Monetary Policy from New Perspectives:

Summary of the 2026 BOJ-IMES Conference

by Yusuke Oh, Daisuke Ikeda and Yojiro Ito

I. Introduction

The Institute for Monetary and Economic Studies (IMES) of the Bank of Japan (BOJ) held the 2026 BOJ-IMES Conference, entitled "Monetary Policy from New Perspectives," on May 27–28, 2026.[1] This year marked the 31st edition from its start in 1983, and participants discussed a wide range of topics from the conduct of monetary policy to economic analyses.

The conference began with the opening remarks delivered by Kazuo Ueda (BOJ). Next, Donald Kohn (The Brookings Institution) gave the Mayekawa Lecture. Markus Brunnermeier (Princeton University) delivered a keynote speech. Also, Philip Jefferson (Federal Reserve Board), Philip R. Lane (European Central Bank: ECB), and Ryozo Himino (BOJ) had a fireside chat on monetary policy and supply shocks. In the paper presentation sessions, four papers were presented on the theoretical and empirical analyses of monetary policy, by David López-Salido (Banco de España), Şebnem Kalemli-Özcan (Brown University), Iván Werning (Massachusetts Institute of Technology), and Daisuke Ikeda (BOJ).

The conference had two policy panel discussions. The first one was moderated by Takeo Hoshi (The University of Tokyo) and the four panelists, Pierre-Olivier Gourinchas (International Monetary Fund: IMF), Andrew Hauser (Reserve Bank of Australia), Lorie Logan (Federal Reserve Bank of Dallas), and Eli Remolona Jr. (Bangko Sentral ng Pilipinas), discussed monetary policy and imbalances. The second one was moderated by Athanasios Orphanides (Massachusetts Institute of Technology), and the five panelists, Piti Disyatat (Bank of Thailand), Austan Goolsbee (Federal Reserve Bank of Chicago), M. Ayhan Kose (The World Bank Group), Clare Lombardelli (Bank of England: BOE), and Koji Nakamura (BOJ), discussed monetary policy in a changing world economy.

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The conference organizers wish to express their sincere gratitude to conference participants for the thought-provoking presentations and discussions. The views expressed throughout this summary are those of the attendants and do not necessarily reflect those of their respective institutions. All remaining errors are the authors' responsibility.

1. See Appendix 1 for the program. See Appendix 2 for a list of participants; their affiliations are as of May 27–28, 2026.

II. Opening Remarks

Ueda shared some thoughts on Japan's experience with major energy shocks over the past five decades.[2] He said that supply shocks loomed large in everyone's mind and that revisiting past experience was an indispensable starting point for discussions. He identified five notable spikes in energy prices since the 1970s and noted that the impact on inflation in Japan was different in each case.

Beginning with the first oil shock of 1973, he noted that the economy had been already overheated when the shock hit, leading to a typical wage-price spiral, and stressed that wages were the most important transmission channel. He added that monetary tightening came after high inflation dynamics had already developed. He contrasted the second oil shock of 1979–80, which led to far more moderate inflation. He pointed out that not only a monetary policy response was more prompt but initial conditions were more favorable: inflation was lower; wages were more restrained; firms and labor unions learned from the first shock; earlier yen appreciation cushioned import prices; and firms had begun to improve energy efficiency and reduce oil dependence.

He noted that oil prices rose substantially in the mid- to late-2000s, but this resulted little change in underlying inflation because the Japanese economy had fallen into a deflationary equilibrium by this time. He added that higher oil prices mainly operated as a tax on real income, raising costs for firms and prices for consumers, but they did not generate a sustained rise in wages or expectations.

He turned to the recent episode, beginning around 2021, noting that an external cost shock was not temporary: price increases broadened, firms became more willing to pass on higher costs, and wage growth and inflation expectations moved up. However, he pointed out that this did not bring about an early-1970s-style wage-price spiral, with medium- to long-term inflation expectations rising only modestly from near zero to around 1.5–2%.

He noted the implication that central banks should not view oil prices in isolation, since their effects depend on wages, expectations, demand, and exchange rates, adding that the boundary between temporary and persistent inflation was not mechanical. He summarized that oil price shocks were tests of the entire inflation regime. Noting that the fifth of these significant energy price spikes was currently under way, he concluded by hoping to hear participants' views on initial conditions, inflation regimes, and the best policy response from central banks around the world.

III. The Mayekawa Lecture: Challenges to Independence: How Should Central Banks Respond—Lessons from History

Kohn delivered the Mayekawa Lecture on central bank independence, drawing on his own experience and the lessons history offers for protecting it.[3] He observed that threats to central bank independence in the United States had risen to levels not seen since the Fed-Treasury accord of 1951. He noted that these concerns extended beyond the United

2. For details, see Ueda (2026).
3. For details, see Kohn (2026).

States, emphasizing that preserving independence had become one of the defining institutional challenges of the moment.

He first explained the meaning of independence. He noted that elected representatives, recognizing that electoral incentives make it difficult to sustain a credible commitment to price stability, had delegated authority to independent central banks with clearly defined objectives. He stressed that this authority had limits in a democracy, with accountability maintained through the give and take between the central bank and elected representatives, while its independence rested on both laws and norms. He noted that protecting independence required that policy disagreement not be grounds for dismissal by the appointing authorities.

He then documented that the political pressure on the Federal Reserve had increased to levels that are unusual in scale and intensity. He added that under the broader economic environment, including rising public, fading disinflationary forces, and adverse supply shocks, the case for independence was likely to become stronger, since political incentives to demand short-run relief grows just as the need for disciplined policy becomes greater.

He explained how central banks found themselves in this situation. He said that across many democracies, populist movements had drawn strength from dissatisfaction with economic outcomes and distrust of technocrats, making central banks particularly vulnerable because they are technocratic institutions by design and their independence constrains elected leaders. He acknowledged that economic events over the past two decades—the Global Financial Crisis and the inflation surge of 2021–23—had reinforced these pressures.

He then turned to what central banks can do despite the challenges they face, focusing on three themes: focus, success, and communication. He argued that central banks should be as successful as possible, focusing on their core legal objectives while avoiding peripheral or politically contested objectives, with accountability underpinned by good communication. Drawing on the three chairs with whom he had worked most closely—Paul Volcker, Alan Greenspan, and Ben Bernanke—he emphasized that successful policy required a disciplined narrative grounded in evidence and essential policymaking virtues: flexibility and humility.

He next addressed two especially difficult challenges. First, on unsustainable fiscal trajectories, he warned that rising debt and persistent deficits could threaten independence well before outright fiscal dominance emerged, and argued that central banks should explain the economic consequences clearly while avoiding prescriptions about how elected officials should close fiscal gaps. Second, on financial stability, he argued that while responsibility is often shared across agencies, central banks should articulate their independent assessment of systemic risk candidly, bringing a distinctive system-wide perspective, even when it differs from the administration's view.

Finally, he concluded that these were difficult times for central banks, but that history offered an encouraging lesson: independence had endured because experience repeatedly demonstrated its value. He emphasized that this insulation could not be taken for granted and must be earned and re-earned through disciplined focus, institutional competence, humility about uncertainty, and a willingness to explain difficult choices clearly.

Neel Kashkari (Federal Reserve Bank of Minneapolis), as chair of the session, asked several questions before opening the floor for discussion. He first asked about accountability after five years of elevated inflation. **Kohn** answered that accountability came from institutions holding themselves to be accountable, adding that such cases included the removal of what he saw as an inflation bias in the 2020 strategic framework and the FOMC's subsequent rapid tightening once it recognized the mistake, while pointing out that the 2025 strategic review fell short of examining the tools used, in particular forward guidance and asset purchases. Asked how candidly experts should admit uncertainty without damaging credibility, he saw a balance, with holding honesty about uncertainty, could be sustained while keeping focus on long-term goals. On whether a single mandate would simplify communication, he disagreed, arguing that price stability was the path to maximum employment, in line with the pre-crisis approach of Volcker, Greenspan, and early Bernanke. On reforming the system so that only monetary policy is formally independent, he said the US was largely there already, but he expressed the need for more evidence that the Fed considers financial stability issues such as deregulation, taking a system-wide macro perspective.

Kashkari opened the floor discussion. **Lombardelli** asked how to reconcile looking through temporary supply shocks with shifting inflation expectations and credibility concerns. **Kohn** responded that price-level changes could be looked through as long as second-round effects are avoided, adding that after five years of above-target inflation, more attention should be given to the risks of second-round effects. **Hauser** asked whether central banks' communication about the economic consequence of fiscal trajectories had had a meaningful impact, even when it was clearly stated. **Kohn** acknowledged that it often did not, but added that it was the only available path, arguing that failure could erode public support for central bank independence. **Kashkari** followed up on how forcefully to communicate given uncertainty about fiscal situations. **Kohn** suggested that one could, for instance, highlight evidence showing how rising debt-to-income ratios increase interest rate burdens, crowd out private investment, and shrink fiscal space. **Gourinchas** raised the issue of potential conflicts between monetary policy and financial stability, adding that regulations might weaken ex-ante if regulatory authorities rely on central bank interventions during crises. **Kohn** expressed support for maintaining the separation principle between monetary policy and financial stability, admitting that there is no easy answer. However, he observed that conflicts were unlikely to emerge during crises, as they are typically accompanied by recessions. **Brunnermeier** asked how to balance central bank communication to the general public and to financial markets. **Kohn** emphasized the importance of keeping trying to reach out to the general public, adding that reaching legislators matters most and public outreach should continue without overreacting. He wondered if the Fed Listens events of 2018–19 had led the Fed to over-weight employment. **Kashkari** responded that they were effective and eye-opening for Washington, though whether the Fed over-learned was debatable. **Lane** asked about the idea of enshrining Fed independence in the Constitution, while commenting that ECB communication on climate was largely positive economics. **Kohn** responded that constitutional change would not happen, so institutions must build support within the present system, while commenting that although the link between climate and financial stability was a legitimate subject, the ECB appeared

to go further to support climate policy. **Remolona** raised the issue of many emerging economies' tendencies to lean on central bank financing of deficits. **Kohn** noted that this lesson had largely been learned through separating fiscal and monetary policy, and mentioned an analogy to the US, warning that calls to lower rates to ease budget pressure were dangerous. **Kose**, citing recent work quantifying the costs of a lack of independence, asked whether those costs were nonetheless under-communicated. **Kohn** said the evidence was nearly self-evident, acknowledging that there is no silver bullet to addressing communication to the general public, with focus, success and communication the only durable answer. Finally, **Åsa Olli Segendorf** (Sveriges Riksbank) asked whether data dependence monetary policy could conflict with forward guidance. **Kohn** replied that data mattered but had to be folded into a broader narrative rather than overreacting to the latest release.

IV. Keynote Speech: The AI Transformation: Implications for Finance, Money and Policy

Brunnermeier set out five "AI-forces" and discussed how they could reshape money, finance, and policy. The first force is a delegation and alignment challenge, as software moves from human-written code to large language models whose outputs are self-verified, creating a principal-agent problem marked by asymmetric understanding and asymmetric information. The second is speed, which obliges humans to delegate tasks to AI agents, leading to loss of control by humans. The third is a widening span of control that flattens hierarchies and hollows out the middle-manager pipeline. The fourth is hyper-personalization of goods, services, and prices, raising questions about how aggregate price indices are measured and what will happen to price stickiness. The fifth is "moat rupture risk," as AI erodes switching costs, weaking incumbents, and increases idiosyncratic risk.

Turning to the implications for money, finance, and policy, he argued that asymmetric execution speed, wider delegation to AI trading agents, and shared models and data would change the market structure, making regulation even more difficult. He expected fewer self-directed retail investors, more AI-managed strategies replacing static ETFs, reputation-building by those strategies, possible front-running of black-box advice, and common-mode failures—many AI strategies relying on similar models and data breaking down together—that raise systemic risk. He emphasized that regulation would become harder, mentioning the unresolved question of how to require disclosure for black-box, model-driven products.

He argued that a high-speed world would need tokenized digital money, since slow money would be driven out, and asked whether fast money would be private, such as stablecoins and tokenized deposits, or public, such as a CBDC. Drawing on Brunnermeier and Payne (2026), he set out a payment-credit-privacy trilemma in which only two of perfect credit, perfect payments, and cash-like privacy can be achieved, with the choice shaped by interoperability, ledger design, and privacy guarantees.

He then examined the big AI bet. He noted that the US financed AI innovations through capital markets, China through state-directed credit. He pointed out that the

AI-related investment of near 2.8% of GDP in the US was large but not unprecedented, and gains had been concentrated in a few stocks, as in past innovation cycles. He continued that financing was shifting to debt such as private credit, with data-center financing structures being reminiscent of special purpose vehicles observed in the run-up to the global financial crisis of 2007–09.

On repricing of AI technologies, he contrasted a foundation-model scenario, where a few firms become dominant and earn rents, with a commodification scenario, where many firms compete with rents broadly shared, followed by a major repricing. He also mentioned the possibility of a slow productivity gain scenario, and discussed its implications for US fiscal sustainability and US safe-asset status, adding that AI technologies could segment the finance world by building digital currency areas. He concluded that in this challenging time the only way to have a resilient outcome was to stay agile and maintain the reputation of institutions such as central banks.

From the floor, **Gourinchas** asked two questions. First, he asked why competition among AI firms could be disruptive instead of leading to more efficient investment and allocation. **Brunnermeier** replied that the main threat was asymmetry, since some actors will gain large advantages in analysis, information, and speed. Second, **Gourinchas** asked about the risk of AI being weaponized to attack the financial system. **Brunnermeier** agreed that cyber risk was enormous and under-emphasized, warning that institutions must be ready.

Lane asked whether rents were more likely to accrue to foundation-model firms or to those applying AI across business lines. **Brunnermeier** responded that the distribution of rents was largely up to regulators, who could enforce commodification of foundation models, for example, through qualified public procurement.

Building on Brunnermeier's observation that slower money might be displaced by faster, tokenized money, **Tao Zhang** (Bank for International Settlements) asked, about the implications for central banks. In particular, he asked whether central banks—especially those in medium-sized economies that are largely adopters of AI technologies—risk becoming less relevant if public money cannot keep pace with private-sector innovation. **Brunnermeier** replied that CBDC arrangements could keep private money efficient, with public money prepared to address a fallback against cyber risks.

Lombardelli returned to inflation and the value of money, asking what happens to inflation indices and to inflation expectations if agents trade highly personalized goods at personalized prices. **Brunnermeier** responded that price discrimination could grow, reducing price stickiness, with caveats that these were speculative and meant to stimulate discussion.

V. Fireside Chat

Himino hosted the fireside chat and welcomed Jefferson and Lane as guest speakers. He invited each speaker to make brief remarks on monetary policy response to supply shocks, after which he asked about the lessons learned from past episodes and about central bank communication.

Jefferson first flagged three global developments: rising energy prices, the rapid

advances in AI, and trade disruptions. He noted that elevated energy prices weighed heavily on net importers such as Japan, while less on net exporters such as the US. He saw US growth as solid but moderating, the labor market as broadly stable with risks skewed somewhat to the downside, and disinflation as stalled largely because of tariffs. He reaffirmed his commitment to returning inflation to the 2% target, adding that the current policy stance was well positioned to respond to economic developments.

Lane argued that supply shocks were not a one-size-fits-all category, distinguishing anticipated trends such as demography, the green transition, and future AI gains, which affect demand today with supply capacity changing in the future, from disruptions in the energy sector, which affect both demand and supply immediately. Even if the acute phase of such disruptions passed, he cautioned, repositioning around inventories and energy diversification might persist, and near-term supply capacity could fall well below long-term potential, which is one of the lessons from the 1970s.

Regarding the question about the lessons learned from past episodes, **Jefferson** pointed out the importance of anchored inflation expectations, policy credibility, and economic structure, noting that lower energy intensity and exporter status made the current shock milder than in the 1970s in the US. **Lane** compared the current shock with past episodes, including 2022 and the 1970s, and emphasized a nonlinear inflation response in which larger shocks have disproportionately stronger effects, adding that the current shock could be less acute as it could be smaller than that of 2022.

Regarding the questions about central bank communication, **Lane** stressed an overriding medium-term commitment to returning inflation to the target, staying adaptive meeting by meeting, and avoiding both complacency and overreaction. **Jefferson** added that policymakers should remain humble with regard to first-round effects, which monetary policy cannot offset, while acting to prevent second-round effects and a wage-price spiral.

From the floor, **Orphanides** pointed out that the effect of supply shocks on consumption would differ substantially between exporting and importing countries and asked how to deal with communication and policy. **Lane** replied that granular data and targeted fiscal support for the lowest-income households were key, while acknowledging that communicating distributional issues is challenging; **Jefferson** noted that the US faced not only an energy shock but also AI-driven investment, emphasizing on monitoring the second-round effects while keeping eye on the surge in investment demand. **Brunnermeier** asked whether policymakers differentiated supply shocks by upstream or downstream position in the production network, by the pricing power of the sector hit, and by supply-side uncertainty. **Lane** replied that the ECB used a production-network approach, while pointing to differences in energy pricing such as short-term or long-term contracts, noting that uncertainty was pushing firms toward larger inventories. **Ueda** asked whether repeated food and energy shocks, each a temporary price-level move but cumulatively lifting average inflation, might justify targeting a core rate slightly below 2% to allow for upward shifting, and what the welfare and communication implications would be. **Lane** replied that the ECB's strategy review last year had focused on various supply shocks and concluded that inflation volatility would rise, with no conclusion about the average inflation; **Jefferson** added that price stability at 2% was itself a source of broad-based, inclusive growth.

Olli Segendorf asked whether the less flexible European labor market warranted different policies and more severe second-round effects. **Lane** replied that second-round effects were not only about inflation expectations but about readjustment in wages that could take place when an increase in the cost of living due to external factors is not felt fair; **Jefferson** said that the resilience of the US labor market made returning inflation to 2% the appropriate focus.

VI. Paper Presentation Sessions

A. Optimal Monetary Policy with Uncertain Private Sector Foresight[4]

To motivate his research, **López-Salido** highlighted the risk of de-anchoring inflation expectations against the backdrop of persistent post-pandemic inflation, the energy price shock following the Ukraine conflict, and renewed fears about medium-to-longer run expectations drifting from target. He noted that inflation scares, episodes in which long-run inflation expectations drift away from target, were an old topic usually analyzed under rational expectations, but argued that models placing expectation formation at the center of the transmission mechanism offered a fresh angle. He then posed a question of how a central bank should conduct monetary policy when facing uncertainty about expectation formations in the private sector and the risk of inflation scares.

To address the question, he embedded finite-horizon planning by private agents into an otherwise standard three-equation New Keynesian model. In the model, households and firms plan a fixed number of periods ahead and, beyond that horizon, form beliefs through adaptive learning from past data. The planning horizon is heterogeneous, either four quarters or 32 quarters, with their relative shares varying over time. In addition, agents perceive that the central bank has the same planning horizon, even though it actually has an infinite planning horizon. Because of adaptive learning and the misperception, agents use realized inflation, rather than the announced target, to form long-term inflation expectations. Using the model estimated using the US data, he studied optimal discretionary policy.

He presented three findings. First, the model fits US data well on several dimensions. It captures the gradual decline in the underlying trend of inflation over the 1980s and early 1990s and reproduces the documented pattern of inflation forecast errors, which under-react to shocks on impact and over-react thereafter. Second, the optimal targeting rule—the condition relating optimal policy to inflation and the output gap—contains the familiar leaning-against-the-wind term plus an additional preemptive term, reflecting the incentive to prevent long-term inflation expectations from de-anchoring. This makes policy more aggressive on average and reverses the Brainard attenuation principle, the classic result that uncertainty should make policy more cautious. Third, simulations calibrated to the March 2023 FOMC projections showed that the optimal discretionary policy that guards against inflation scares would have anchored inflation more tightly around 2% with less dispersion.

As a discussant, **Olli Segendorf** praised the paper for elegantly combining rationality, learning, and optimal policy under uncertainty and for speaking directly to post-

4. For details, see Gust, Herbst, and López-Salido (2025).

pandemic concerns. She observed that central bank forecasting frameworks typically assumed inflation returns to target, and valued the paper for forcing policymakers to take alternative, de-anchoring inflation regimes more seriously. From a practical central banking perspective, she asked whether aggressive policy stance is the only way for preventing inflation scares, noting that Swedish long-run expectations had stayed anchored despite large shocks. She pointed out that communication, including published policy-rate paths and alternative scenarios, had already served as a complementary anchoring device in Sweden. She cautioned that precautionary tightening may generate non-linear risks to the real economy and lead central banks to underweight recession risk, especially when inflation is supply-driven, since tightening could produce large output losses. She further suggested distinguishing informed from uninformed expectations, since households often report high inflation expectations with limited forecast accuracy, and asked whether monetary policy should respond symmetrically to the two. She noted that the frequency of firms' price changes varied over time in practice, which could be taken into account. She also pointed to a tension in the model's estimate of longer planning horizons during the high-inflation 1970s: if higher inflation made agents more attentive, she questioned why their expectations would not by the same logic have become better anchored.

López-Salido agreed that the issues warranted further work. He added that he was now trying to connect inflation expectations with attention by endogenizing the planning horizon through state-dependent cognitive costs, emphasizing the need to identify the mechanism that drives inflation expectations by combining expectations data with micro price data. He agreed that household and firm expectations should be distinguished, and noted that the exercise was deliberately simple, relying on static discretion rather than commitment, which he hopes to address in future work, while reiterating that the framework calls for a tighter policy on average.

From the floor, **Orphanides** commented that the paper valuably revived Goodfriend's (1993) insight on anchoring inflation expectations. He asked whether communicating an inflation target could improve anchoring, citing learning models in which a known target delivers significant benefits over an unknown one—one of the theoretical cases for an inflation-targeting framework. **López-Salido** replied that in his setting agents already know the target but, beyond their planning horizon, rely on realized inflation to gauge how far it has drifted from 2%, adding that the central bank does not know how agents assess the target's credibility given their limited foresight, so a lack of credibility about the long-run target would generate similar preemptive incentives. He also noted that this result had emerged naturally in a setting that formalized Goodfriend's ideas.

B. Global Networks, Monetary Policy and Trade[5]

Kalemli-Özcan examined how monetary policy should be conducted in this geopolitically fragmented, interdependent world, where protectionist tools such as tariffs, subsidies, industrial policy, and trade and investment restrictions have risen sharply since 2020. Invoking the Kindleberger stabilizer view and the Hirschman weaponizer

5. For details, see Kalemli-Özcan Soylu, and Yildirim (2026).

view, she argued that global trade and finance networks could deliver stabilization and weaponization at the same time. She continued that a central question was whether geopolitics change how central bankers think about monetary policy, with an answer hinging on how trade and financial portfolios reshape in a fragmented world, how they affect currencies and exchange rates, and how they alter the international transmission of shocks.

To address these challenges, she built an N-country, J-sector global New Keynesian open economy model that incorporates trade, production, and financial networks, nominal rigidities, and incomplete markets with non-zero net international investment positions. The model features two analytical objects. The first is a risk-sharing wedge—the departure from full international risk-sharing—whose sign determines whether a tariff-imposing country gains or loses. The second is a New Keynesian open economy propagation matrix, a dynamic analogue of the Leontief inverse, that governs inflation persistence through real marginal costs. She incorporated tariffs implemented as of March 2026 into the model that is calibrated using data on firm-level trade, investment, and supply chains.

She explained that tariffs act as triple shocks—demand, supply, and financial wealth-transfer shocks, so whether a country gains or loses is a general equilibrium outcome of these effects. She argued that with global trade and finance networks central banks would face a greater tradeoff between inflation and output stabilization in response to an increase in tariffs, adding that even a look-through stance—premised on a one-time price-level jump that would quickly subside—would increase inflation persistently.

Turning to actual tariff data, implemented March 2026 tariffs are modest, raising inflation about 0.4 percentage points and persistently lowering output in the US. She discussed why the dollar depreciated after "Liberation Day," arguing that a rise in tariff volatility exerted depreciation effects that are greater than the direct appreciation effects of tariffs. She further showed that the general-equilibrium adjustment produced substantial trade diversion toward Europe, and a counterfactual in which the full Liberation Day tariffs took effect would have produced a global stagflation. She concluded that heterogeneous central bank responses reopened the case for international coordination, since national policies and endogenous exchange rates cannot fully offset network-borne distortions.

As a discussant, **Ippei Fujiwara** (Keio University/The University of Tokyo) praised the paper for its relevance to the current policy debate about tariffs, inflation, exchange rates, and monetary policy spillovers as well as its rich global New Keynesian open-economy model with input-output linkages and incomplete markets. He asked what determines the risk-sharing wedge, which determines which country gains or loses in response to a tariff shock. He added that estimating the response of the economy including the wedge to a tariff shock would be useful to discipline the model, and also asked whether the paper's conclusions would change if the wedge were instead generated by explicit financial frictions as in the previous literature. He further questioned if the model produces realistic exchange rate and UIP dynamics after a monetary shock. In closing, he said that the paper would become a benchmark for studying the effects of tariffs at business cycle frequencies, integrating monetary

policy, international finance, and global trade linkages.

In response, **Kalemli-Özcan** noted that the model matched the 2018 dollar appreciation, adding that to fit the 2025 depreciation as well, the UIP wedge, microfounded by tariff volatility in a companion paper, was needed. She emphasized that the New Keynesian and balance-of-payments blocks of the model could be solved separately by taking portfolio costs to zero, which eventually pins down the risk-sharing wedge, a key variable that determines the winner and loser of a tariff shock.

From the floor, **Lane** confirmed from ECB modeling that networks amplify and prolong supply shocks while diminishing demand shocks, but emphasized that the network was both opportunity and risk, since Europe could substitute away from Russian gas in 2022 whereas a truly global shock leaves nowhere to turn. **Kalemli-Özcan** responded that her model allowed substitution at the final-good layer and complementarity among inputs but did not easily capture extensive-margin production shifts such as Germany's rapid LNG buildout. **Gourinchas** asked whether the trade network or the financial network matters most, noting that the paper's own results suggested non-zero net foreign asset positions were quantitatively important, yet the model traded only US bonds on the financial side. He suggested testing the model against the empirical responses of the components of net foreign assets. **Kalemli-Özcan** replied that the model emphasized both the trade and financial networks but the financial side was kept simple, adding that the trade network was retained because the risk-sharing wedge has a trade component as well as a valuation component, and the two can move in opposite directions, so a purely financial formulation would miss the trade channel that matters especially under sectoral tariffs. **Etsuro Shioji** (Chuo University) asked about the pricing currency of traded goods and of international liabilities and whether the results are sensitive to them. **Kalemli-Özcan** answered that the model used hybrid currency pricing disciplined by dollar- and producer-pricing shares with sectoral retail heterogeneity, and that the net international investment position was effectively in dollars alongside a local-currency bond, yielding realistic and well-disciplined valuation effects.

C. Global Price Shocks and International Monetary Coordination[6]

Werning examined the optimal monetary policy response to global supply shocks, motivated by the post-COVID inflation in which goods price surges spread to services and wages across many countries. He framed a puzzle as why economies fare worse under global supply shocks than under comparable local ones, and posed two questions: Is uncoordinated policy really too contractionary, as the traditional view suggests, once accounting for the endogeneity of world commodity prices? Is there a case for international coordination?

To address these questions, he built a deliberately simple small open-economy model, consisting of a continuum of symmetric, price-taking small open economies, with a non-labor input labeled as "oil" that enters production with limited substitutability. He explained that nominal rigidities were introduced in both non-traded prices and wages to break divine coincidence: the property that stabilizing inflation automatically closes the output gap, leaving no policy trade-off. He noted that the steady state was ef-

6. For details, see Guerrieri, Lorenzoni, and Werning (2025).

ficient, and terms of trade effects were assumed away so that coordination gains could not stem from that channel. He then compared an uncoordinated Nash equilibrium, in which each country takes the world oil price as given, with a coordinated world planner who internalizes the endogeneity of the oil price.

As a main result he highlighted an expansionary bias: uncoordinated policy is too loose rather than too tight, leaving the world with excess inflation and output. He explained that each country perceived a flatter Phillips curve than the planner because it ignores the endogeneity that a decrease in global demand due to monetary tightening lowers oil prices, overturning the traditional wisdom that non-cooperative monetary policy is excessively contractionary. He added that the oil wedge arising from wage rigidity also generated inefficiency that can be addressed by the planner. He stressed that a distortion in the world Phillips curve and the oil wedge gave rise to an expansionary bias under the same plausible condition: low substitution between oil and labor. Drawing an analogy with optimal currency area arguments, he noted that dollarization or a currency union pools monetary policy, automatically internalizing the oil price externality, and thus would be welfare-improving.

As a discussant, **Kosuke Aoki** (The University of Tokyo) praised the paper as clean and insightful, emphasizing that it overturned two conventional views: the look-through prescription for commodity shocks and the presumed contractionary bias. He focused on how to implement the planner's outcome in practice when coordination at business cycle frequency is difficult. He proposed three options within the framework of a loss function: targeting a broader CPI measure rather than core inflation, appointing conservative central bankers in the spirit of Rogoff (1985), and a Pigouvian tax on oil. He showed that a broader CPI mandate can replicate the planner's outcome only for an optimally chosen output weight, and that a conservative central banker does so precisely when each country perceives a flatter Phillips curve. He noted that the Pigouvian tax fails under the loss function but might work under the full welfare analysis. He cautioned that each proposal would merely relocate the coordination problem to another dimension.

Werning welcomed these ideas, noting he had not thought enough about achieving coordination through the back door, which might prove easier than coordinating after every shock. He acknowledged that the Pigouvian option was likewise new to him, and expressed interest in developing it further. He cautioned that reweighting mandates or appointing conservative bankers would help against global shocks but could worsen responses to domestic shocks, likely leaving policymakers at a second best, and stressed that even setting coordination aside, the framework explained why a global shock is inevitably worse than a domestic one.

From the floor, **Hibiki Ichiue** (Keio University) asked why both price and wage rigidities are needed to break divine coincidence, whereas a simple New Keynesian model breaks it under a cost push shock with price rigidity alone. **Werning** replied that an oil or productivity shock, unlike a cost-push shock, reflects genuine resource scarcity rather than an artificial distortion; with price rigidity alone it therefore creates no policy trade-off, so wage rigidity is needed to introduce the additional wedge that breaks divine coincidence. **Goolsbee** asked whether positive supply shocks such as new technologies are symmetric and whether the implication is that policy would be

too tight. **Werning** answered that the model was formally symmetric so all signs invert, though he viewed negative supply shocks as sharper in practice, and summarized the message as policy reacting too little absent coordination. **Gourinchas** agreed with the conclusion and asked how fiscal policy interacts, observing that energy subsidies mute domestic price responses, export the adjustment abroad, and, by suppressing headline inflation, can lead central banks to tighten even less, deepening the expansionary bias. He suggested that the combined implication was for monetary policy to act more forcefully while fiscal energy support is scaled back. **Werning** agreed that subsidizing oil would discourage tightening, making world oil demand elevated and its price high, adding that if all countries subsidize simultaneously, everyone would worse off. **Kose** asked how asymmetry in country size would affect the main result. **Werning** replied that larger countries or coordinating blocs would partially internalize the externality, moving closer to the optimum, much like a currency area.

D. Monetary-Fiscal Nexus and Unintended Equilibria[7]

Ikeda observed that inflation had remained persistently above target in many countries despite inflation targeting frameworks, while government debt had risen worldwide. He mentioned that reflecting this development recent work had turned to heterogeneous agent New Keynesian (HANK) models with non-Ricardian households, because government bonds are net wealth for such households so that rising debt is expansionary. Noting that the literature had mostly focused on targeted equilibria with inflation fluctuating around 2%, he posed the question of whether monetary-fiscal interactions can generate unintended, non-targeted equilibria that push inflation away from a target persistently.

To explore the question, he built an analytically tractable perpetual youth overlapping generations (OLG) version of the New Keynesian model with non-Ricardian households and monetary-fiscal interactions. He explained that the model abstracted from nominal rigidities and fundamental shocks for simplicity, adding that the model nests the representative agent model as a special case.

Analyzing the model, he reported the following results. First, with non-Ricardian households, multiple steady states may prevail. A targeted steady state always exists, but a high inflation steady state can emerge when the stabilization stance of monetary or fiscal policy is relatively weak. The high-inflation outcome is driven by a self-reinforcing cycle: a rise in inflation prompts the central bank to raise interest rates, inducing the fiscal authority to issue more debt, and households who find government bonds as net wealth increase consumption, putting upward pressure on inflation. Second, analyzing local dynamics, he showed that when a high inflation steady state emerges, it exhibits determinacy while a targeted steady state loses determinacy, so that the economy might settle persistently at elevated inflation. Highlighting these two results, he argued that there might be a risk of persistently high inflation depending on monetary-fiscal interactions. Third, he examined the existence of self-fulfilling deflationary steady state, showing that with non-Ricardian households it exists with determinacy—a result that contrasts with standard New Keynesian models, where such

7. For details, see Ikeda (2026).

states are always indeterminate. He argued that this model had the potential for explaining Japan's low inflation experience from the late 1990s to early 2020s.

As a discussant, **Fernando Martin** (Federal Reserve Bank of St. Louis) praised the timely paper and offered a simplified analytical representation of the model. Showing the various models of non-Ricardian households, he pointed out that non-Ricardian households were necessary but not sufficient, and that what matters is the steady state real interest rate that depends on the quantity of debt. He also noted that monetary policy stance still matters: a sufficiently aggressive monetary policy response keeps the economy in the stable region around the targeted equilibrium. Examining US data, he argued that expansive and unresponsive fiscal policy combined with a monetary policy that has been slow to respond could pose a risk of persistently high inflation according to the model. He acknowledged that central bank accommodation and fiscal expansions during the global financial crisis of 2007–09 and the COVID-19 pandemic had supported the economy, but stressed that inflation was ultimately the cost of deficits not financed by taxes. He concluded that restoring fiscal responsiveness was an open question for the future.

Ikeda welcomed the simpler analytical representation and agreed that non-Ricardian households were necessary but not sufficient for the existence of multiple steady states. He raised a further case in which both policy responses were weak yet the targeted steady state stayed determinate, adding that inflation becomes fiscally driven so that inflation and output respond more strongly to debt.

From the floor, **Werning** asked how much the result depends on HANK rather than merely turning Leeper's (1991) previously ignored explosive region into a finite steady state, and urged care on income effects since debt held by foreigners or wealthy low MPC agents might reverse the consumption response. **Ikeda** replied that he studied only local dynamics, viewing the high inflation steady state as intermediate between the targeted state and explosive hyperinflation. He conceded that higher debt might not stimulate consumption in practice, as Japan's experience suggests, adding that a natural next step would be to examine whether quantitative OLG and HANK models exhibit non-targeted equilibria. **Brunnermeier** asked how critical the zero lower bound is, whether the intuition for the deflationary steady state parallels Benhabib, Schmitt-Grohé, and Uribe (2001), and whether an R-versus-G (the real interest rate versus the growth rate of the economy) connection applies. **Ikeda** noted that the paper focuses exclusively on R greater than G, and that while the deflationary steady state shares the same intuition as Benhabib, Schmitt-Grohé, and Uribe (2001), non-Ricardian households make it determinate rather than indeterminate as in standard New Keynesian models. **Fujiwara** asked whether any monetary policy rule, such as a history dependent one, could avoid the multiplicity. **Ikeda** replied that he had not explored whether any rule could eliminate deflationary or high-inflation steady states, and expected multiple equilibria to persist under alternative specifications. **Shioji** questioned the realism of a low survival probability assumed in the model, and asked whether a discontinuous monetary rule could avoid multiplicity. **Ikeda** acknowledged that only a simple rule had been studied and whether a richer specification could eliminate multiplicity remained open, while noting that the OLG framework can be interpreted as a model of heterogeneous agents subject to borrowing constraints.

VII. Policy Panel Discussion 1

In the Policy Panel Discussion 1, moderated by Hoshi, four panelists, Gourinchas, Hauser, Logan, and Remolona, discussed monetary policy and imbalances.

A. Remarks by Moderator and Panelists

Hoshi opened the policy panel discussion by noting that global imbalances, prominent before the global financial crisis and largely quiet since, had returned to the agenda of the G7, the G20, and the IMF. He argued that the underlying economics remained unchanged, with saving and investment still the analytical anchor, even as the world had grown more financially integrated, more capital-mobile, and more shaped by geopolitical tension and industrial policy. Drawing a parallel with the 1980s, he cautioned that China was now far larger relative to the world than Japan ever was, and that external imbalances reflected deeper domestic conditions rather than bilateral trade and could not be resolved by the exchange rate alone. He invited the panelists to consider how monetary policy should respond to such structurally and geopolitically driven imbalances, how resilient markets can be, and whether the international monetary system is fragmenting.

Gourinchas reported that global imbalances have been rising at an increasing rate since the pandemic, and that today's episode carried a concern absent from the pre-crisis debate: growing evidence that surpluses, particularly from China, reflect industrial policies that have distorted the manufacturing sector beyond efficient scale—producing the overcapacity that China itself acknowledges—and providing one rationale for the recent US turn to tariffs. Using the saving minus investment framework, he stressed that global imbalances were not inherently undesirable and that the relevant unit was national rather than bilateral balances. On the drivers, he found tariffs to have very limited durable effects on current accounts and micro industrial policy—subsidies to particular firms or sectors—to show little systematic link to balances. He continued that what can generate sizeable surpluses was macro industrial policy: financial repression, forced savings, and FX intervention deployed to compress domestic consumption and channel resources into the export sector. On rebalancing, he argued that coordinated adjustment would be best but unlikely, and that unilateral action by one large economy would raise global real interest rates and create adjustment incentives elsewhere. On monetary policy, he aligned himself with Hoshi: engineering a nominal currency appreciation would only generate deflation without resolving the underlying imbalances. Venturing beyond current-account imbalances, he drew attention to imbalances in control over critical resources, noting that the global economy had choke points such as rare earths and the Strait of Hormuz. He cited an IMF study finding that a disruption to rare earth supply, with mining, refining, and processing all heavily concentrated in China, could have sizeable effects on other economies given the low substitutability of these inputs.

Hauser recalled that there had been many prior attempts to identify the causes of, and possible solutions to, global imbalances. To take one important example, the multilateral consultation on global imbalances coordinated by the IMF in 2006 had produced commitments from the major players—US fiscal consolidation, Chinese re-

balancing toward consumption with greater exchange rate flexibility, and European structural reform—that closely resembled today's prescriptions. Imbalances, he observed, were not necessarily malign in themselves: indeed they could deliver genuine benefits through efficient capital allocation and risk sharing. But excessive imbalances risked a disorderly unwind. The question then was what should count as 'excessive.' He pointed out that the scale of the risk was elevated: imbalances were closed to 150-year highs, financial stock effects now matter more than trade flows, and markets have proved willing to fund large debt stocks well past thresholds once considered dangerous, raising the danger of a non-linear adjustment triggered by a loss of confidence or a reappraisal of the AI boom. Speaking for a small open economy (SOE) central bank such as the RBA, he said Australia sat in the front row as a major beneficiary of globalization, but was relatively powerless to address the factors underpinning excess imbalances. In that light, the priority for SOE central banks was primarily to build resilience through better modelling, smarter strategy in the face of uglier trade-offs, and stronger domestic crisis tools.

Logan began with energy markets and shared views on global oil imbalances. She noted that the closure of the Strait of Hormuz had cut global oil supply by more than 10%, nearly 13 million barrels per day, with inventory drawdowns and rising US exports filling much of the shortfall so far, adding that in the last week of April the US had become a net exporter of oil for the first time since 1943. Mentioning the Dallas Fed's latest survey, she said that industry leaders saw little scope to increase oil production because of capital discipline, tight labor, and limited gas pipeline capacity. She then pointed out that with supplies highly constrained, if the shipping through the strait would not return to the original level, world oil and natural gas consumption would fall. She turned to financial imbalances, noting that, unlike energy where physical limits force a rough rebalancing, financial imbalances can persist for years. She pointed out that Treasury issuance had greatly outpaced dealer capacity since the global financial crisis, making the markets vulnerable to shocks as evident in the March 2020 Dash for Cash. She welcomed steps to strengthen Treasury market resilience while urging a richer toolkit and clearer separation of market-functioning support from monetary accommodation. Finally, she mentioned a slower force, the global decline in fertility to below replacement across major regions, which she said would reshape labor markets, fiscal positions, the neutral rate, and the meaning of a balanced economy as growth approaches zero.

Remolona observed that the current oil price shock exacerbated the current account deficit of the Philippines while raising inflation. He noted that the peso was overvalued a few years ago with the adjustments of the exchange rate toward depreciation being frustratingly slow. He pointed out that exchange rate adjustment alone might prove insufficient to address the current account deficit. Invoking Dornbusch's law and recalling the 1997 Asian crisis, he voiced concern that the current shock could become a tipping point. He shifted attention from the trade component to saving and investment, noting that with a very young population (median age 26) the Philippines had low saving and strong investment needs, which are eventually financed by borrowing abroad, leading to the current account deficit. He added that higher interest rates might eventually help, though the central bank's policy rate had focused on price stability rather than on the

current account deficit.

B. Discussion between the Moderator, Panelists and Floor Participants

Hoshi opened the discussion by returning to the point, made by both Gourinchas and Hauser, that imbalances are not necessarily harmful. He asked why deficit countries often see imbalances problematic.

Gourinchas replied that the main reason would be an asymmetric perception that surpluses and strong currencies are good while deficits and weak currencies are bad, adding that the pressure to adjust falls disproportionately on deficit countries, which risk losing market financing as they accumulate debtor positions, whereas surplus countries face no comparable imminent pressure beyond the possibility of lending into investments that are never repaid. Reflecting on Logan's point about demographics, he added that demographic divergence would be shrinking as a driver of imbalances because the world is becoming more like Japan, leaving less asymmetry to generate surpluses and deficits.

Hoshi then asked in which areas the greatest risk of a sudden, non-linear adjustment lies, for example, in sovereign bond markets or non-bank finance. **Logan** identified sovereign bond markets as a chief concern, given rising government debt and limited dealer intermediation capacity, noting progress on transparency and central clearing but much more work to be done. She also flagged stretched asset valuations, especially if AI productivity assumptions do not realize. **Hauser** said it was hard to explain why markets continued to fund some of sovereign debt stocks at the prices seen recently, with rises in term premia muted. He mentioned the Bank of England's intervention during the 2022 liability-driven investment (LDI) crisis as a possible toolkit, while questioning whether constructive ambiguity still works, that is, whether a central bank should leave deliberately unspecified whether and when it would step in to support markets. **Remolona** stressed that the biggest threat is to central bank independence, since it is challenging to convince the general public that financing projects through money creation eventually brings inflation, a danger especially acute for emerging economies. **Gourinchas** echoed concern about worsening fiscal trajectories and the eroded willingness to consolidate since the pandemic, and pointed to the erosion of the US exorbitant privilege. Reflecting on Hauser's point, he noted that despite Treasuries come to be seen as no longer uniquely safe but merely one safe asset among others, investors kept buying them as a second-best alternative. Regarding non-linearities, he argued that the deepest danger is a financial risk event that is unaccompanied by the usual flight to the dollar.

Asked by **Hoshi** whether declining the exorbitant privilege means the world must contemplate a post-dollar system, **Gourinchas** responded that no sudden displacement was in prospect and that the dollar-based system remained strong, adding nonetheless that risk scenarios were worth exploring, since a typical financial stress event features a dollar shortage that the dollar liquidity swap lines are designed to fill, but a different pattern would require rebuilding global liquidity provision.

Hoshi next asked Logan about energy and the investment needs of the AI industry, including their implications for interest rates and imbalances. **Logan** responded that US power demand had risen sharply, with electricity growth of 2% in 2025 af-

ter two essentially flat decades, driven by data centers and electric vehicles, and that this was lifting investment demand. She pointed out that the significant demand suggested a higher neutral rate, with financial conditions appearing to be somewhat loose. **Remolona** added that AI has been a powerful force behind stock market gains across the value chain in Taiwan, Korea, and elsewhere in Asia, more than offsetting the oil price shock for those economies.

From the floor, **Kalemli-Özcan** asked about an emerging view that multinational firms and sectoral imbalances, particularly in energy and semiconductors, are now the more important driver of global imbalances. **Gourinchas** responded that he doubted the view since any sectoral or multinational effects must ultimately show up in national saving and investment. While multinationals and the location of FDI might shape the macroeconomic variables of some small countries, he argued that they would not account for the imbalances of large economies.

Kose asked whether the case for cooperative solutions could lead to an orderly resolution of imbalances and what might prompt such cooperation. **Gourinchas** clarified that a coordinated solution would be best but that he was skeptical of significant progress, adding that unilateral adjustments such as US fiscal consolidation, although not as good as coordination and not necessarily favorable for growth, would generate spillovers in the right direction by lower global interest rates increasing the pressure on China to adjust. Progress, he argued, should not wait for an unattainable joint agreement but can begin when countries act on their own domestic interest.

Brunnermeier asked whether increasing returns to scale might justify China building imbalances strategically. **Gourinchas** acknowledged the validity of the argument and pointed to Chinese successes in electric vehicles and solar panels, but noted that aggregate TFP had grown slowly and the marginal return to capital had collapsed, signs of resources being misallocated at scale.

Disyatat questioned how to move away from the IMF external balance assessment and the associated US currency-manipulator framework, given that the exchange rate is not the main corrective instrument. **Gourinchas** agreed to the point and explained that the external sector report first assesses excess current account positions and then translates them into estimates of currency over- or undervaluation, with this second step regarded as insufficiently robust, although the assessment remains part of its mandate.

Kazumasa Iwata (Japan Center for Economic Research) asked whether removing China's capital mobility restrictions—which, like Japan's in the 1980s, are tighter on outflows than on inflows—might widen global imbalances rather than narrow them, and how the US prohibition of a central bank digital currency affects demand for safe assets in light of concerns about the sustainability of the US external position. **Gourinchas** responded that if China lifted all controls, capital would flow out, the currency would depreciate sharply, and the surplus would grow even larger.

VIII. Policy Panel Discussion 2

In the Policy Panel Discussion 2, moderated by Orphanides, five panelists, Disyatat, Goolsbee, Kose, Lombardelli, and Nakamura, discussed monetary policy in a changing

world economy.

A. Remarks by Panelists

Disyatat argued that supply shocks now defined the policy environment. He identified three features of the shocks: they are sectoral, implying relative price changes rather than generalized inflation; they are persistent because structural trends such as AI, demographics, and the climate transition feed through production networks; they arrive as a confluence that complicates signal extraction. He argued that central banks therefore had a more limited ability to steer inflation within narrow targets, pointing out the risk of excessively fine tuning to hit narrow targets as inflation deviates from targets more often and more persistently both upward and downward, even while staying anchored within the low inflation regime. In such situations, he argued that central banks would face communication difficulties and political pressure that can undermine central bank independence, mentioning the experience of Thailand where inflation peaked at 8% in August 2022 but fell below 1% within a year and had since been close to zero. He supported inflation targeting with greater flexibility and more tolerance for the size and duration of deviations, stressing that anchoring occurs at the regime level rather than at a precise numerical rate.

Goolsbee reflected on the implications of stronger productivity growth, drawing on analysis at the Chicago Fed. He observed that US productivity had run substantially faster than the pre-COVID trend, adding that, interpreted broadly, the acceleration appeared concentrated in industries that develop and use AI. He cautioned that the 1990s intuition, in which higher productivity permits lower inflation and lower rates, applies when productivity gains are unanticipated, whereas anticipated future productivity gains can raise the optimal rate today through a wealth effect that pulls future demand and stimulates the economy. He pointed out that central bankers should monitor activity premised on future growth, such as consumer borrowing, elevated equity valuations, and large data center investment that drives up the cost of electricity, chips, and construction. He added that because general purpose technologies eventually spread beyond the country of origin, the same dynamics would become more pronounced in Japan and Europe, and that negative supply shocks would compound it by reducing potential output in the near term.

Kose reflected on the implications of the changing nature of shocks for monetary policy, drawing on recent work with Kristin Forbes and Jongrim Ha (Forbes, Ha, and Kose 2026). He recalled that during the Great Moderation domestic demand shocks dominated, where stabilizing inflation also contributes to stabilizing output, but during the past two decades the succession of global shocks had created sharp swings and difficult trade-offs between stabilizing inflation and output. He argued that global shocks increasingly shaped domestic monetary policy, stressing that they differ fundamentally from domestic shocks. Using an econometric decomposition across 13 advanced economies, he reported that global shocks now accounted for roughly half of the variation in policy rates, up from less than a fifth in earlier decades, and that they were more supply driven, more volatile, more frequent when large, and more persistent and more asymmetric upward in their effects on inflation. Echoing Kohn, he urged humility and suggested that policy design would benefit from giving global shocks greater attention

in models and communication, including through scenario analysis.

Lombardelli emphasized the supply-based character of the current shocks, pointing out the frequency of such supply shocks: the next arrives before the previous shock has subsided. She noted that UK inflation had averaged above target for five years and had peaked near 11%, and she stressed the persistent impact of repeated shocks on real incomes and the resulting damage on aggregate demand. She observed that as a medium-sized open economy and net energy importer with a very large financial sector, the UK had been hit hard, and she described uncertainty over prices set by firms facing squeezed margins and weak demand. She highlighted the BOE's growing use of scenarios following the Bernanke review, noting that in April it had published scenarios without a central forecast, and she flagged three financial stability risks as potential future shocks, namely stretched AI-related equity valuations, the rapid and less transparent growth of non-bank intermediation, and the large size of government bond markets together with the volatility introduced by hedge funds.

Nakamura posed the question of whether the recent series of once-in-a-lifetime events represent bad luck or a new normal, suggesting that the post-Cold War euphoria of globalization was itself an exceptional period and that supply shocks might now be more systematic, reinforced by income and wealth polarization, populism, geopolitical risk, and climate change. He argued that while the basic idea is to look through supply shocks, frequent shocks should not be treated as transitory because they can lift underlying inflation and inflation expectations. In addition, he pointed to a slow-moving demographic shock in Japan, with a shrinking pool of potential labor supply exerting structural upward pressure on wages, as a structural factor that cannot be dismissed as temporary. He noted the difficulty of capturing underlying inflation with any single indicator and the resulting challenge of communicating with the public, citing the BOJ's use of multiple measures. He turned to the deteriorating quality of official statistics, driven by budget cuts and privacy concerns, and argued that they might not accurately capture the actual state of the economy, which poses a threat to data dependent monetary policy.

B. Discussion between the Moderator, Panelists and Floor Participants

Orphanides asked the panelists how they would adjust monetary policy strategy in their own economies given the supply shock environment.

Disyatat replied that the challenge lay less in the conduct of monetary policy than in communication, since in Thailand an annual memorandum of understanding gives the government grounds to demand policy action on every target miss, particularly when inflation runs below target. He suggested that a core measure, which excludes food and energy where most of the supply shocks originate, or a ceiling target below 3%, similar to the older ECB formulation, would suit an economy repeatedly hit by supply shocks that tend to push inflation below target, while still anchoring long-run inflation low and stable. **Goolsbee** responded that beyond communication there was a reality problem, because a stagflationary shock cannot be resolved by raising, cutting, or holding rates, and that central banks should ask for some room to maneuver while accepting that the public would mostly be disappointed, recalling that as outlined in the US framework review, a stagflationary shock affects both sides of the

mandate negatively, placing a central bank in one of the most difficult circumstances. **Lombardelli** argued that scenarios helped separate what a central bank is certain about, namely the return of inflation to target over the medium term, from what it is uncertain about, such as the duration of a conflict, and that they also let policymakers test the robustness of policy against reasonable rather than extreme outcomes. **Nakamura** added that Japan had observed nonlinear reactions of domestic prices to external shocks, with consumer prices rising sharply in response to both import price and exchange rate shocks, and argued that such nonlinearities must be taken into account in the conduct of monetary policy. **Kose** pointed out that both the volatility and frequency of global supply shocks had increased, making it more difficult to look through global supply shocks, and thereby central banks now responded more strongly to them than in the past. **Kalemli-Özcan** commented that, rather than getting drawn into the duration and uncontrollable nature of global supply shocks, it might be better for central banks to deliver the simplest possible message, focusing on the demand-supply imbalance and on the demand-side tool the central bank actually controls.

Orphanides then asked whether scenario analysis along the lines the BOE had adopted could help address these difficulties. **Goolsbee** expressed skepticism about scenario analysis, noting that even internal Fed scenarios provoke debate over their assumptions, and that relying on scenarios to win public credit may not communicate what is intended. **Disyatat** added that scenarios would become particularly delicate when a contested fiscal program is under consideration, since publishing scenarios with and without it would reveal the central bank's judgment of the effects of fiscal policy, so that the Bank of Thailand presented only a baseline. **Nakamura** noted that the BOJ had already introduced scenario analysis in its most recent Outlook Report, drawing partly on the BOE's experience, but stressed that timing and circumstances were crucial, since, for example, publishing a worst-case scenario of financial system collapse could itself rattle markets. **Kose** saw the tool useful but agreed with Goolsbee that it does not necessarily ease communication from a dynamic perspective, illustrating with the sharp upward revision of the World Bank's oil price forecast through the year, which forced a reversal in the direction of the scenarios and created credibility challenges for forecasting. **Gourinchas** commented that communicating around scenarios without a baseline, as the IMF had effectively done in April by relabeling its baseline as a reference scenario, could be dangerous because the public ultimately wants a number and central banks need a number to anchor expectations. He argued that abandoning a baseline could be justified for shocks outside normal situations, such as major trade offensive or the closure of the Strait of Hormuz, but warned that once scenarios are published the central bank becomes locked into them, fielding constant questions about which scenario applies when the answer is none of them. **Goolsbee** expressed discomfort with the idea of using scenarios as forward guidance, since policymakers should not tie the hands of future committees, drawing an analogy to the way the dot plot is mistakenly read as a promise.

From the floor, **Hoshi** asked, as a follow-up to Nakamura, whether panelists had seen promising attempts to restore data quality and whether the growing body of alternative data offered a direction worth pursuing. **Nakamura** replied that with alternative data remaining partial, reliable public data designed to represent the whole econ-

omy was still essential, adding that more resources should be devoted to high quality official statistics. **Goolsbee** noted that budget cuts to US statistical agencies had increased noise, lengthened lags, and enlarged revisions in ways that had become politically charged, and he cautioned that private sector data, which is more timely, was still benchmarked to official statistics, so the public sector role could not be dispensed with. **Kose** added that beyond deterioration there was a problem of cross-country reliability and possible manipulation, worsened where countries are at war.

Lane returned to the earlier discussion of alternative target designs, cautioning that a ceiling or range inflation target creates a vagueness problem for large financial systems, since the rate required to deliver a 2% point target differs sharply from the rate consistent with a range. He defended a point target as effective for anchoring even when missed ex post, and stressed that inflation too low required a response as much as inflation too high. He noted that Thailand's much larger food share made its inflation more volatile, and urged to focus on medium- to long-term inflation expectations. **Kashkari** shared Goolsbee's skepticism and identified two purposes for scenarios, namely conveying the range of uncertainty and conveying the reaction function. He argued that scenarios could not capture the true range of outcomes, and that the reaction function was the hardest part to convey, since everything depends on whether long-run inflation expectations remain anchored. **Lombardelli** responded that the BOE was learning by doing the use of scenario analysis visibly. She reported that scenarios helped communication in the high-uncertainty period after the Iran conflict, that the reaction function was indeed where value could be added, and that simple messages worked best, such as showing that rates would be higher if the war lasted longer and oil prices were higher regardless of the policy rule applied. She noted that running multiple policy rules through a scenario had produced a more informative internal committee debate about how to calibrate the policy rules, including the degree of smoothing and the relative weighting of objectives, even if the material was for specialists rather than the general public, and she called for more research, observing that placing scenarios within a risk distribution, as the IMF had begun to explore, still required work to be usable for policy communication.

Junko Koeda (BOJ) asked, in light of frequent negative supply shocks, how to effectively communicate to the broader public the role of monetary policy and its trade-offs, noting that wider public outreach may surface more concerns about jobs and the cost of living, issues that might be better addressed by fiscal policy. **Masazumi Wakatabe** (Waseda University) posed two questions, first on how communication with the government could be improved, since a central bank with only one or two instruments against multiple shocks depends on cooperation with the government, and second on the lessons central bankers can offer academia, given that current macroeconomics handles poorly multiplicity, persistence, tipping points, and nonlinearities, including how staff should be trained to understand these features. **Goolsbee** underscored how difficult communication will be in a world of more supply shocks, since forecasting inflation and the slope of the Phillips curve is already hard, expertise on supply chain damage and persistence is limited, and being proven wrong carries a price for credibility. **Nakamura** noted the relationship between headline inflation and short-, medium-, and long-term inflation expectations, the changing behavior of households

and firms, and argued the need to combine statistical with anecdotal analysis given evidence of nonlinear price-setting and large cross-country differences such as the high food share in some CPI baskets. **Kose** returned to the tipping point question in the context of oil markets, noting that inventories were falling quickly toward operational levels, that financial and physical markets disagreed sharply on the appropriate oil price, and that the large uncertainty around the tipping point, whether reached in July or later in the autumn, made it very difficult to communicate within any well-defined confidence interval.

Orphanides concluded that central banking was considerably harder in an environment of pervasive supply shocks, and that the challenge lied in choosing between the nineteenth-century approach of saying nothing, which sacrifices transparency and credibility, and the harder path of building tools such as scenarios to explain what is not known.

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APPENDIX 1: PROGRAM

Wednesday, May 27, 2026

Opening Remarks
Speaker: **Kazuo Ueda**, Bank of Japan

Mayekawa Lecture: Challenges to Independence: How Should Central Banks Respond—Lessons from History
Chairperson: **Neel Kashkari**, Federal Reserve Bank of Minneapolis
Lecturer: **Donald Kohn**, The Brookings Institution

Session 1: Optimal Monetary Policy with Uncertain Private Sector Foresight
Chairperson: **Kartik Athreya**, Federal Reserve Bank of New York
Paper Presenter: **David López Salido**, Banco de España
Discussant: **Åsa Olli Segendorf**, Sveriges Riksbank

Keynote Speech:
Chairperson: **Peter Kažimír**, National Bank of Slovakia
Speaker: **Markus Brunnermeier**, Princeton University

Session 2: Global Networks, Monetary Policy and Trade
Chairperson: **Tao Zhang**, Bank for International Settlements
Paper Presenter: **Şebnem Kalemli-Özcan**, Brown University
Discussant: **Ippei Fujiwara**, Keio University/The University of Tokyo

Session 3: Global Price Shocks and International Monetary Coordination
Chairperson: **Josef Meichenitsch**, Austrian Central Bank
Paper Presenter: **Iván Werning**, Massachusetts Institute of Technology
Discussant: **Kosuke Aoki**, The University of Tokyo

Policy Panel Discussion 1: Monetary Policy and Imbalances
Moderator: **Takeo Hoshi**, The University of Tokyo
Panelists: **Pierre-Olivier Gourinchas**, International Monetary Fund
Andrew Hauser, Reserve Bank of Australia
Lorie Logan, Federal Reserve Bank of Dallas
Eli M. Remolona, Jr., Bangko Sentral ng Pilipinas

Thursday, May 28, 2026

Fireside Chat

Moderator:	**Ryozo Himino**, Bank of Japan
Guest Speaker:	**Philip Jefferson**, Federal Reserve Board
	Philip R. Lane, European Central Bank

Session 4: Monetary-Fiscal Nexus and Unintended Equilibria

Chairperson:	**Rosmarie Schlup**, Swiss National Bank
Paper Presenter:	**Daisuke Ikeda**, Bank of Japan
Discussant:	**Fernando Martin**, Federal Reserve Bank of St. Louis

Policy Panel Discussion 2: Monetary Policy in a Changing World Economy

Moderator:	**Athanasios Orphanides**, Massachusetts Institute of Technology
Panelists:	**Piti Disyatat**, Bank of Thailand
	Austan Goolsbee, Federal Reserve Bank of Chicago
	M. Ayhan Kose, The World Bank Group
	Clare Lombardelli, Bank of England
	Koji Nakamura, Bank of Japan

APPENDIX 2: LIST OF PARTICIPANTS

Harun Alp	Federal Reserve Board
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Markus Brunnermeier	Princeton University
Rudolf Christoph	Deutsche Bundesbank
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Piti Disyatat	Bank of Thailand
Justin Ray Angelo Junio Fernandez	Bangko Sentral ng Pilipinas
Coletta Frenzel Baudisch	Deutsche Bundesbank
Takuji Fueki	Hitotsubashi University
Ippei Fujiwara	Keio University / The University of Tokyo
Andrea Gerali	Bank of Italy
Austan Goolsbee	Federal Reserve Bank of Chicago
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Andrew Hauser	Reserve Bank of Australia
Johannes Hoffmann	Deutsche Bundesbank
Michal Horváth	National Bank of Slovakia
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Philip Jefferson	Federal Reserve Board
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Masaaki Kaizuka	NEC Corporation
Şebnem Kalemli-Özcan	Brown University
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Neel Kashkari	Federal Reserve Bank of Minneapolis
Mitsuru Katagiri	Waseda University
Peter Kažimír	National Bank of Slovakia
Keiichiro Kobayashi	Keio University
Donald Kohn	The Brookings Institution
M. Ayhan Kose	The World Bank Group
Haruhiko Kuroda	The National Graduate Institute for Policy Studies
Philip R. Lane	European Central Bank
Harry Lee	Monetary Authority of Singapore

Lorie Logan	Federal Reserve Bank of Dallas
Clare Lombardelli	Bank of England
David López Salido	Banco de España
Fernando Martin	Federal Reserve Bank of St. Louis
Peter McQuade	European Central Bank
Josef Meichenitsch	Austrian Central Bank
Kazuo Momma	Mizuho Research Institute
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Tsutomu Watanabe	Nowcast Inc
Iván Werning	Massachusetts Institute of Technology
Beth Anne Wilson	Federal Reserve Board
Tao Zhang	Bank for International Settlements