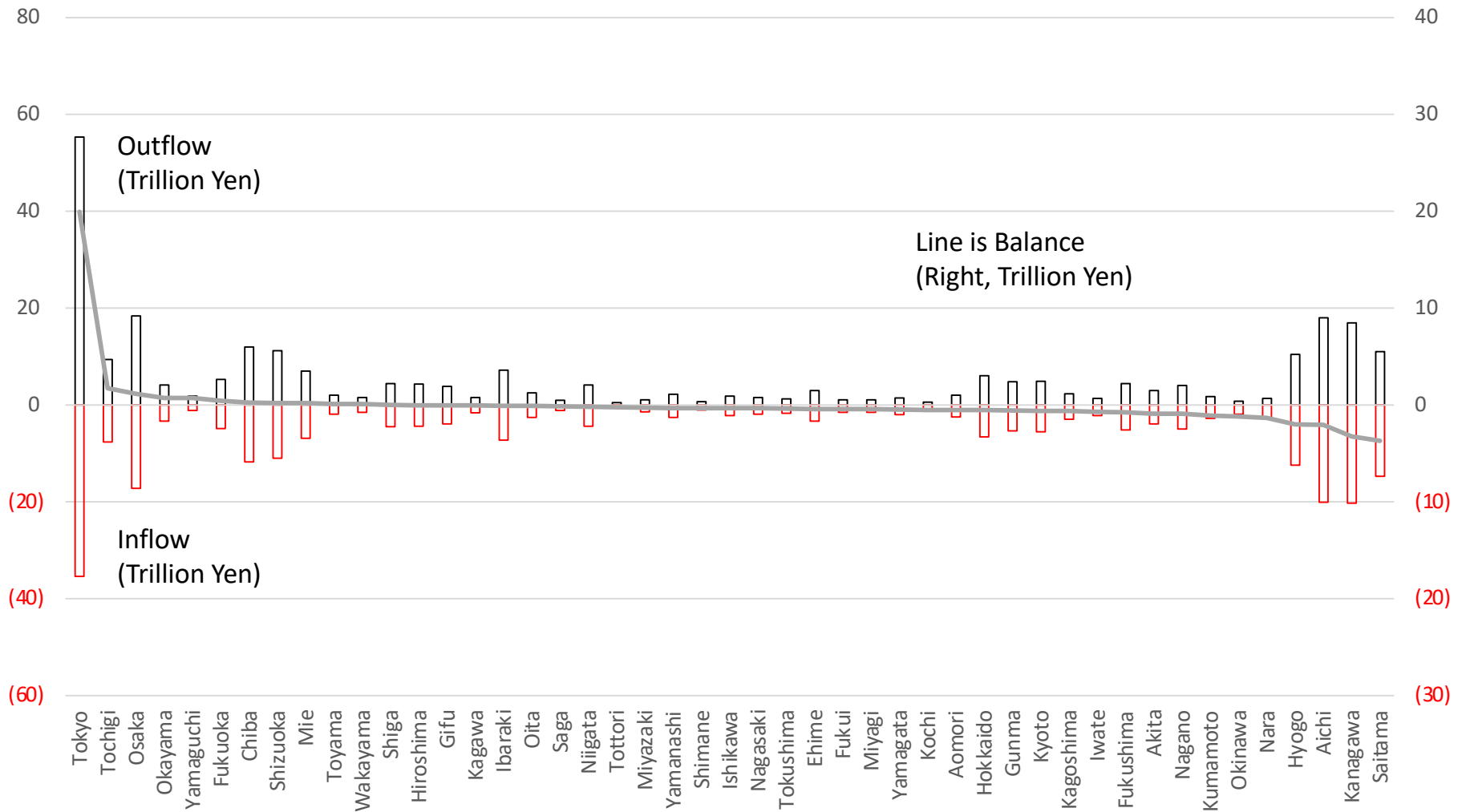
Money Creation/Destroy 2011



Trade and Fiscal Adjustment 2011



Outflow/Inflow/Balance 2015

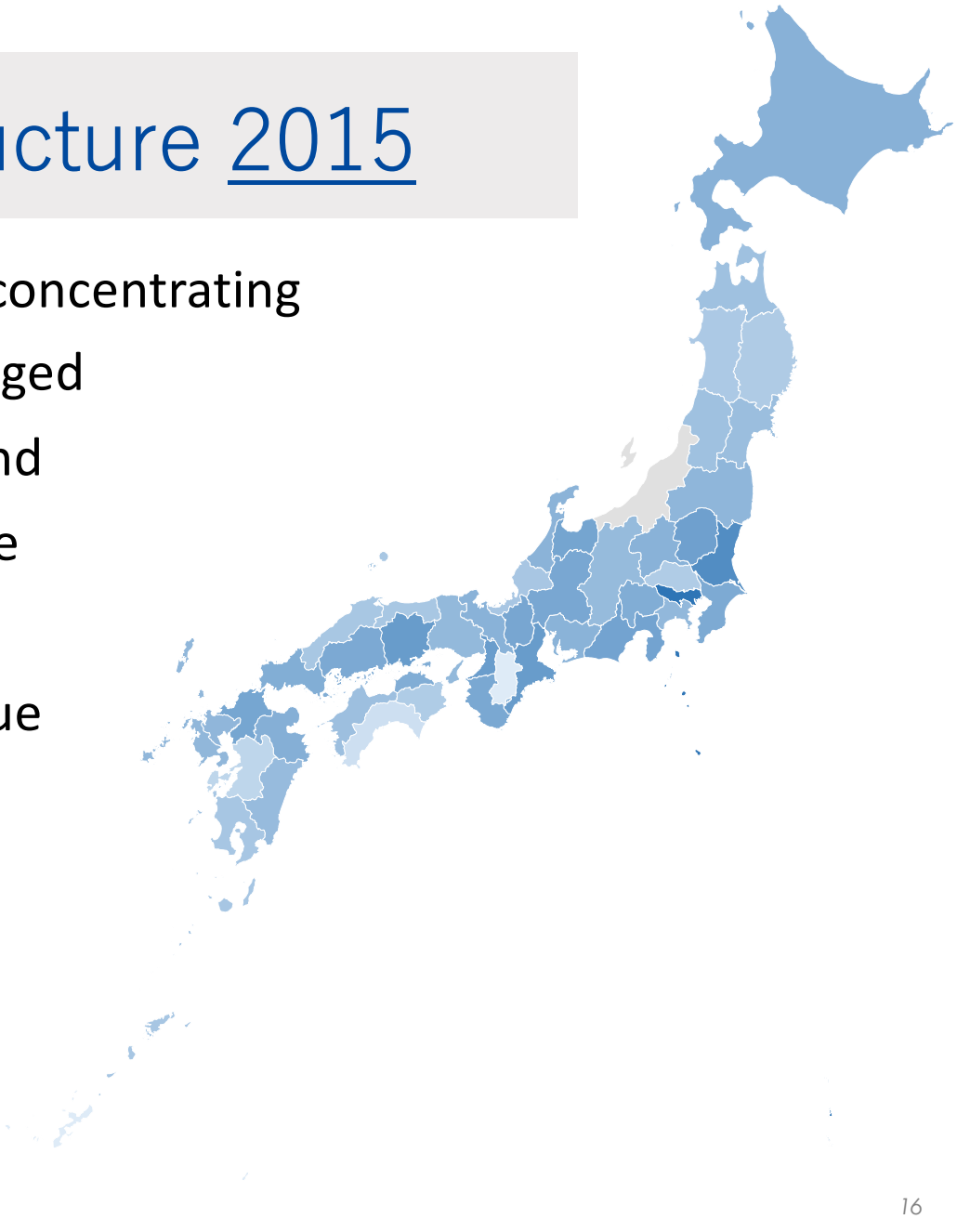


Outflow 2015 by Sector

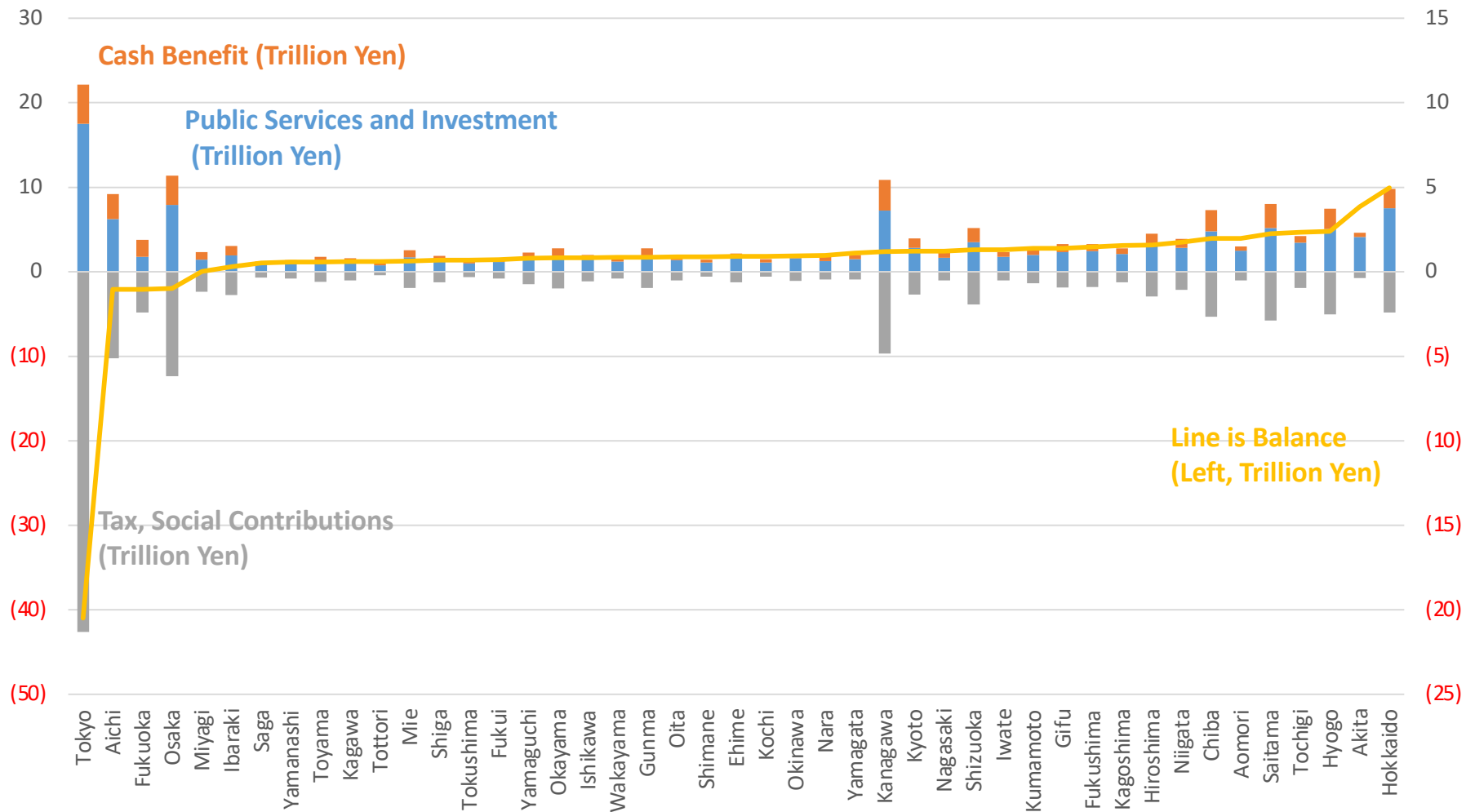
Industry Sectors	Trade Value
1. Commerce	29
2. Food products, tobacco, beverages, feed, organic fertilizers	26
3. Automobiles and parts	18
4. Chemical products and pharmaceuticals	16
5. Advertising and information services	12
6. Petroleum and coal products	10
7. Other business services	9
8. Pig iron, crude steel, steel materials	8
9. Machinery for production	7
10. Electricity, gas, heat supply	7

Money Flow Structure 2015

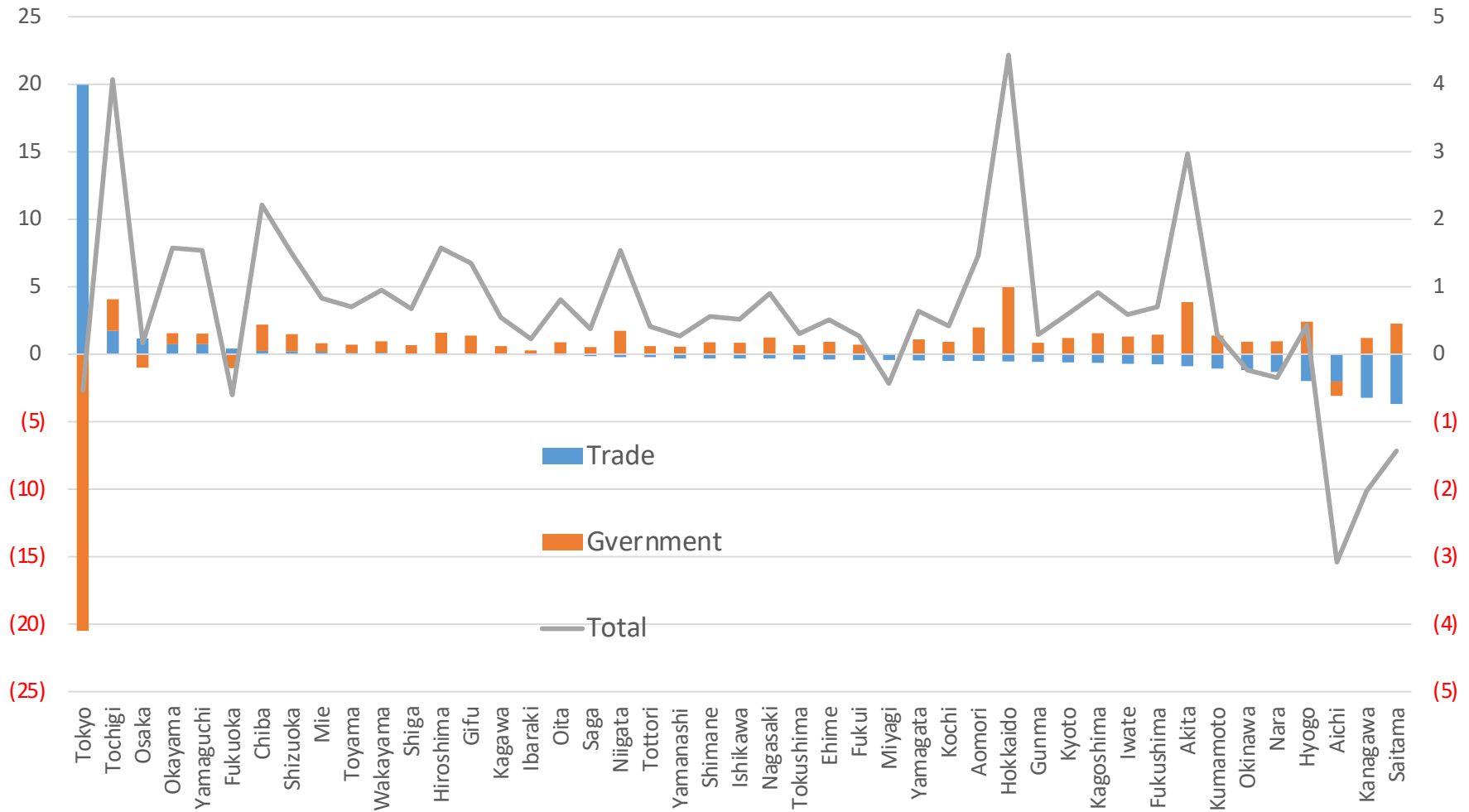
- The structure of money concentrating in Tokyo remains unchanged
- Outflows from Tohoku and southern Kyushu improve
- Outflows from Shikoku, Niigata, and Nara continue
- The imbalance sees a mix of improvement and deterioration



Money Creation/Destroy 2015



Trade and Fiscal Adjustment 2015



Summary

- 1) An imbalance of money occurs through interregional trade. Just as the reduction of net private sector assets and the reduction of net government liabilities can lead to a financial crisis, the imbalance in interregional lending and borrowing relationships causes financial and economic crisis. In Japan, this is addressed by lowering wages in rural areas, but it would be more beneficial to society to effectively raise the minimum wage through the JG program.
- 2) Government economic activities inevitably lead to the creation and destruction of money. While local governments are users of money, in Japan, the central government distributes money to local governments with strong financial guarantees. The social insurance system also contributes to the redistribution of money.
- 3) Even when combining interregional trade and government economic activities, the amount of money does not increase in any region. The background to the spread of poverty and the lack of well-being in Japan lies in the interregional imbalances. JG focuses on individuals, but it is necessary to apply JG's idea to regional economies.