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Introduction to the International Monetary Institute (IMI)

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Following the "general theory of macro-finance", IMI aims to become a world-class think tank, focusing on the studies of international finance, in particular the international monetary system and RMB internationalization. Despite its relatively short history so far, IMI has established itself as a leading research institution and important forum, where industry leaders, policy makers and academic experts from home and abroad share their insights and expertise.

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Financial Systems with Chinese Characteristics

Deficiencies of the Western Financial System and Chinese Alternatives

By HERBERT POENISCH AND TOMMASO FERRI*

Introduction

When comparing China with the Western economic system, and in particular the US, we often think about it in terms of a race to become the biggest economy of the world. A marathon where one party is leading, and the Red Dragon is quickly catching up, through the competitive market eyes, we have an incumbent player and a challenger. First movers and market leaders usually enjoy a broad array of advantages like: having a dominant market share, defining the market standards and setting prices. On the other hand, the other market player must follow these rules, work hard to gain some market share and look for disruptive solutions. First movers, acting as pioneers, sustain a higher level of risk which makes them more prone to errors. For the followers it is crucial to spot these improvable points and use them to gain some edge against the competitors. In these terms, the Western financial system, which claims to be universal, has some major flaws and the Chinese leaders have identified it as threat to their own development. The consequences of blindly following the competitor's steps are clear so they are now searching for alternative development paradigms to avoid the problems present in the Western world. In the search for alternatives this article will list the pillars of this system which are controversial and should be adapted or changed in an alternative system, called a financial system with Chinese characteristics.

The first pillar is the observation of financialisation of everything, from goods and services to housing and health and even the value of human life. The result is that there is a market for everything, rather than moral or political priorities. The second pillar is that there is an increasing disparity between wages and profits leading to a more unequal distribution of income and wealth. The third pillar is that the financial system has provided credit for households and governments and has become more complex and sophisticated in the process of providing credit, becoming more opaque and more profitable. Both, the contribution by the financial sector to GDP as well as the profit rate have risen.

1. Major Deficiencies of Western financial systems

1.1 The Financialisation of everything

This discussion is not new but has received increased attention after the right wing ideology, called neoliberalism since 1980, represented by the political elites in the USA under President Reagan and in the UK under Prime Minister Thatcher has become prevalent. Financialisation is used to describe the development of financial capitalism since the 1980s, in which debt-to-equity ratios increased and financial services accounted for an increasing share of national income relative to other sectors.

Financialisation describes an economic process by which exchange is facilitated through the intermediation of financial instruments. Financialisation may permit real goods, services, and risks to be readily exchangeable for currency, and thus make it easier for people to rationalise their assets and income flows. Financialisation is tied to the transition from an industrial economy to a service economy as financial services belong to the tertiary sector of the economy.

The rise of financialisation has already been deplored by Karl Polanyi in the mid 20th century in his treatise 'The Great Transformation'. He argued that markets cannot solely be understood through economic theory but rather are imbedded in social and political logics. Factors of production, such as land and labour would be sold at market-determined prices instead of being allocated according to tradition,

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redistribution and reciprocity. This was both, a change of human institutions and human nature. Finance has become detached from the real economy, boosted by automated trading systems. More of this is expected as AI plays an increasing role in finance which is based on quantitative input and output as Yuval Harari poignantly pointed out at a recent BIS conference.

1.2 Rising inequality of income and wealth

In addition to this we have witnessed greater inequality in income and wealth distribution in capitalist countries. In line with Marxist theory this has led to a greater share of profits compared with wages of non-propertied masses of the population. According to the World Bank, the Gini Coefficient which measures income inequalities, has risen to over 40 in Emerging Market Economies, such as Malaysia, Philippines and South Africa among many others, whereas it has stayed at 30 in the European Union and close to 40 for the United States. Regarding wealth distribution, the OECD calculated that across 28 OECD member countries, 10% of households own, on average 52% of total household wealth, whereas the 60% least wealthy households own little over 12% of total wealth.

To fill the demand deficit, credit expansion for households has allowed wage earners to sustain their consumption, thus pushing the reckoning into the future. The IMF in its Global Debt Monitor highlighted the rising indebtedness of the public and private sector, totalling USD 235tr or 238% of global GDP at the end of 2022. Public sector made up USD 91tr or 92% of GDP and private debt made up USD 144tr or 146% of GDP.

Not only consumer credit has risen to sustain private consumption but also government consumption by borrowing in order to sustain the growth momentum. Governments have been deprived of their fair taxes by the rich and multinational corporations. The financial sector, banks but increasingly non-banks have been more than willing to finance this rise in indebtedness of both, households and governments to preserve social stability and prevent excessive wage and tax demands to stay competitive.

1.3 A self-sustaining financial system

The financial system has become very complex and sophisticated since the 1980s, taking an ever increasing share of the domestic economy. According to the Global Financial Development Database of the Worldbank, by 2021 the financial sector made up 8% of GDP in the US and 10% in the UK, where it made up even 50% of GDP in London. Compare this with the simple thought that finance should be channelled from savers to investors at a low margin, just enough to encourage the population to save enough for future needs. As the financial system has played an increasing role, the profitability of owning financial intermediaries and instruments has provided part of the increasing return of capital for wealthy individuals.

Financial intermediation has evolved from a simple banking system for channelling deposits to lending to a myriad of institutions, such as all kinds of funds to a myriad of instruments ranging from ownership to borrowing to hedging future risks through derivatives.

The financial markets, consisting of the money and interbank market, the foreign exchange market, the stock market and bond market and finally the derivative market have boomed. Altogether they make up a multiple of the real economy.

2. Alternative system in China

The current situation of the Chinese financial system is characterised by a handful of banks who dominate the credit market by providing up to three fifths of total credit to the private sector. This concentration is aligned with the UK financial system but opposite to the US where financial markets and non-bank lenders play an important role. The Chinese total loan market is controlled by the five major banks who are responsible for 50% of the total issuance, with huge similarities with the UK system where in 2019 only 48% of total gross lending to SMEs was held by challenger and specialised commercial banks. This marks a high concentration and competition issues on banking services who might negatively influence the economic activity of the country.

Beside this trait, the most peculiar aspect of the Chinese banking system is the role of the state who owns a majority-share and therefore controls the same five biggest banks in the country. This is a unique characteristic which underscores a major distinction in the role, scope and activities of major Chinese banks when compared the other top 10 biggest banks in the world which are owned by the institutional and individual investors.

The Top 10 Biggest Banks by Market Cap

Top 10 Banks By Market Cap (as of 1/31/24)

Name	Ticker	Market Cap
JP Morgan & Chase	JPM	$504.07 billion
Bank of America	BAC	$269.15 billion
Industrial and Commercial Bank of China Ltd.	IDCBY	$249.54 billion
Wells Fargo	WFC	$182.24 billion
China Construction Bank Corp	CICHY	$151.76 billion
HSBC Holdings	HSBC	$149.06 billion
Royal Bank of Canada	RY	$136.83 billion
HDFC Bank Limited	HDB	$131.39 billion
China Merchants Bank	CIHKY	$116.65 billion
Mitsubishi UFJ Financial Group	MUFG	$114.79 billion

(Source: Investopedia)

This state influence on the banking side of the Chinese financial system can have a double effect on the underlying economy, on one hand we have the possibility to allocate credit towards real economy by boosting investment in productive assets. On the other hand, state influence goes against the free-market capitalism and neoliberal thinking which are embraced by the western system and carry underlying advantages and disadvantages.

Throughout history strong central banks have adopted forms of direct regulation of credit to boost productive credit creation and improve economic performance. These measures, often referred to as framing of credit, credit controls or window guidance broadly relied on this economic formula:

$Y * P = M * V$

(Y = Nominal GDP, P = Price, M = money in circulation & V = Velocity)

The Central Bank determined the desired GDP growth, computed the implied amount of credit required and distributed the credit creation right across the domestic banks. This strategy, also referred as “window guidance” has been implemented in different countries including in both the West and the Eastern world like: UK, Japan, Korea and Taiwan. This monetary policy tool has been recognised by the World Bank as the core of the East Asian and Chinese Economic Miracle where it fostered decades of high economic growth.

Specifically in China, this system has been very efficient in avoiding unproductive credit creation and stabilize low inflation, allowing its economy to dodge asset bubbles and stabilize the banking system. On the contrary, Western central banks have underplayed the importance of these interventions due to the contrast with the neoliberal policy. It is recognized that “window guidance” allowed the Chinese economy to avoid the local Asian Financial Crisis of 1997 and the Global Financial Crisis of 2008. However, beside this positive track record, since 2009, China’s debt-to-GDP ratio has doubled to a gigantic 294.5% in Q1 of 2024. This indicator had been kept in the 110 – 150% region between 1992 and 2009. This recent change in trend signals a shift in the monetary policy of China, highlighting a boosted credit creation which is decoupling from nominal GDP growth. In other words, more credit is needed to sustain economic growth at its target level of 5%. One indicator is the M2 over GDP ratio which has reached 240% by 1Q24, compared with 130% for the USA.

The IMF states that China played a central role in increasing global debt in recent decades as borrowing outpaced economic growth. Debt as a share of GDP has risen to about the same level as in the USA, while in USD China’s debt at USD 47.5tr is still markedly below that of the USA (close to USD 70tr). As for non-financial corporate debt China’s 28% share is the largest in the world.

Credit is not only being provided by the banks but increasingly by non-bank financial intermediaries by now making up a complex financial system. This indicator suggests that China is following the Western example, allowing households, enterprises and local governments to raise huge amounts of debt, close to collapsing under its burden, like in the case of Evergrande. This recent trend suggests that in the Chinese system financial credit is growing and the widespread financialisation is taking over also in China like it did in most mature economies.

Conclusion

In view of this development, ie the deficiencies of western financial systems creeping into China President Xi Jinping has recently, starting at the Financial Work Conference at the end of October 2023 repeatedly called for a financial system with Chinese characteristics. This should ensure that the allocation of funds follows the needs of the real economy rather than the financial system serving only itself while absorbing an increasing share of the GDP and yielding profits to the private shareholders. The newly established Central Financial Commission under Premier Li Qiang is tasked to designing a financial system with Chinese characteristics which was not introduced at the recent Third Plenum in mid July 2024.

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China's Economy

A Strong Guarantee is Made to Achieve National Rejuvenation*

By CHINA DAILY EDITORIAL

The third plenary session of the 20th Central Committee of the Communist Party of China concluded in Beijing on Thursday, having charted a new course for the nation's foreseeable future under the guidance of CPC Central Committee General Secretary Xi Jinping.

This pivotal gathering of the leading decision-makers of the country underscored the Party's unwavering commitment to deepening reform and advancing Chinese modernization, and set the stage for the establishment of a prosperous, equitable and sustainable society.

The session reaffirmed the Party's confidence in the nation's development path. The approval of the Resolution of the Central Committee of the Communist Party of China on Further Deepening Reform Comprehensively to Advance Chinese Modernization is a testament to the Party's adaptability and forward-thinking approach to navigating the complexities of the modern world.

As the strategic foresight and determination displayed in the document indicate, the Party's commitment to comprehensive reform and high-standard opening-up, which has been instrumental in steering China through the intricate dynamics of both global and domestic environments in the past, remains unwavering.

At the heart of the session was the recognition that China is at a critical juncture in its journey toward modernization and national rejuvenation and it needs to maintain a delicate balance between development and security, while advancing socialist democracy and the rule of law, and enhancing the welfare of the people and environmental protection.

The approach set out transcends mere economic growth. It is a holistic vision that seeks to harmonize economic development with social progress and environmental stewardship, with deepened reform the cornerstone for Chinese modernization.

It calls for the new development philosophy to steer reform that deepens supply-side structural reform, improves incentive and constraint mechanisms for promoting high-quality development, and strives to create new growth drivers and strengths. All relevant departments are thus to make all-out efforts to improve the institutions and mechanisms to foster new quality productive forces in line with local conditions.

To that end, coordinated efforts are needed to promote integrated reform of institutions and mechanisms pertaining to education, science and technology, and human resources, and improve the new system for mobilizing resources nationwide to make key technological breakthroughs, so as to boost the overall performance of China's innovation system.

Notably, as the document indicates, the Party is clearheaded about the risks and uncertainties the country faces, and relevant departments are called on to implement various measures to prevent and defuse risks stemming from the real estate sector, local government debt and small and medium-sized financial institutions.

Looking ahead, the session outlined a visionary road map through 2035, with goals including the establishment of a high-level socialist market economy, significant advancements in governance, and the basic realization of socialist modernization. By 2029, the 80th anniversary of the People's Republic of China, the Party aims to have accomplished the reform tasks set out in the decision, laying a solid foundation for achieving these long-term objectives. This ambitious timeline underscores the Party's confidence that the country is heading in the right direction.

Essentially, as the session stressed, the CPC Central Committee's authority and its centralized, unified leadership with General Secretary Xi Jinping at the core are the fundamental guarantee for the deepening

* Puclished on chinadaily.com.cn | Updated: 2024-07-19.

of reforms. As China continues on its transformative journey, the decisions made at this plenary session will not only play a crucial role in shaping the nation's trajectory in the years to come, but also the shaping of a more harmonious and inclusive world.

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Steps will Add Support for Private Enterprises*

By CHINA DAILY

China's latest push to create a favorable environment for the private sector and boost the growth of private enterprises is expected to shore up business confidence and revitalize the growth of the world's second-largest economy, said experts and company executives.

Their comments came after the third plenary session of the 20th Central Committee of the Communist Party of China adopted a resolution on further deepening reform comprehensively to advance Chinese modernization.

They added that the resolution will bring about new opportunities for the high-quality development of the private economy. It also will further motivate private enterprises to enhance their innovation capabilities and achieve breakthroughs in crucial technologies, they said.

The resolution said that China will continue to implement principles and policies that help foster a favorable environment and create more opportunities for the development of the nonpublic sector, while formulating a law to promote the private economy.

More efforts will be made to remove barriers to market access, improve the long-term mechanism for private enterprises to participate in major national projects, support capable private companies in leading significant national technological and innovation projects, and provide private enterprises with greater access to major national scientific research infrastructure.

The country will refine financing support policies and systems for private enterprises to resolve the difficulties they face in accessing affordable financing, the resolution added.

Zhou Maohua, an analyst at China Everbright Bank, said the private sector serves as a vital force in advancing Chinese modernization and plays a key role in stabilizing economic growth, expanding employment and boosting technological innovation.

Noting that some private enterprises have been facing challenges from cash flow pressure and financing difficulties, Zhou said that it is 'important to strengthen financial support for micro, small and medium-sized enterprises, and further deepen reform to eliminate hidden barriers that hinder the development of the private sector'.

Hong Yong, an associate research fellow at the e-commerce research institute of the Chinese Academy of International Trade and Economic Cooperation, said the country's move to draft a law on promoting the private economy reflects its strong dedication to nurturing the private economy, with a specific emphasis on addressing the fundamental concerns of private enterprises.

'It signals a significant step toward creating a more transparent, stable and predictable business environment that ensures fair competition,' Hong said, adding that legislative efforts will not only remove systemic barriers, but also invigorate business dynamism and foster the advancement of new quality productive forces.

Private companies, a key driving force behind China's economic ascent over the past decades, contribute more than 60 percent of gross domestic product, 70 percent of technological innovation and 80 percent of urban employment, official data showed.

Li Dongsheng, founder and chairman of consumer electronics maker TCL Technology Group Corp, said the resolution has set the direction for the high-quality development of the private sector and will greatly boost the company's confidence in future growth and stimulate the entrepreneurial spirit of private businesspeople.

Lei Jun, founder, chairman and CEO of Chinese smartphone maker Xiaomi Corp, said that measures such as supporting technological innovation will help boost the high-quality development of the private sector.

* The article first appeared on China daily July 22th 2024.

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Innovation will be Key Policy Focus： Policy: Scientific Governance Role Stressed*

By MA SI AND FAN FEIFEI*

Promoting innovation through opening-up will be a key policy focus during an upcoming vital reform meeting, with greater international tech cooperation widely seen as crucial for China to nurture new growth drivers and share fresh opportunities with the rest of the world, experts and corporate executives said.

New measures could include expanding global cooperation in scientific research and encouraging enterprises to play a major role in tackling technological bottlenecks, they added.

The third plenary session of the 20th Communist Party of China Central Committee is scheduled to be held in Beijing from July 15 to 18 to map out new economic reforms.

The experts' and executives' comments came after President Xi Jinping called for efforts to foster a globally competitive, open environment for scientific and technological innovation, saying that it is important to insist on promoting innovation through opening-up.

Xi made the remarks when presiding over the fifth meeting of the central commission for deepening overall reform of the 20th CPC Central Committee in June. He is head of the commission.

Wang Zhigang, a member of the Standing Committee of the 14th Chinese People's Political Consultative Conference National Committee, said, "It is of utmost importance to leverage openness to stimulate vitality and expand international cooperation in science and technology despite external headwinds."

Wang, who is also a former minister of science and technology, said that integrating with the global innovation network using a proactive approach would help to attract top global talent and foster a competitive, open innovation ecosystem.

"More efforts are needed to build international and regional science and technology innovation centers, which could become pioneers in scientific progress and drive the development of new quality productive forces," Wang added.

Xue Lan, dean of Schwarzman College at Tsinghua University, said that no country can become a great innovative nation in isolation.

"Even amid stringent tech restrictions by the United States, China should not isolate itself, but rather integrate more actively into the global innovation system to avoid severe disruptions in the global industrial chain," Xue said.

"As China holds a very important position in the global industrial chain, we must continue to innovate and open up to strengthen this position," he added.

Denis Depoux, global managing director of market consultancy Roland Berger, said that China has emerged as a strong player in the global landscape of research and development. For instance, the country has the world's largest number of patents applications, and its research and development spending exceeded 3.3 trillion yuan ($454 billion) in 2023, second only to the US.

"But innovation needs international exchanges and serendipity, not only money," Depoux said. "To become a true innovation-driven country, China needs to become an enabler of R&D driven by universities, public institutions and companies, not only in China, but also globally."

According to Depoux, that will be the key to growing China's total factor productivity, an indicator that measures the efficiency of production. To that end, multiple levers can be activated, such as launching venture capital funds for global startups, globally scaling China's startups, and encouraging Chinese companies to establish global R&D centers.

"China can continue to take an inclusive approach to science and technology with emerging countries and the Global South. By fostering mutually beneficial partnerships and promoting sustainable

* This article first appeared at China Daily on 8 July 2024.

* Chun Kuang, School of Banking and Finance, University of International Business and Economics. Jiawen Yang, School of Business, The George Washington University. Wenyu Zhu Corresponding author. China Financial Policy Research Center & School of Finance, Renmin University of China.

technological advancements, China can contribute to the overall development and global integration of emerging nations," Depoux added.

Dou Xiankang, head of the National Natural Science Foundation of China, also emphasized the need to actively participate in global scientific governance.

According to Dou, international scientific and technological cooperation is an inevitable trend, and fundamental research serves as an important channel for promoting such cooperation.

Denis Simon, president of the Alliance of Global Talent Organizations, said that greater global cooperation in industrial innovation is needed to address the challenges that the world is facing.

China has a mix of expertise and experience, and it can bring speed to the market, as seen in electric vehicles and renewable energy, Simon said, adding that deeper international cooperation, rather than protectionism, is vital for the world to cope with climate change.

Luo Zhongwei, a researcher at the Chinese Academy of Social Sciences' Institute of Industrial Economics, said that Chinese enterprises should also expand cooperation with their foreign counterparts in fields such as artificial intelligence, life sciences, green energy and advanced manufacturing, in order to enhance their competitiveness on the global stage.

Luo said that China's emphasis on fostering a globally competitive, open environment for scientific and technological innovation will create enormous opportunities for multinational corporations to invest in the country and inject strong momentum into global economic recovery.

Frank Meng, chairman of Qualcomm China, said, "Chinese enterprises have actively integrated themselves into the overall landscape of global technological innovation, which has created even broader opportunities for collaboration with companies like Qualcomm."

According to Meng, the US chip company has "consistently considered China as a pivotal business partner and valued customer, viewing it as more than just a market or a link in the supply chain".

China | A Reversion of Balance of Payments Situation: from Pandemic to Post-pandemic Era*

By JINYUE DONG AND LE XIA

A significant reversion of China's Balance of Payments (BoP) situation in 2023 from Covid-19 pandemic era

During the 2020-2022 Covid-19 pandemic time, amid the unprecedented economic blow and dim outlook of global economy, Chinese economy was firing on all cylinders after fully controlling the pandemic since May 2020. The unsynchronized business cycle with the other economies in the world during the pandemic time has led to a strong Balance of Payments, featuring in extraordinarily strong exports, current account balance, portfolio inflows and FDI inflows, together with a significant shrink of service trade deficit.

However, as Chinese authorities lifted Covid-19 lockdown and opened its economy at the beginning of 2023, the Balance of Payments situation has reversed significantly in the past year in 2023 compared with the Covid-19 pandemic time. The reversion situation not only displayed in current account such as negative growth of exports, but also in capital account, namely the dipping portfolio inflows and FDI etc.

Specifically, chief among these BoP reversions include:

(i) Exports sharply decelerated in 2023 from the Covid-19 pandemic period, leading to a shrinking trade balance; (Figure 1)

(ii) Current account surplus also declined dramatically due to a combination of a shrinking trade balance and a significant increase of service trade deficit as outbound tourism bounced back from almost zero in Covid-19 period; (Figure 2)

(iii) FDI inflows into China also reversed its pattern from historical peak in 2020 to negative growth in 2023, due to the large reversion of China-US policy rate as the FED hiked the rate to historical high while the PBoC conservatively cut the rate to stimulate growth. (Figure 3 and 4) (See our recent Economic Watch: China | Should we worry about falling FDI?)

(iv) Portfolio inflows also became negative in 2023, due to the dim outlook of Chinese economy, housing market crash, lackluster performance of China's stock and bond market as well as RMB exchange rate depreciation.

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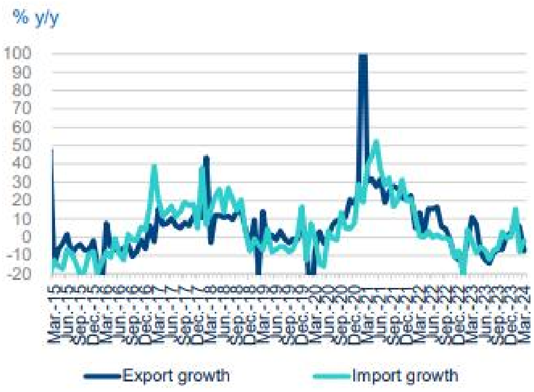
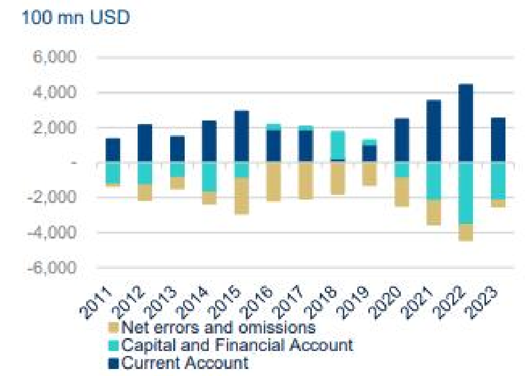
* This article first appeared in BBVA on May 14, 2024.

Figure 1. **CHINA'S EXPORTS DIPPED SIGNIFICANTLY IN 2023 FROM THE PANDEMIC TIME**



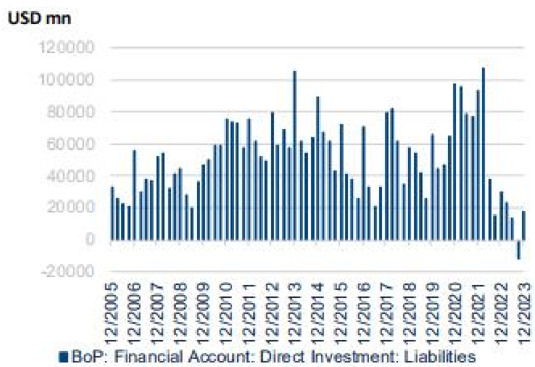
Source: CEIC and BBVA Research

Figure 2. **A LOWER TRADE BALANCE WITH LARGER SERVICE TRADE DEFICIT LEADS TO A SHRINKING CURRENT ACCOUNT SURPLUS IN 2023**



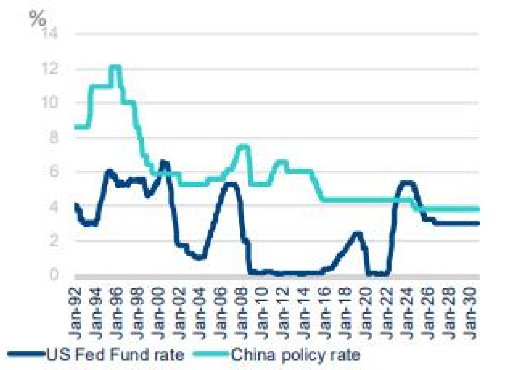
Source: BBVA Research and CEIC

Figure 3. **CHINA'S FDI INFLOWS DROPPED TO HISTORICAL LOW IN 2023...**



Source: CEIC and BBVA Research

Figure 4. **...DUE TO THE REVERSION OF CHINA-US POLICY RATE**



Source: BBVA Research and CEIC

Under this circumstance, it is important to understand what was going on in the past year's BoP reversion and to predict this year's BoP items in 2024. This report is an update of our previous annual BoP Outlook: Economic Watch: China | 2021 outlook of external balance: will China's BoP normalization come soon? Given that the post- pandemic situation changed dramatically compared with the situation in the Covid-19 pandemic period, we have to re-set the key assumptions for predicting China's Balance of Payments outlook for 2024.

A deeper dive of BoP components: understanding China's Balance of Payments (BOP) reversion in 2023 and predictions for 2024

We examine and summarize how the different components of the BoP changed in 2023 qualitatively and quantitatively in the aftermath of Covid-19 pandemic time. We then predict the 2024 BoP, based on our understanding of the evolvement of China's current and capital account components in the post-pandemic era.

Our main analysis and predictions are summarized below:

- Current Account - Goods Trade: During the pandemic time, China's "first-in-first-out" of the pandemic pointed to a surge in exports since June 2020 till end-2022, as the supply-side substitution effect persisted when most countries were still stumbling with the pandemic. During 2021 to 2023, China's exports growth increased by 5.2% y/y, 28% y/y and 4.1% y/y respectively. However, the strong exports momentum faded and reversed after Chinese authorities lifted the zero-Covid policy at end-2022 amid global economic normalization from the pandemic. In 2023, exports growth significantly dropped to -5% y/y together with global economic slowdown thus weak external demand from other economies.

Regarding 2024, we estimate that the total exports will expand by 3% growth, due to the low base effect in 2023. Meanwhile, imports growth is anticipated to modestely expand at 2.8% in 2024 amid domestic growth recovery (in line with Bloomberg consensus). As a consequence, trade balance is estimated to increase to USD 616.9 billion in 2024 from USD 593.9 billion in 2023.

- Current Account - Services Trade: Over the past several years, China's gaping deficit of service trade was mainly driven by the boom of Chinese overseas travel, which accounts for more than 60% of service trade deficit. For instance, in 2019, the deficit of overseas travel accounted for 84% of total service sector deficit. (Figure 5) However, after the outbreak of COVID-19 in 2020, China and many other countries unveiled the lockdown and border control policies, thus China's inbound tourism slumped by 61% in 2020 while outbound tourism dipped by 49%. Such a trend persisted during most time of the pandemic.

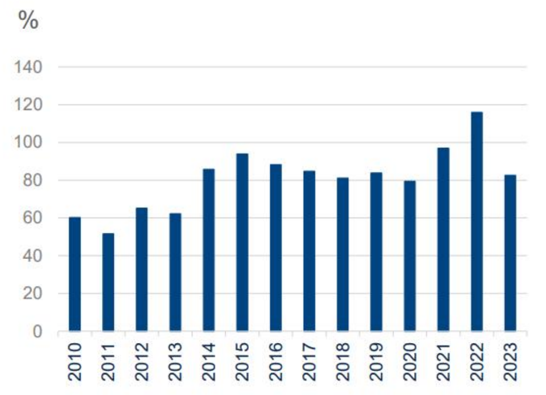
By contrast, the Covid-19 restriction lift-off and the normalization of people movement since the beginning of 2023 makes the international travel boom again, although the progress has been gradual. Meanwhile, we assume that changes of the other service-trade items will move in tandem with that of goods trade. As such, the deficit of China's service sector is estimated to expand to USD -261 billion in 2024 (similar level as of 2019 pre-pandemic time) from USD -206.8 billion in 2023.

- Current Account - Primary and Secondary Income: In the past years, investment income flow is the dominant item under Primary and Secondary Income, compared with other items under this category. (Figure 6) In 2020, the COVID-19 outbreak led to subdued global economic activities which reduced China's entities' interest income earned abroad from USD 257.5 billion in 2019 to USD 224.4 billion in 2020. On the other hand, as China achieved a stunning economic recovery during Covid-19, the investment incomes of foreign entities in China increased to USD 331.5 billion from USD 300.8 billion in 2019. Thus, considering other items under this category altogether, primary and secondary income deficit significantly shrank to USD -95.7 billion in 2020.

- By sharp contrast, in the post-pandemic time, this trend also reversed in 2023. For instance, China's entities' interest income earned abroad shrank to USD 212.8 billion in 2023 from USD 245.7 billion in 2022, while foreign entities's investment incoms in China also significantly shrank to USD 371.8 billion from USD 371.8 billion compared with pandemic time. Following this new trend, we therefore forecast the deficit of primary and secondary income combined will maintain at the 2023 level of USD -133.1 billion in 2024, representing the reversed trend of the investment income flows in the aftermath of Covid-19 pandemic.

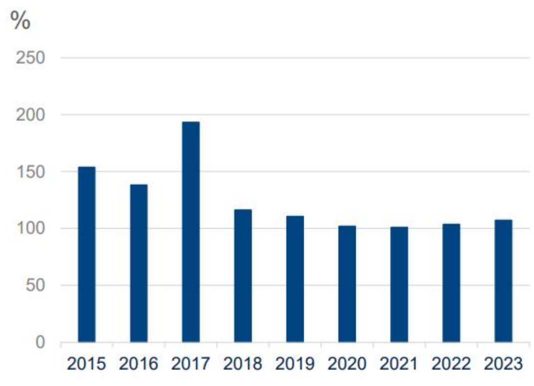
In sum, we predict that the current account surplus will further shrink to USD 222.8 billion in 2024, around 1.2% of GDP, from USD 253 billion in 2023 (1.4% of GDP).

Figure 5. **THE CONTRIBUTION OF OVERSEAS TOURISM HAS BEEN DOMINANT IN SERVICE TRADE CATEGORY IN BOP**



Source: CEIC and BBVA Research

Figure 6. **INVESTMENT INCOME FLOW'S CONTRIBUTES LARGEST TO PRIMARY AND SECONDARY INCOME OF BOP**



Source: CEIC and BBVA Research

- Financial and Capital Account – Direct Investment (FDI): The Covid-19 pandemic's impact on inward and outward FDI was different in 2020. The re-invigoration of Chinese economy in the pandemic time significantly boosted foreign FDI inflows to China to USD 212.5 billion from USD 187.2 billion in 2019, a 13.4% increasing, which made China surpass the US and become No.1 FDI recipient country in 2020. On the other hand, Chinese outward FDI declined to USD 109.9 billion from USD 136.9 billion in 2019 due to the lingering COVID- 19 pandemic in China's target countries, such as Latam, Europe and other ASEAN (19.7% decline).

By sharp contrast, FDI situation was completely reversed in 2023 in the aftermath of Covid-19 pandemic. Due to Chinese authorities' regulation storms on several sectors in 2021, the nearshoring and offshoring which means supply-chain relocation outside of China amid rising geopolitical issues, together with dim outlook of the Chinese economy in the post-pandemic time, China's FDI inflows dropped to historical low in 2023. For some months, FDI net inflows even dipped to negative figures, raising global concerns. (see our recent Economic Watch: China | Should we worry about the falling FDI?) At the same time, Chinese authorities and enterprises also slowed their pace of ODI during the post-pandemic time.

Based on this new trend, deficit under FDI item is anticipated to marginally improve to USD -120 billion in 2024 together with economic stabilization in 2024, from USD -142.6 billion in 2023 which recorded historical low.

- Financial and Capital Account – Portfolio Investment (including errors and omissions): China has a large amount of errors and omission on the Balance of Payments (BoP). For instance, in 2020, the term of errors and omissions reached USD -168.1 billion, even larger than net inflow of USD -105.8 billion under capital and financial account. It is widely believed that most of errors and omissions are hidden under "net portfolio outflows". That is why we include errors and omissions into the portfolio investment item.

During the pandemic time, the capital flow trend was quite mixing. On the one hand, due to effective containment of the COVID-19 in China, the country's risk assets have performed relatively well compared with assets in advanced economies. Moreover, after the major central banks unveiled ultra-loose monetary policy in response to the pandemic shock, China's interest rate differential with those of advanced economies went to historical high to attract capital inflows. Thus, security investment inflows reached USD 87.3 billion from USD 57.9 billion previously, a 50.8% increase in 2020. By contrast, the outflows under the items of “foreign currency and deposit” and “foreign loan” became much larger than that of 2019 to USD -53 billion and USD - 163.6 billion respectively, leading to a large amount of capital outflow.

By contrast, the portfolio situation in the aftermath of pandemic in 2023 also significantly reversed. For instance, capital outflows reached USD -77.3 billion in 2023 while inflows turned to USD 14.1 billion, making portfolio balance shrank to USD -63.2 billion in 2023. Look forward to 2024, capital outflow is anticipated to be even larger in 2023 due to the persisting China-US policy rate inverse and the US FED’s “higher for longer” interest rate. We predict a 20% expansion of capital outflows in 2024, reaching USD -92.76 billion while inflows continued its drop to USD 11.3 billion (20% shrinking), leading to portfolio balance deficit further expand to USD -81.46 billion. Together with errors and omissions we assume to follow 2023, the total portfolio Flow including errors and omissions will be USD -119 billion.

The above analysis is summarized in the below table. (Table 1)

Table 1. A QUALITATIVE SUMMARY OF BALANCE OF PAYMENTS COMPONENTS FORECAST IN 2024

Componentes of BOP	Qualitative assessment of 2024 outlook
Goods Trade	Negative, driven by global economic slowdown and weak external demand
Services Trade	Negative, driven by expansionary outward international tourism item, thus expanding service trade deficit
Primary and Secondary Income	Ambiguous, driven by declining in both investment interests in foreign countries and in China
Direct Investment	Negative, driven by significant decline of FDI inflows into China due to nearshoring, supply chain moving outside of China amid rising geopolitics
Portfolio Investment	Negative, driven by the persistence of the reversion of China-US policy rate and FED's "higher for longer" rate

Projecting foreign reserves change in 2024

Based on our above analysis of the BOP components in 2024, we are able to do a quantitative exercise of forecasting the change of foreign reserves in 2024. To estimate the change of foreign reserves, we adopt our foreign reserve decomposition model used in one of our previous report (see our Economic Watch: China | 2021 outlook of external balance: will China's BoP normalization come soon?):

Foreign reserves change= foreign reserves' currency valuation effect +current account balance +net FDI +net RMB cross-border flow + domestic FX holding change + portfolio flow

In the Table 2 below, we summarize our assumptions of every item of the foreign reserve decomposition formula above in details. The assumptions are based on the analysis in Section 2. The quantitative results of the forecasting for each item are displayed in Table 3. The model yields a projected decrease of USD 99.16 billion in foreign reserves by the end of 2024, implying that foreign reserves at end-2024 will decline to USD 3,140.84 billion, compared with USD 3,240 billion at end-2023.

Table 2. KEY ASSUMPTIONS OF THE COMPONENTS OF FOREIGN RESERVE IN 2024 BASED ON THE ANALYSIS IN SECTION 2

	Assumptions
(1) Foreign reserve's currency valuation effect (negative)	We assume that USD index (DXY) will increase to 105 at end-2024 from 101.4 at end-2023, due to the FED's "higher for longer" rate policy and delayed interest rate cut. Thus, other currencies (GBP, JPY and EUR) which count for 30% of China's foreign reserve currencies (total: USD 3220 billion at beginning of 2024), will depreciate accordingly by 3.5% relative to USD. Altogether, foreign reserve will decrease by USD 33.8 billion by currency valuation effect.
(2) Current account balance (negative)	We first decompose current account into goods trade, service trade, primary and secondary income (combined). (i) Exports growth is predicted to be 3% while imports growth 2.8%; (ii) We assume that changes of all other items under service trade item will be at the same proportion as that of goods trade change. Under these assumptions, the deficit of service trade expanded to USD -261 billion in 2024 from USD -207.8 billion in 2023; (iii) we forecast the deficit of primary and secondary income combined will maintain the same level as of 2023 at USD -133.1 in 2024. Altogether, we expect current account surplus will shrink to USD 222.8 billion this year (1.2% of total GDP).
(3) Net FDI (negative)	We assume a 20% shrink of inward FDI in China and 20% decline of outward FDI this year. Based on the assumptions, deficit under FDI item will marginally increase to USD -120 billion in 2024 from USD -142.6 billion in 2023.
(4) Domestic FX holding change (neutral)	FX deposit change by household and enterprises: we assume 2024 household and enterprises will change their FX deposit as the historical average for the past three years before pandemic time, which is USD -32.8 billion. Bank's FX positions change: similar as FX deposit change by households and enterprises, we assume banks' FX positions will change as the historical average for the three years before the pandemic time, which is USD -16 billion.
(5) Net RMB cross-border flow (neutral)	Similar to item (4), we predict the 2024 net RMB cross-border flow at historical average for the past three years which is USD -15.4 billion.
(6) Portfolio Flow combined with errors and omissions term (negative)	As the US FED "higher for longer" and the China-US rate reversion persist, we predict a 20% expansion of capital outflows in 2024, reaching USD 92.76 billion while inflows continued its drop to USD 11.3 billion (20% shrinking), leading to portfolio balance further shrink to -USD 81.46 billion. Together with errors and omissions we assume to follow 2023, the total portfolio Flow including errors and omissions Will be USD -119 billion.

Table 3. FORECASTING THE COMPONENTS OF FOREIGN RESERVE FORECASTING MODEL IN 2024

(Unit: USD bn)	2021	2022	2023	2024f
1.Current account Balance	352.9	443.4	253	222.8
1.1 Goods trade	562.7	665	593.9	616.9
Goods exports	3215.8	3346.8	3179.2	3274.6
Goods imports	-2653.1	-2681.8	-2585.3	2657.7
1.2 Service trade	-101.2	-87.4	-207.8	-261
1.3 Primary and Secondary income	-108.6	-134.2	-133.1	-133.1
2.Valuation effect	-34.1	-78.77	22.93	-33.8

3.FX deposit position change for household and enterprise	255.8	720.9	-82.7	-32.8
4.FX deposit position change for banks	-34.1	-28.9	-68.9	-16
5.Net RMB cross-border flow	-15	8.7	-10.2	-15.4
6.Net FDI flow	165.3	-19.8	-142.6	-120
7.Portfolio flow	-83.1	-378.4	-101.2	-119

Conclusions

Based on our analysis in the above sections, we draw the conclusion that the favourable factors on China's BoP during the Covid-19 pandemic time have significantly reversed after the pandemic time in the past year in 2023. Several factors in the aftermath of Covid-19 pandemic such as China's economic growth slowdown, supply chain relocation outside of China, weak external demand as well as US-China reversed policy rate continue to have a negative impact on the Balance of Payments (BoP) in 2024, particularly on the items of current account, portforlio flows, net FDI flows etc.

Based on our assumption and of BoP involvement in 2024, we also predict China's foreign reserve at end-2024. The model yields a projected decrease of USD 99.16 billion in foreign reserves by the end of 2024, implying that foreign reserves at end-2024 will decline to USD 3,140.84 billion, compared with USD 3,240 billion at end-2023.That means, the above negative factors on Balance of Payments in 2024 also lead to a slowdown in China's foreign reserve.

Although the results indicate a still healthy external balance, the authorities should still be aware of the fragility of this equilibrium based on weak global environment particularly the interest rate cut process in the US and its spillover effects to China, as well as the domestic economic woes, such as growth slowdown, supply side overcapacity, local government and SOE debt overhang and housing market crash.

That being said, the authorities should warily manage the capital account to guard against capital flight given the historically peak of China-US interest rate reversion going forward. Meanwhile, the authorities need to take the chance to press ahead with financial reforms of domestic financial market. In addition to strengthening banking sector, the authorities should take efforts to stimulate growth in a bid to make domestic equity and bond markets more attractive to international investors. After all, foreign holdings of Chinese bond and stock market are only around 4-5% of total market value, implying a lot of room for capital inflows to achieve a more balanced structure in China's capital account.

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Climate Change and Green Finance

IMF and World Bank Working Together to Scale up Climate Finance⋆

By TOBIAS ADRIAN*

The IMF, the World Bank Group, and development partners have supported climate-relevant policy reforms through budget support and through funding for relevant investment projects, across a diversity of sectors—primarily energy, transportation, and agriculture. Benin has been a front-runner on climate policy and finance in the region, both to build climate change resilience and to ensure low-carbon development. The agreement reached by Benin with the IMF in December last year, on a US$200 million Resilience and Sustainability Facility (RSF), aims to support the authorities in implementing their vision. This lending arrangement aims not only at supporting overall socio-economic resilience, but also at mainstreaming climate change in policymaking and addressing key structural challenges that expose Benin to climate shocks. It should help mitigate balance-of-payment risks and catalyze other sources of climate financing. The RSF has also contributed to creating momentum to implement recommendations from the Benin Country Climate and Development Report (CCDR) of the World Bank.

Benin has taken ambitious commitments for climate change adaptation and mitigation, outlined respectively in the National Adaptation Plan (NAP) and the Nationally Determined Contribution. Under the 2022 NAP, the authorities have committed to focus on agriculture, water, forestry, coastal erosion, health, tourism, and more broadly on reducing vulnerability across all key sectors. In Benin's updated 2021 Nationally Determined Contribution, the focus is primarily on energy, agriculture, manufacturing, waste, land use and forestry. It reflects an increase in ambition to reduce emissions by 20.5 percent by 2030. The country has significant potential in developing solar energy, a sustainable food production export model, and a clean mobility strategy. Co-benefits from a low-carbon and resilient energy mix would mostly accrue in the telecoms, agriculture, water management, and transportation sectors, while increasing energy security and preventing future stranding of assets.

The IMF, through the RSF, and along with other development partners, aims to support the authorities in reaching these objectives. But the financing needs to achieve this vision are very large.

No single institution can finance on the scale that is required. The RSF by itself is not enough to do the job. Neither is the World Bank or other MDBs' and other development partners' lending in isolation. It will therefore be important to work together to mobilize additional climate finance from both public and private sources. Today's meeting with development partners as well as international and local investors around this table demonstrates the willingness and commitment to undertake this task jointly.

We are by now all familiar with the barriers that constrain climate investments from flowing to emerging markets and developing economies (EMDEs). A lack of large investment grade opportunities, policy and governance challenges, illiquid markets, high upfront transaction costs, long-dated and volatile nature of cash flows of most climate investments, exchange rate volatility, and returns that don't justify the perceived risk, to name a few.

⋆ International Roundtable for Scaling Up Climate Finance for Benin
* Tobias Adrian, Financial Counsellor and Director of the Monetary and Capital Markets Department.

Overcoming these obstacles requires a change of mindset—from the public sector, the private sector, and the multilateral institutions—to revamp the financial architecture to attract more private climate finance, especially for EMDEs. At the IMF, we have stepped up and embraced this change of mindset.

There is also recognition at the highest level in Benin that we need concerted action to undertake climate action, to maintain Benin's status as a front-runner in implementing climate policy.

We therefore need "all hands on deck" to scale up climate finance in adaptation and in transition finance. Comprehensive and tailored climate policies, inter-ministerial cooperation and planning, innovative financial instruments, strong governance, and a stronger climate information architecture will prove crucial.

This is why today, other colleagues from the IMF and I have come here with our co-convening partner, the World Bank Group, as well as colleagues from many other development partner institutions, to engage with the Beninese authorities to help catalyze private climate finance in Benin, building on the CCDR and the RSF.

Our team has sent to you a concept note with key policy reforms, CD efforts, and financing options that have the potential to crowd in local, regional, and international investors. We hope to discuss in more detail today whether these priorities and options might be consistent with the Beninese authorities' climate agenda. After this kickoff meeting, we hope to continue to work together in a joint working group format with you and the partners around this table to start the work on operationalizing any options that might be of interest to you. We are also hoping to discuss a timeline and identify a few solutions from the concept note that we could work together to operationalize at scale, so we can make some progress and announce a concrete plan during the COP29 meeting in November 2024.

We frequently underline the importance of country ownership to scale up action to confront the threat to climate change. And I would like to truly thank the authorities for engaging with us on this joint effort to mobilize climate finance.

People gathered here today have expertise in a variety of areas including in public and private investment, structuring financial instruments, and capacity development, among others. We share the common objective of scaling up climate finance, including crowding in private capital at scale, for Benin and more broadly in the region and elsewhere.

To deliver on this front, we need to combine policy reforms, capacity development, and innovative funding arrangements. Above all else, what we need today is unprecedented cooperation and coordination. Looking at everyone around the table today, I am confident we will deliver.

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Innovating Green Finance: Data, Technology and AI*

By EMMA MCGARTHY

Technology is crucial for solving challenges, filling data gaps and scaling up transition finance

Technology is playing a critical role in scaling up climate action and transforming capital markets. It is helping to overcome challenges in data gaps and risk modelling and ensure market and investor confidence in sustainable products and projects. Nevertheless, more investment is needed to support technological advancement, and with new technologies comes uncertainty.

This edition of the Sustainable Policy Institute journal examines the key role data and technology will play in driving green finance and the economy-wide transition. It explores the latest policies for innovation and technological advancement, and the increasingly prevalent role of artificial intelligence and machine learning for investors and asset managers.

To better understand, and thereby mitigate, potential financial risk, more disclosure and reporting of financial activities is integral. This importance has been reflected in the proliferation of regulation and taxonomy frameworks introduced in recent years.

But collecting reliable and actionable data remains a challenge. As Emmanuel Levy, product management, climate data science at Citi, argues, data disclosures suffer from staleness. The data sourced are often published on an annual basis and can be as much as 18 months old. Collecting data on a much timelier basis would help to solve this challenge.

Stuart Coleman, director, consultancy and learning at the Open Data Institute, and Elena Simperl, professor of informatics at Kings College of London, argue that data must be treated as public infrastructure. Dominant platforms should share anonymised datasets and fund greater data access to support socioeconomic development.

The financial risks triggered by climate change are still misunderstood by the financial sector, but technology can play a big part in changing this. As Andrés Alonso-Robisco, senior economist, financial innovation, and José Manuel Marqués, director of financial innovation and market infrastructures from Banco de España, write, the main areas where technology might underpin further developments in green finance are the use of satellite data for nature finance and physical risks evaluation.

An initiative developed by the Bank for International Settlements Innovation Hub Singapore Centre, in collaboration with the Monetary Authority of Singapore, integrates climate-relevant geospatial data to provide qualitative assessments of climate risks. This can support financial authorities in identifying, monitoring and managing these risks within the financial system.

AI-powered solutions can play a key role in increasing the speed and efficiency of the environmental, social and governance disclosure process, thereby improving data and information quality. Atiyah Curmally, principal environmental scientist at the International Finance Corporation, cites a number of solutions developed to support emerging markets' integration of increased disclosure requirements, helping to provide more investment opportunities.

However, there is a risk of developing countries becoming excluded from many of the economic benefits of AI, with significant capital costs, risks of labour automation and potential environmental consequences, write Francesco Tasin, research assistant at the University of Oxford's Future Impact Group, and Julian Jacobs, senior economist, OMFIF's Digital Monetary Institute. Institutions will need to collaborate with the global South as AI advances.

Demand for solutions to reduce the risks and impact of climate change is creating opportunities for investors. Bing Leng, board member, International Sustainability Standards Board, provides insight into the ISSB's recently developed disclosure taxonomy. The taxonomy is designed to support investors and other capital providers to digitally compare and analyse sustainability-related financial disclosures.

Tracking and reporting environmental impact can improve investors' accessibility to information and combat greenwashing. Public and private sector partnership is crucial to this. Georgina Lok, head of market development, Hong Kong Monetary Authority, explains how tokenised green bonds are paving the way for digital sustainability and examines the potential they have to transform capital markets.

* This article first appeared on 18 July 2024.

As Trevor Allen, head of sustainability research at BNP Paribas, argues, ‘data-driven analysis is the best tool to find the most promising sustainable investment opportunities’. Combining both thematic screening and quantitative analysis, we can begin to crowd investor allocations into emerging technology and sustainable markets.

Other examples of innovation include a model for identifying companies in the business of adaptation and resilience across regions, sectors, growth stages and asset classes. This has been developed by the MSCI Sustainability Institute, in partnership with the Global Adaptation and Resilience Working Group, to support the identification of opportunities in climate-orientated finance, writes Umar Ashfaq, research director at MSCI.

While advancements in AI and other innovative technologies can cause uncertainty, the financial sector must capitalise on and integrate these tools to support better investment practices, data and information as well as risk management. Technology developments provide huge opportunities for scaling up a sustainable economy.

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Data and Measurement

The Challenges Facing Economic Measurement and Creative Solutions⋆

By ADRIANA D. KUGLER*

When Federal Reserve officials tell audiences that their judgments are data dependent, some skeptics perhaps presume that monetary policy is already on a path set in stone. But most in this room likely know what I mean when I talk about data dependence. I am a member of the Federal Open Market Committee (FOMC), which, of course, pursues a dual mandate of maximum employment and stable prices. When I say I am data dependent, that means I am considering the totality of the data—the full range of economic indicators that provide a sense of where the labor market, economic activity, financial conditions, and inflation have been and where they might be going. Policymakers must have high-quality and accurate data to understand the economy and set the correct policy.

The truth is that it is not just the Fed that needs data. Consumers, businesses, investors, and others have access to more information than ever before when making decisions. It is incumbent on economists, private- and public-sector data collectors, and others to ensure that available data are carefully collected, accurately measured, and clearly presented, and that data collection and measurement efforts are further enhanced and continue to improve.

To be sure, data collection and economic measurement can be challenging, and different types of data face pros and cons, which is why I take an expansive approach to using data, as I will explain a bit later. But I will begin by highlighting a few challenges to economic measurement. I will then provide some examples of how those challenges might be addressed. I will also provide examples of how nontraditional data generated by the private sector can help provide additional angles from which to view aspects of the economy that may not be clear in data produced by government statistical agencies. Finally, I will offer some examples of how, in recent years, our statistical agencies have adapted and innovated, sometimes by incorporating private-sector data to address specific measurement challenges I have in mind. To be clear, my interest in nontraditional data is not a critique of the statistical agencies. To the contrary, official data are critically important to policymakers, researchers, and the public. Rather, I view public and private data as being complementary and helping to provide a more complete picture of the economy.

Importance of Data

Economic measurement, the task some of you contribute to every day, is at the core of real-time policy analysis and forecasting. We at the Board of Governors rely on a broad array of data produced by both government and the private sector. And we carefully scrutinize every important economic release and are very familiar with the methodological details of those reports. Suffice it to say, we care a lot about economic measurement at the Fed.

And the Fed itself produces many important data series, including two principal federal economic indicators: the Industrial Production and Capacity Utilization report and the Consumer Credit statistical releases. In addition, our website features numerous other data products that look at bank

⋆ This article appeared at the 21st Annual Economic Measurement Seminar, National Association for Business Economics Foundation, Washington, D.C. Published on July 16, 2024.
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assets, liabilities, and structure; monetary aggregates; international finance; business finance; and household finance—including data on the level, share, and composition of wealth for households at different points in the wealth and income distribution, as well as for different demographic groups. The Board also conducts separate surveys of consumers and household economic decision making and surveys of loan officers and credit officers, well known as the SLOOS and the SCOOS. Beyond the Federal Reserve Board, each of the Federal Reserve Banks engages in measurement and data production of various kinds, including closely watched surveys of firms and households. For example, the New York Fed conducts a survey of consumer expectations, which was just released last week, the Atlanta Fed tracks wage data, the Richmond Fed surveys firms on price-setting behavior, among other things, and several Reserve Banks publish alternative measures of inflation and reports on factory and business activity in their regions.

Challenges with Measurement

Of course, as one reviews various sources of data, one can see that there are some common measurement challenges. I will mention a few. These are not new, nor is my list exhaustive. My intent here is to focus on challenges that highlight the tradeoffs in using public and private data and to show how these sources of data complement each other.

The first challenge I will identify is that traditional measurement approaches sometimes struggle to track rapidly changing economic developments. This was the case early in the pandemic and is often true at turning points in the business cycle. Of course, it is at those very moments when policymakers, and the public, are most critically interested in how the economy is faring. The reasons for this lag are well known. Statistical agencies can only survey households and businesses every so often, and it takes time to compile and publish high-quality statistics. However, financial markets and business decisions move quickly. Reports produced on a monthly or quarterly basis, often with a multi-week lag, may not be available with sufficient frequency to inform real-time decisions. Also, some indicators, by design, take on new market information slowly. A recent and relevant example is housing services inflation, as measured as part of the consumer price index (CPI) and the personal consumption expenditures price index. Both rely heavily on slowly changing leasing agreements that only adjust to market conditions over many months. Business entries and exits, sometimes called births and deaths, are similar in that they take time to appear in surveys that underlie important statistical products. I will touch on that a bit more later.

A second challenge is that many statistical reports were created decades ago and may not be focused on newer or growing sectors of the economy. For example, there are monthly reports on factory orders, shipments, inventories, and output among the principal economic indicators. Because developments in the goods sector can matter importantly for economic fluctuations, that level of detail is indeed helpful to have. But we would benefit from the same depth of information on domestically produced services, too. While service-sector output constitutes a larger share of U.S. gross domestic product (GDP), the category has only one single dedicated quarterly report, even though much of the post-pandemic recovery requires us to understand how services consumption and employment have evolved. For example, did you know that quarterly hog and pig counts are a principal economic indicator? Yet, there is not a regular government report specifically dedicated to the gig economy. I am certainly glad we collect data for important agricultural commodities, but I think we should probably be examining the large and diverse gig economy as much as we do the pig economy. I believe the statistical agencies grapple with these issues, and it takes time to lay the groundwork and develop new data series, but this challenge is a real one. If reports are built for the past, that may mean they struggle to capture big developments today and in the future, such as the changing nature of where and how people work or the rising use of artificial intelligence (AI) technology.

Finally, there is an impediment that everyone here is acutely aware of: These challenges are made even more difficult because official surveys have seen declining survey response rates. That results in lower precision of statistical estimates and can lead to the need for further, costly surveys to collect the necessary amount of information, as one may need to conduct several rounds of data collection before having sufficiently large samples that can provide reliable estimates. Declining response rates may also be selective and pose a challenge to representing the broader population. Innovative methods for data collection and behavioral interventions to encourage survey responses can be used to address concerns and are being tried in some cases by statistical agencies.

A Data Explosion

While these challenges in traditional data that I have described may take some time to be addressed, I am encouraged by the explosion in data produced by the private sector over the past decade or so that can greatly enhance our understanding of the economy. Such data give an opportunity to measure economic developments with greater timeliness, at a higher frequency, and with more granularity. That said, those data often face their own challenges, including issues with representativeness, the lack of methodological consistency, and a short time-series history. Nevertheless, such nontraditional data can be helpful, especially when used jointly with official statistics to which these new sources can be benchmarked.

A prominent example of valuable private-sector data is employment statistics from payroll providers. Such weekly data allowed economists at the Federal Reserve Board to understand, essentially in real time, employment losses when the pandemic first took hold in the United States in March 2020. In comparison, it took until early May to get similar information from the Bureau of Labor Statistics' (BLS) employment report. Indeed, in trying to understand the rapidly changing economy during the pandemic, Fed economists closely followed a variety of privately produced higher-frequency data. These included reports on restaurant reservations, hotel occupancy, and airport passengers. Economists even used anonymized phone-tracking data to estimate business shutdown rates and trends in retail spending. Credit and debit card transaction data are another example of a helpful, private-sector tool that economists use to understand consumer behavior in various sectors or regions in close to real time. These figures provided what proved to be a pretty reliable picture of economic developments during the pandemic, well before traditional statistics—such as quarterly GDP and monthly retail sales—became available. The need for timely, high-frequency information is not limited to pandemics and turns in the national business cycle. For example, Federal Reserve Board economists have used credit and debit card transaction data to estimate the effects of local natural disasters almost in real time when official statistics are often not available.

When we look at economic turning points, it is also important to consider reports on expectations and anticipated outcomes from nongovernment sources. Those include surveys of expectations of future inflation, anticipated hiring or layoffs, and consumer and business sentiment on the economy or the path of the economy. I pay close attention to these surveys because they are forward looking and help inform where behaviors by businesses and households may be trending.

Tracking supply chains is another area where private-sector sources have proved extremely valuable, especially during the COVID-19 pandemic. One important source of such data is the Institute for Supply Management's surveys of purchasing managers. While those series are well established and closely followed, Fed economists found them particularly helpful in recent years to observe supplier delivery times, order backlogs, items in short supply, and measures of inventory satisfaction. Other private-sector data give economists insight into supply chains as well, including measures of air, sea and overland freight costs; the number of waiting container ships; and the volume of railroad traffic. These data series offered additional details on the level of constraint in supply chains following the pandemic shock, alongside reports from official statistical agencies.

I will offer two additional examples of how I use nontraditional data at the Fed—one from each side of our dual mandate. To better understand the labor market, I have been watching job vacancy, quit, and layoff data closely for many years. The official government source for this information is the Job Openings and Labor Turnover Survey (JOLTS). While extremely important, JOLTS data are released with a lag of more than a month. And this survey has seen a particularly large decline in response rates. This instance turned out to be another example of where private data could enhance my understanding. Job search sites' data on postings are updated more frequently than the federal report and generally confirm that JOLTS measurement appears to be accurate. Similarly, JOLTS data on layoffs are lagged. That is why I also look at other figures, including unemployment insurance claims; Worker Adjustment and Retraining Notification, or WARN, notices; employment reductions from the Institute for Supply Management; anticipated layoffs from outplacement firm Challenger, Gray and Christmas; and mentions of layoffs in earnings reports and the Beige Book.

With inflation, an important component to track recently has been housing services costs, which is typically the single largest expense for U.S. households. Housing services are a big reason why the overall inflation rate remains above our 2 percent target. The official measures of housing services inflation are intended to capture overall growth of housing costs—that is, costs incurred by owners and renters—drawing from a survey of rental lease terms. But rental leases tend to change only gradually, so the official measures can significantly lag current market conditions. That is why policymakers can also rely on current market rent data, showing what landlords charge new tenants, information that is available from multiple private-sector sources. Those data can provide some early signal of where official housing inflation series are likely headed.

Here I have mentioned just a handful of private-sector data examples. But each of these helps address measurement challenges I mentioned earlier. From these data, we can gain timeliness and higher frequency, with a better read on underlying economic dynamics like market pricing. And with often low survey response rates in official data, these private-sector sources may provide another perspective on underlying economic developments.

Official Innovations

While I see great value in considering data produced outside of statistical agencies, the private sector is not the only place where innovation in economic measurement is occurring. Statistical agencies have long made use of private-sector data, so there is nothing "nontraditional" about using private-sector data to shed more light on economic measurement; in fact, it is a long tradition. I can think of several examples.

The Bureau of Economic Analysis (BEA) taps many private-sector sources in its compilation of GDP statistics, covering topics ranging from oil and gas drilling to insurance premiums. At the Board, the Industrial Production and Capacity Utilization report features a long list of private data sources for the output of products ranging from semiconductors to lumber. And our Consumer Credit statistics rely in part on data from a large credit bureau and an association of credit unions. I could go on, but the broader point is that our country's statistical agencies do not ignore valuable sources of economic measurement that the private sector has to offer—far from it. They make significant use of private information in combination with official surveys and administrative data. And they are actively advancing that practice further.

Economic developments in recent years have been met by a flurry of innovation and adaptation from statistical agencies, relying not only on private-sector sources but also on novel uses or production of government data. One notable product that I have mentioned in past speeches is the Census Bureau's Business Formation Statistics (BFS). First published in 2018, the BFS series was developed in collaboration with the Board's staff and relies on new business applications for Employer Identification Numbers, or EINs. During the early months of the pandemic, weekly data from the BFS provided a timely indicator of the initial decline in economic activity, and then later the figures likewise documented the rebound.

Another measurement invention was created during the early months of the pandemic: the Census Bureau's high-frequency "Pulse" surveys—one each for households and businesses. Those surveys leveraged existing Census Bureau resources to provide quick-turnaround information about the rapidly evolving health and economic situations.

The Household Pulse Survey was rapidly developed shortly after the pandemic struck the U.S., with participation from a broad set of government agencies. The survey provides a range of economic information about Americans, including the pandemic-induced jump in remote work. The survey has adapted over time as the health and economic situations have evolved, incorporating questions about vaccination, access to infant formula during a product shortage, inflation, and other issues. The Small Business Pulse Survey provided timely information about employment, revenue, financial conditions, and expectations for future growth, survival, and needs in the highly uncertain pandemic environment. Later iterations of the survey shed light on supply chains, as the United States grappled with input shortages and disrupted freight networks. The Small Business Pulse Survey was discontinued, but it planted the seeds for the current Business Trends and Outlook Survey, which provides a similar wealth of information about business conditions and is already the gold standard for understanding trends such as business-level implementation of AI technologies.

The national accountants at the BEA have also shown a flair for innovation. For example, the bureau has introduced many "satellite accounts" and other special series over the years—some still in experimental form—with national account–style information about special topics, including health care, income distribution, global value chains, small business, the digital economy, and the space economy, among others. Thinking of special-topic national accounts is a way the statistical agencies can keep up with an ever-evolving economy. In fact, the treatment of research and development investment in current GDP methodology originated as a satellite account.

Another example comes from the BLS and, specifically, how the agency tracks market rents as part of its inflation data series, an issue I mentioned earlier. While the official statistics on housing services inflation do not break out new tenant market rents from the rest of the index, BLS staff recently began exploiting the housing survey data that underlie the CPI to construct a New Tenant Rent Index (NTRI). The NTRI looks at quarterly changes in the terms offered in new leases. Data users are still learning how to best combine the signal from the NTRI with other measures of market rents, but this research effort shows the agility of the statistical agencies in responding to current needs of understanding inflation dynamics.

These are but a few of the many innovations that have arisen from statistical agencies. Regarding the measurement challenges I mentioned earlier, the examples I just listed have helped observers better track the economy during periods of rapid change or when there are shifts in the structure of the economy, such as increased remote work or the rise of AI, changes to immigration patterns, and supply bottlenecks. A harder nut to crack is declining response rates, but it may be that more integration of private-sector data with official data provides an avenue for addressing this problem as well.

Seeing Where the Economy Stands

I hope my discussion today highlights the tremendous innovation in economic measurement in recent years, supplied by both inventive private-sector data generation and nimble statistical agencies. It is incumbent on economists, researchers, and officials from statistical agencies around the world—many of you who are here today—to be open to new and diverse ways to measure the economy so that this healthy pace of innovation can continue.

I want to again stress two things. First, the United States has world-class statistical agencies that have both a long history of rigorously constructing government data sources and adapting and combining information from private-sector with official sources. And, second, private-sector data will continue to be useful for providing granularity, timeliness, and frequency advantages that can complement official statistics, so long as data users are appropriately cautious. Despite the many challenges, the future of economic measurement is bright. The statistical agencies have already proven their ability to innovate and adapt, even under tight resource constraints. And the wealth of private-sector data sources will only expand in the future. When I form my economic outlook and policy assessments, my approach is to watch a wide range of indicators, both official and unofficial, with a focus on the strengths and weaknesses of each.

All the data I carefully examine in my current role allow me to better understand where the economy stands. My colleagues on the FOMC and I make determinations on the policy actions that will be most appropriate for achieving our dual mandate, and so I would like to briefly share my views on how I see the economy evolving and how I see appropriate monetary policy.

Despite a few bumps at the beginning of the year, inflation has continued to trend down in all price categories. But inflation remains above our target. I do believe that supply and demand are gradually coming into better balance. Supply-side bottlenecks continue to heal, and demand has moderated amid high interest rates and as households' excess savings have depleted. The labor market likewise has seen substantial rebalancing and nominal wage growth moderating as a result—even while keeping up with inflation. Job vacancies and the quits rate have come down from their historically high levels from a couple years ago, and the vacancy-to-unemployment ratio is now back at its pre-pandemic level. On the labor supply side, the increased entry of prime-age workers and immigration have both helped to expand the labor force and compensate for excess retirements we saw during the pandemic. This continued rebalancing suggests that inflation will continue to move down toward our 2 percent target. As I have discussed in recent remarks, if economic conditions continue to evolve in this favorable manner with more rapid disinflation, as evidenced in the inflation data of the past three months, and employment softening but remaining resilient as seen in the past few jobs reports, I anticipate that it will be appropriate to begin easing monetary policy later this year. But my approach to this policy decision will continue to be data dependent and to rely on multiple and diverse sources of data to form my view of how the economy is evolving, especially as upside risks to inflation and downside risks to employment have become much more balanced. If the labor market cools too much and unemployment continues to increase and is driven by layoffs, I would see it as appropriate to cut rates sooner rather than later. Alternatively, if incoming data do not provide confidence that inflation is moving sustainably toward 2 percent, it may be appropriate to hold rates steady for a little longer.

As I conclude, I want to thank those of you in this room who do the hard work each day to create and analyze the economic data that allow not only policymakers like me, but also consumers and businesses, to gain a better understanding of ongoing developments in the U.S. economy. And let me thank NABE again for having me.

Digital/Technology Innovation

The Process could Completely Revamp Legacy Market Infrastructure*

By DOM GHAZAN *

Financial services can find innovation in tokenisation.

The rights to various assets can be converted into digital tokens by virtue of distributed ledger technology. This process enhances accessibility and liquidity and can apply to all title-based things, both tangible and intangible in nature. The most prominent use cases include real estate, legacy financial instruments, commodities, intellectual property, art and digital assets.

Tokenisation enables fractional ownership – making investments more accessible – while increasing transparency and reducing transaction costs. This innovative approach has the potential to restructure asset ownership and trading, offering a more efficient and inclusive investment landscape.

There are questions concerning where the cash leg of tokenised asset transactions can come from. This can range from wholesale central bank digital currencies, tokenised commercial money or private sector stablecoins. Wholesale CBDCs, issued by central banks, offer high security and efficiency for large transactions. Tokenised commercial money, managed by commercial banks, provides familiarity and integration with legacy banking services, ideal for retail and business use. Private sector stablecoins, pegged to stable assets, enable fast, low-cost transactions and are suited for global and decentralised finance applications.

The choice depends on regulatory factors, transaction scale and the need for security and efficiency. Interoperability is key to countervail potential market fragmentation, thereby enabling the next iteration of global liquidity provision.

Bearer assets

Tokens can be either bearer assets or represent claims upon an asset. Bearer assets, which directly equate to ownership, indicate that possession of the token is sufficient to claim ownership – akin to physical cash or bearer bonds. This simplifies transactions by eliminating intermediaries.

On the other hand, tokens that represent claims provide a legal entitlement to the underlying asset, often managed by a custodian or intermediary, ensuring regulatory compliance and legal protection. The design and legal framework of the token determine its nature, with bearer assets offering immediacy and tokens as claims ensuring regulatory adherence.

Investors can hold tokens in digital wallets, either custodial (managed by third-party services) or non-custodial (self-managed). Deposit services are provided by traditional financial institutions, specialised crypto custodians like PolySign or Uphold and various DLT platforms. Measures such as robust private key management, cold storage solutions, regulatory compliance and insurance collectively ensure the safe and secure holding and management of tokenised assets. The inherent security features of DLT, such as immutability and decentralised consensus, further protect token transactions and ownership records.

Changes to market infrastructure

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* The article first appeared on OMFIF July 19th 2024.
* Dom Ghazan is Managing Director at Global Trade Finance.

By streamlining asset issuance, trading and settlement through DLT, tokenisation stands to completely revamp legacy market infrastructure. As settlement becomes near-instantaneous, and custody shifts to digital wallets and specialised crypto custodians, there is less reliance on trusted intermediaries, which increases efficiency.

While the role of central securities depositories may also diminish, they can remain relevant by incorporating DLT, offering tokenisation services and ensuring regulatory compliance. This adaptation allows CSDs to bridge traditional and tokenised markets, supporting a smooth transition while maintaining trust and adherence to regulatory standards.

This approach to innovation does not just serve financial markets. Tokenisation also benefits retail users by enabling fractional ownership, increasing liquidity and lowering transaction costs. It offers access to new investment opportunities like real estate, art and private equity, previously limited to institutional investors.

The process of tokenisation also democratises investing, making it more accessible and cost-effective for small investors to better diversify portfolios and participate in a wider range of markets. This will enable a more inclusive, fair and equitable financial system.

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National Approaches to AI Safety Diverge in Focus*

By JULIAN JACOBS*

Domestic initiatives in artificial intelligence safety are beginning to emerge in countries around the world. In the last 18 months, the UK, US, Canada and Japan have created national AI safety institutes that aim to address governance and regulatory challenges, including issues related to misinformation, human safety and economic equity. Although they are unified by a common goal of creating frameworks for safe AI innovation, they diverge in meaningful ways.

US: prioritising domestic developments

The US AI Safety Institute was launched in February 2024 by the National Institute of Standards and Technologies. With a total funding package of $10m, AISI aims to 'facilitate the development of standards for safety, security, and testing of AI models, develop standards for authenticating AI-generated content, and provide testing environments for researchers to evaluate emerging AI risks and address known impacts'. AISI is focused on developing methods for the detection, tracking and potential watermarking of synthetic content.

Such objectives are focused on actionable policies and the development of safety frameworks that can avert significant risks to 'national security, public safety and individual rights.' This includes coordinating with 200 companies on red-teaming exercises to identify vulnerabilities and develop mitigation strategies.

Throughout its early existence, the AISI was chiefly focused on US domestic safety concerns, with sparser public language about the need for global collaboration. This may be changing, with a new UK partnership to develop safety tests for advanced AI models as well as recent statements of purpose to foster a global AI safety institute, although this remains very preliminary.

UK: voluntary commitments, global collaboration

The UK AI Safety Institute, founded in April 2023, evolved from the Frontier AI Taskforce with an initial £100m investment and ongoing funding as part of a £20bn research and development initiative. In contrast to the US, the UK AI Safety Institute focuses on a broader array of safety considerations and stakeholders.

Its mission is to ensure the safe development of advanced AI systems through evaluations, foundational research and information sharing. It places a large emphasis on collaboration with international partners, industry, academia, civil society and national security agencies to advance AI safety and foster global consensus and institution building. In practice, that has meant an approach to AI that is bent on making the UK central to the discourse on global safety but is not immediately interested in creating regulatory obligations for AI firms.

The UK has remained overwhelmingly focused on voluntary commitments from AI companies, relying on existing regulations to address new risks. As Ellie Sweet, head of AI regulation strategy, engagement and consultation at the UK Department of Science, Innovation, and Technology, remarked at OMFIF's AI in finance Sseminar: 'It's better to have our existing expert regulators interpret and apply those principles within their existing remits, rather than necessarily standing up a whole new regulatory framework.'

Meanwhile, the UK has been very active in its development of international partnerships, including a new UK AI Safety Institute Office in San Francisco and a UK-Canada science of AI safety partnership.

Canada: investing in becoming an AI leader

In April 2024, Canada announced plans to develop its own AI Safety Institute as part of a broader investment in AI by the Canadian government. The institute is funded with $50m and aims to protect against risks posed by advanced AI systems while also solidifying Canada's place as a potential leader in AI development.

It will work under the broader Pan-Canadian Artificial Intelligence Strategy, which focuses on commercialisation, standards and research. The institute aims to help Canada better understand and mitigate the risks associated with AI technologies while also supporting international governance efforts. This includes aligning with international AI governance principles set by groups such as the G7 and the Global Partnership on AI to ensure that domestic AI innovation is responsibly conducted.

Japan: initiatives still in early phase

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* This article first appeared on 25 June 2024（OMFIF）.
* Julian Jacobs is Senior Economist, Digital Monetary Institute, OMFIF.

Japan has launched an AI Safety Institute that is very similar to the UK's. The country's institute – founded in January 2024 within the Information-technology Promotion Agency – involves decentralised AI governance across many governmental departments such as internal and foreign affairs. The exact investment amounts have not been publicly disclosed.

Current initiatives involve the creation of AI safety standards, conducting cross-department research on AI implications and opportunities and developing international partnerships with other emerging AI governance leaders, such as those in Europe and the US, to co-ordinate global AI safety and risk standards. The details of many of these initiatives are still emerging.

Global Economy

Maximizing RCEP's Potential☆

By KAO KIM HOURN*

Robust public-private partnerships are key while media and think tanks can direct more resources to help MSMEs fully integrate into the new ecosystems

The full implementation of the Regional Comprehensive Economic Partnership agreement by all 15 signatory parties in 2023 marked a key milestone for the establishment of the largest free trade agreement in the world, with a combined GDP of $29 trillion and 2.3 billion people. In order to maximize the benefits of the RCEP, robust public-private partnerships are essential. Additionally, the role of media and think tanks is also indispensable, as they can promote greater awareness and understanding of businesses of the RCEP.

The RCEP is a new generation of ASEAN-led FTA that is comprehensive in scope, deep in commitment, and more adaptive to emerging opportunities and challenges. It enables the region to achieve transformative progress toward a new level of economic integration, builds the foundation for digital and sustainable future, and enlarges economic boundaries for traders and businesses in the Association of Southeast Asian Nations and other RCEP countries, including China.

Since the entry into force of the agreement in 2022, ASEAN's trade and investment relations with RCEP countries have flourished even further. In 2023, the total trade of ASEAN with other RCEP Parties amounted to $1.2 trillion, contributing 35 percent to total ASEAN trade. In particular, China remained ASEAN's largest partner, with trade amounting to $702 billion, thus contributing 20 percent to total ASEAN trade. The inflow of foreign direct investments from RCEP partners to ASEAN in 2022 increased by 718.1 percent from Australia, 28.9 percent from Japan, 90.0 percent from New Zealand, and 23.9 percent from Korea, respectively.

Meanwhile, China's trade figures with the other 14 RCEP members also saw robust growth, amounting to approximately $1.8 trillion in 2023, which represents 30 percent of China's total merchandise trade. According to China's Customs statistics, ASEAN also remained China's largest trading partner in 2023, contributing around 15 percent to China's total trade.

The trade and investment figures clearly demonstrate the potential of the RCEP. It is important for all stakeholders to strengthen their collaboration to ensure that the benefits promised by the RCEP can be delivered. While governments and policymakers intensify their efforts to promote the RCEP, media and think tanks play a critical role in amplifying the messages to the private sector, and conversely, to raise challenges faced by the private sector to the policymakers.

First, a robust public-private partnership is key to unlocking the immense potential of the RCEP.Trade facilitative measures, such as self-certification and advanced rulings, are being implemented by the RCEP Parties to facilitate trade processes in the region. The robust and advanced provisions of the RCEP offer significant opportunities for businesses to adopt a new strategy in favor of nimble and resilient growth by diversifying trade and investment sources and recalibrating supply chains to withstand future economic disruptions.

This would require a robust public-private partnership, enhanced awareness among business communities regarding relevant RCEP provisions, and the establishment of intensive business networks throughout the region. It is also necessary to leverage on various mechanisms under the RCEP, such as the exchange of information, advocacy programs, dialogues, and active engagements, to effectively identify

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* KAO KIM HOURN is the Secretary-General of the Association of Southeast Asian Nations..

and address challenges faced by businesses on the ground. The role of media and think tanks on this matter is paramount.

Second, the RCEP must work for all businesses, particularly micro, small, and medium enterprises (MSMEs), which account for over 95 percent of registered businesses and provide between 30 percent and 85 percent of total employment in RCEP economies. MSMEs must be equipped with the necessary know-how to take advantage of the RCEP and other FTAs, ensuring inclusive growth and leaving no one behind. The RCEP includes specific provisions for economic and technical cooperation, under which the Parties shall develop tangible projects to enhance the capacity of relevant stakeholders, including MSMEs.

ASEAN has launched the ASEAN Tariff Finder, an online tool open for use by all businesses operating in ASEAN, designed to help traders maximize the benefits from ASEAN+1 FTAs, the RCEP, and other bilateral FTAs of ASEAN Member States. Feedback from RCEP users, especially MSMEs, is crucial for identifying pain points or bottlenecks that could inform further improvements in the implementation of the RCEP.

Third, the RCEP must remain open, inclusive, and responsive to ever-changing business needs by keeping trade rules up-to-date and fit for purpose. Emerging as one of the most remarkable FTAs in the world today, the RCEP demonstrates the unwavering commitment of its Parties to upholding a rules-based and open trading system. This system is the fundamental foundation for stable, predictable global trade governance and our ability to withstand disruptions of supply chains. Inputs and views from the media and think tanks are invaluable as it will provide the policymakers with basis to improve the agreement.

The collective efforts of all RCEP Parties, including ASEAN and China, as well as the media and think tanks will enable constructive dialogues to support the commitment of the RCEP Parties to build a partnership for growth. This will also contribute to a better understanding and greater utilization of the RCEP, benefiting all countries participating in the RCEP. With the collective efforts and the active support of our partners in the media and think tanks, the RCEP will continue to fuel our region's growth and prosperity.

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Will Growth in Regional Payment Systems Spur De-dollarisation?*

By JULIAN JACOBS*

Tech development to drive dollar decline does not necessarily mean it will occur.

There is an emerging belief that regional payment systems may propel de-dollarisation as well as a regional clustering of economic activity. Despite serious technical and geopolitical hurdles, such systems may have the potential to shift the global balance of financial power. There are, however, many reasons to be doubtful. Regional payment systems continue to be plagued by implementation challenges. Evidence also suggests many countries are looking to diversify their currency holdings, rather than de-dollarise.

Predictions about the potential decline of the dollar's dominance in the global monetary system have been long-standing. Pronouncements about imminent de-dollarisation are often fuelled by the wish of some countries to bring economic activity closer to their borders and wane off US reliance. A shift of this kind would be significant for global financial markets and economies, and it is why discourse on de-dollarisation has featured prominently in OMFIF's research – including the Global Public Investor and Future of Payments reports. This theme was prominent again at the 2024 Digital money summit, where Douglas Arner (University of Hong Kong) and Elliot Hentov (State Street) spoke about the potential role of repayment systems in diversifying global currency holdings.

Make no mistake, the implications of de-dollarisation are considerable. For the US, it could mean diminished geopolitical leverage and elevated borrowing costs – the consequences of which, both on American hegemony and on its domestic socio-economic affairs, would be extremely damaging.

On the other side, countries seeking alternatives to the dollar may be able to insulate themselves from US-originated shocks, sanctions and events. In theory, this could strengthen countries' economic sovereignty while decreasing the US' global influence. As Arner emphasised on a panel at the summit, there have been a 'significant number of technological developments in the last 15 years… but in the last four years, we have seen a political push to trigger a rethinking of USD's role in the global economy'. This convergence of technological innovation and shifting geopolitical dynamics is creating fertile ground for the surfacing of regional payment systems and alternative currencies.

Projects and experiments

What do these regional systems look like? As discussed in the 2023 Future of Payments report, projects like mBridge – a cross-border payment platform utilising central bank digital currencies – exemplify the growing interest in establishing financial infrastructure outside of the traditional dollar-centric model. The founding members of mBridge include the Hong Kong Monetary Authority, the Central Bank of the United Arab Emirates, the Digital Currency Institute of the People's Bank of China and the Bank of Thailand.

Other regional payment systems have emerged with the aim to create regional clusters of financial infrastructure, such as the Pan-African Payment and Settlement System, enabling cheap, instant and efficient payments denominated in local currencies. The arrival of these systems as an effective vehicle to reshore economic activity and currency holdings may coalesce with new political thinking on US global power to spur a shift away from the dollar.

Still, there are many reasons to be sceptical that regional payments will spell the decline of the dollar. First, the dollar remains deeply entrenched as the world's primary reserve currency, accounting for 58% of global reserves. This dwarfs the Chinese renminbi, which sits at just 2.7% of reserves. As Arner commented, the dollar continues to play a role as the global 'store of value, financial instruments and liquidity'. However, the emergence of the 'technological capacity' to create regional payment systems and move away from the dollar, Hentov commented, does not mean that there will be adequate demand for such a shift.

'Trading in issues for more issues'

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* This article first appeared in OMFIF on May 30, 2024.

* Julian Jacobs is Senior Economist, Digital Monetary Institute, OMFIF.

There remain significant technical and geopolitical barriers to regional payment systems. The dollar, for all of its potential flaws, provides a way for many countries to insulate themselves from those issues. As Arner mentioned, many countries 'don't want to trade one dominant instrument, with its issues, for potentially another dominant instrument with a new set of issues'. For instance, regional payments continue to suffer from weak implementation, infrastructure and complex geopolitical obstacles among participatory economies.

This is why the emergence of the technological capacity to drive dedollarisation does not necessarily mean de-dollarisation will occur. Of course, de-dollarisation has already been underway for years, with the currency's global share of reserves slipping downward each five-year period. Yet this is caused in large part by the rise of the euro. The euro, Arner remarked, has been 'remarkably stable, serving as the world's second reserve currency'. OMFIF research has previously suggested that the greatest threat to the dollar's continued majority share of global reserves comes not from the renminbi or regional payment systems, but rather from the euro. Unlike many other currencies or regional financial contexts, the euro has excellent liquidity and infrastructure. Still, as Hentov noted, the evidence suggests countries are simply looking primarily to diversify their holdings, rather than replace one dominant currency with another.

Touching on these topics and more, the Digital money summit this year served as a useful vehicle to re-examine the current state of the dollar. And although country exhortations for de-dollarisation are nothing new, the digitalisation of global finance underscores how new innovations have given new life to dollarisation debates.

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Milestone of CCB Shows Growing Role of RMB⁎

By SHI JING[*]

The wide gaps in interest rates between China and the United States can facilitate the development of the offshore renminbi market, which, in turn, could help further internationalize the Chinese currency, said experts.

Their comments were made when China Construction Bank's London branch saw its cumulative clearing value top 100 trillion yuan ($13.8 trillion) by May 22, sustaining its position as the largest offshore RMB clearing bank outside Asia for the eighth consecutive year.

According to Yang Aimin, head of CCB's London branch, this achievement is inseparable from the various business innovations made recently, like RMB syndicated loans for mergers and acquisitions, issuance of offshore RMB green bonds, and use of yuan-denominated bonds as qualified collateral.

More importantly, the record reflects the RMB's strengthening function in payments, investments and financing, and its growing role as an international currency reserve, he said.

According to the Society for Worldwide Interbank Financial Telecommunication, or SWIFT, a global financial messaging services provider, the RMB retained its position as the fourth most active currency for global payments by value for the sixth consecutive month in April, with a share of 4.52 percent.

Li Yuanxiong, general manager of the Financial Markets Department of Chiyu Banking Corp Ltd, said that the interest rate of the offshore RMB is quite competitive when compared with the US dollar and other foreign currencies. In this sense, financing via the offshore RMB can be considered. Indeed, more Chinese mainland institutions have been raising funds via the offshore RMB in Hong Kong since 2022. This is also conducive to the internationalization of the Chinese currency, he said.

As of Friday, the US 10-year treasury bond yield, the benchmark for nonrisk interest rate, is 214.7 basis points higher than the corresponding one in China.

Bloomberg data showed that non-sovereign entities issued 46.2 billion yuan worth of dim sum bonds — offshore yuan-denominated bonds issued in Hong Kong, in March. This value, the highest since 2007, was up 31 percent year-on-year. The combined dim sum bonds issued in the first three months also set a record high of 98.5 billion yuan.

Li Qinghe, chief fixed income analyst at Huafu Securities, said the US interest rate hikes have elevated the financing costs of dollar-denominated bonds. Some issuers have thus switched to offshore RMB bonds due to cost concerns, she said.

As calculated by Bank of China, the combined incremental value of the yuan-denominated bonds issued by overseas institutions in the Chinese onshore market, the offshore RMB bonds and the RMB loans provided by Chinese financial institutions in overseas markets neared 749.4 billion yuan in 2023, up 93 percent year-on-year.

Therefore, the RMB overtook the Japanese yen to become the world's thirdlargest financing currency for trade purposes last year, said Chen Weidong, director of BOC's research department.

"Against the backdrop of tightening liquidity in Europe and the US, the RMB's financing value has become increasingly noticeable, making the currency more widely accepted in the international market," he said.

Chen further said that the offshore market will be an important venue where the RMB can seek substantial development, given that China's capital account is not fully opened yet. The offshore RMB market also exerts impact on the results of China's macroeconomic policies, the stability of the country's foreign exchange market and the RMB's pricing power. A balance between the onshore and offshore markets is crucial to advance the RMB's internationalization.

⁎ This article first appeared at China Daily.
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IMF Stand-by

IMF Executive Board Concludes the Third Review Under the Stand-By Arrangement for the Republic of Serbia*

By IMF

The IMF Executive Board concluded the third review under the Stand-By Arrangement (SBA) with the Republic of Serbia, authorizing additional access to about EUR 400 million (SDR 316.46 million). The authorities will continue to treat the SBA as precautionary and will not make the purchase available upon the approval of this review.

Macroeconomic outturns under the program remain strong. Growth is increasing, inflation is falling, the current account deficit has narrowed, reserves are at record highs, and public debt is declining. The authorities are firmly committed to their 2024 fiscal plans, which are aligned with the SBA's fiscal targets, but higher public investment mean that deficits over 2025-27 are set to be higher than previously envisaged. Stepped-up public investment will be accompanied by additional transparency and public investment management reforms.

The financial situation of the energy sector SOEs has been stabilized. Structural reforms in the energy sector companies, SOE governance, and broader fiscal management are progressing well.

Washington, DC: The Executive Board of the International Monetary Fund (IMF) concluded the Third Review Under the Stand-By Arrangement (SBA) for the Republic of Serbia. The SBA amounting to about SDR 1.89 billion, or approximately EUR 2.4 billion, was approved by the IMF's Board on December 19, 2022 (see Press Release No. 22/447). With this review, about EUR 400 million (SDR 316.46 million) becomes available. The authorities intend to continue treating the SBA as precautionary and not access the available funds.

With the impact of the energy crisis fading, growth is expected to increase to close to 4 percent in 2024 alongside a robust labor market, real wage increases and higher investment. Annual inflation fell to 4.5 percent in May 2024, moving back to the National Bank of Serbia's target range. The current account deficit is projected to widen to around 4 percent in 2024 as domestic demand improves, with ongoing foreign direct investment strength enabling further reserve accumulation.

The 2024 budget foresees a fiscal deficit of 2.2 percent of GDP, but ambitious infrastructure investment under the government's Leap into the future—Serbia EXPO 2027 development plan entail higher medium-term fiscal deficits than previously envisaged (latest projections are for deficits of 2½ percent of GDP in 2025 and 2¼ percent through 2027). Despite planned higher public investment outlays, public debt remains on a downward path.

The program is on track. All quantitative performance criteria and indicative targets were met, and structural reform momentum has been maintained. Following energy tariff reforms under the program, the finances of the energy SOEs have improved, and fiscal risks have moderated. Advancing the structural reform agenda centered on energy sector and SOE governance, energy pricing, public investment management, and broader fiscal structural reforms, will help address Serbia's remaining vulnerabilities and support long-term growth.

At the conclusion of the Board discussion on the Republic of Serbia, Mrs. Antoinette Sayeh, Deputy Managing Director, made the following statement:

"Serbia continues to recover well from the recent energy crisis, supported by the authorities' strong performance under the Stand-By Arrangement. Growth is recovering, inflation is falling, and fiscal and

* This article first appeared in IMF on 8 July 2024.

external buffers have increased. The finances of energy state enterprises have improved, moderating fiscal risks.

"The return of inflation to the central bank's target band in May is welcome. Maintaining an appropriately tight monetary policy stance will help guard against remaining inflation risks. Serbia's financial sector appears sound while ongoing vigilance is advisable.

"Pursuing prudent fiscal policy remains a priority. While higher public investment is needed, the authorities' new plans mean that fiscal deficits will be higher than under the deficit component of the fiscal rule, which is, as a result, being delayed. Careful prioritization of investment projects, greater transparency, close monitoring of cost pressures, and broader public investment management reforms will help deliver value for money.

"Additional changes to energy pricing and to energy state-owned enterprise (SOE) corporate governance will help bolster their financial positions, make room for energy investment, and contain fiscal risks. Also, progress with broader SOE governance and fiscal structural reforms continues.

IMI International Monetary Review

Macroeconomic

Focus on Near-term Budget Constraints may Miss Looming Long-term Issues⋆

By NIKHIL SANGHANI*

A key political battleground for the Conservative and Labour parties ahead of the UK general election is how they will balance the books. The near-term focus on fiscal sustainability is necessary in the UK and much of the world. But the current discourse overlooks the looming cost of longer-term fiscal issues, such as tackling climate change and ageing populations. Having better metrics to bring such long-term problems into the present may help to prompt more decisive action now.

There is a clear need for governments across the world to get their houses in order. The International Monetary Fund projects that public debt as a share of gross domestic product will continue to escalate in advanced and emerging economies in the coming years, raising questions about the sustainability of public finances. The discourse among many politicians in the UK and across Europe is how to improve fiscal positions in the near term.

However, the focus on budget balancing now risks missing the bigger picture. Demands on public spending will grow in the coming decades on areas such as climate resilience, greening infrastructure and providing healthcare and pensions to ageing populations. The risk is that kicking these issues into the long grass may lead to more disruptive fiscal and social consequences further down the line.

A working paper by Adrien Bilal and Diego Känzig finds that ‘a 1°C rise in global temperature causes global GDP to persistently decline, with a peak loss at 12%’ – suggesting that inadequate public spending on climate mitigation or preparedness will have stark long-run costs.

A reset is needed

Against this backdrop, Mark MacDonald, global public finance management lead at EY, told OMFIF ‘I believe that we’re facing a situation where there is a requirement for a much more fundamental reset in our thinking’ on public spending. This view runs throughout this year’s collaboration between OMFIF and EY on the ‘Future of public money’.

The research project aims to outline how public money could be better allocated through more effective institutions, data and technology. It is being informed by discussions with a panel of public sector experts with experience across government, international organisations, academia and the private sector, and will be supplemented by analytical research and case studies. This will culminate in a report due to be released in October.

One of the key points that has emerged from the expert panel discussions is the intertemporal challenge of fiscal policy: how to address long-term spending commitments in the short term. Political cycles were one reason cited for overlooking long-term issues. Moreover, there is a lack of measurement, reporting and standards to bring issues such as climate change and demographics to the forefront of policy-makers’ minds today.

This was mentioned by Carolyn Bordeaux, senior visiting scholar at the University of Georgia and former member of the US House of Representatives, in a podcast conversation with OMFIF. She emphasised the need to ‘develop present value metrics… about these long-term costs and risks that we face’.

⋆ This article first appeared in OMFIF on 27 June 2024.

* Nikhil Sanghani is Managing Director of OMFIF’s Economic and Monetary Policy Institute.

Bourdeaux provided a clear example where reporting and data have helped to shape decision making. 'The Governmental Accounting Standards Board changed its accounting standards to require state and local governments to build in deferred maintenance into their… financial statements… That deficit started to show up in much more dramatic ways to people, it became present for them.'

A similar process could be used to bake in future sustainability or demographic-related costs into fiscal positions now. Analysis on this front would not be straightforward though there are existing examples. The UK's Office for Budget Responsibility outlined in its 2021 fiscal risks report that 'The fiscal impact of achieving net zero in the early action scenario adds 21 per cent of GDP to public sector net debt in 2050-51'. Worse still, delayed action would increase net debt by 44% over this time.

The European Commission's 2024 ageing report assesses the cost of ageing populations on spending for pensions, healthcare, long-term care and education. It highlights that 'For the EU as a whole, the cost of ageing is expected to increase by 1.2 [percentage points], from 24.4% of GDP in 2022 to 25.6% in 2070'. This baseline assessment is based on relatively upbeat economic assumptions and there is significant divergence between countries. A more unfavourable scenario shows a 2.7pp of GDP increase in spending.

While such analysis may be imperfect, it offers a window into the type of long-term costs that could be standardised, reported and scrutinised within government balance sheets today. Incorporating the present value of future climate-related or demographic costs would worsen existing fiscal positions and add to concerns over the state of public finances globally. Crucially, though, it would help to provide a more holistic assessment of current and future economic and social conditions.

This would be a first step to informing the improved allocation of public funds – not only to improve outcomes tomorrow but for the years, or perhaps decades, to come.

IMI International Monetary Review

Laying a Robust Macro-Financial Foundation for the Future*

By AGUSTÍN CARSTENS*

The global economy seems poised for a smooth landing. As inflation continues its descent towards central bank targets, activity remains resilient. At the same time, the financial system appears to have adjusted smoothly to higher interest rates.

These outcomes were not guaranteed when we met last June. At that time, inflation had started to decline. But this seemed to be an easy gain; further progress looked more difficult. Meanwhile, bank failures on both sides of the Atlantic raised concerns that financial systems might be too brittle to withstand the policy measures needed to safeguard price stability.

We should recognise central banks' success. They faced the largest and most sustained rise in global inflation since the 1970s. They took forceful action.

And it worked.

Inflation declined with little collateral damage to growth, employment or financial stability. In no small measure, this was possible because central banks could draw on their hard-earned credibility and prevent a high-inflation mindset from creeping in. This greatly lowered the costs of disinflation.

While welcoming these positive developments, we should not be complacent. The job is not yet done. Inflation is far below its peak, but it is not low enough. Key relative prices remain out of step with their pre-pandemic trends. The risk to food and energy prices, and financial markets, from geopolitical tensions is ever-present. High-for-long interest rates could still be necessary, testing economic and financial system resiliency. And some risks lie beyond central banks' control. In many jurisdictions, unsustainable fiscal trajectories threaten macro-financial stability. Slow productivity growth could make the economic and political environment even more challenging.

Before I address the policy implications that follow from these challenges, let me first review in detail the key developments of the past year.

Growth proved more resilient than expected for several reasons.

First, labour markets were unusually buoyant. Given GDP outcomes, we would have expected unemployment rates to rise much more. The exceptional degree of labour market tightness was partly due to pandemic-induced behavioural shifts, not least the outsized rebound in the labour-intensive services sector.

Second, the transmission of monetary policy to the real economy proceeded smoothly. One reason was its measured impact on financial conditions. Overall, the financial system digested the interest rate hikes well – after the stresses in March 2023, any signs of strain remained localised and modest. While banks were cautious in granting credit, buoyant market sentiment kept risk spreads compressed.

At the same time, tighter financial conditions passed through smoothly into real activity. Fixed rate loans and longer loan maturities delayed the impact of higher rates on borrowers. Large cash cushions prevented sharp cutbacks in business investment. And savings accumulated during the pandemic continued to bolster household consumption.

However, the extent of economic resilience varied across countries. The US economy has displayed remarkable strength, in part supported by fiscal spending. In stark contrast to previous global monetary tightening episodes, emerging market economies generally outperformed, helped by stronger policy frameworks and robust domestic financial systems.

Elsewhere, growth was generally weaker. Many European economies still reeled from higher energy prices. Subdued global trade weighed on Asian economies that rely more heavily on manufacturing exports.

Inflation continued to retreat from its peak. Slower growth in core goods prices explains much of the decline, driven by benign supply chain conditions and a continued spending rotation towards services. Instead, services price growth took over as the main inflation driver. Concerningly, price growth in these items tends to persist. Thus, inflation remains above central bank targets across much of the world, although it is much more subdued in parts of East Asia, particularly in China.

* Speech by Mr Agustín Carstens, on the occasion of the Bank's Annual General Meeting, Basel, 30 June 2024.
* Agustín Carstens, General Manager of the BIS.

Monetary policy deserves much of the credit for lowering inflation. Higher interest rates curtailed demand. It is no coincidence that price growth fell most in sectors where prices are more sensitive to excess demand.

Given that policy tightening was broad-based across countries, it helped to restrain demand at a global scale, and hence to lower commodity prices.

Perhaps most crucially, forceful tightening reinforced central banks' credibility and pre-empted a shift to a high-inflation regime. Inflation expectations tell the story. Near-term inflation expectations fell back, retracing their upward drift during the inflation flare-up. Medium-term inflation expectations hardly budged, even as actual inflation approached double-digit levels.

More recently, monetary policy settings have begun to diverge. Some central banks have started to lower rates. Others have held steady. This is to be expected. The common supply and commodity price shocks that led almost all central banks to tighten policy have started to fade. This leaves country-specific idiosyncratic price movements as the main inflation driver. But even if central banks focus on domestic conditions, their decisions can still have global ramifications, particularly for exchange rate movements and capital flows.

Now, despite the notable progress made so far, it is too soon to declare victory. Several important pressure points remain, which could derail the smooth landing. These include persistent inflationary forces, macro-financial vulnerabilities, fiscal trajectories and low productivity growth.

Two relative prices are key for the inflation outlook. The pandemic disrupted the paths of both. One is the price of services relative to that of core goods, which remains well below its pre-pandemic trend. The other is the price of labour relative to that of goods and services – that is, real wages – which also lost ground during the unexpected inflation surge. An overly rapid reversion of either – or both – of these relative prices could create material inflationary pressures. It won't derail disinflation – central banks will make sure of that. But it would mean fewer and more gradual rate cuts or even, in the extreme, rate increases.

This, in turn, could have adverse macro-financial implications. With high debt and depleted savings cushions, household and firm balance sheets could buckle under the cumulative effect of monetary policy tightening. The commercial real estate sector faces structural and cyclical headwinds that could expose vulnerabilities in the broader financial system. The non-bank financial institution (NBFI) sector, notably private credit, is particularly susceptible to higher interest rates after expanding rapidly when rates were low. Added to this, stretched asset price valuations and the turning credit cycle could amplify any emerging financial stresses. We are still in the very early stages of this process. It typically takes more than a year from the turning of the financial cycle for loan problems to emerge, with repercussions for economic activity.

Fiscal outlooks are even more concerning. In the near and medium term, they pose the biggest threat to macroeconomic and financial stability. Fiscal support continues to affect demand and inflation dynamics in many countries. There is a risk that overly expansionary fiscal policy could add further fuel to inflationary pressures, undoing the hard-earned progress.

Without consolidation, public debt ratios are set to climb, even if interest rates remain below economic growth rates. With mounting spending needs, markets could at some point question fiscal sustainability. High public debt issuance could raise the risk of bond market dysfunction, threatening financial stability.

The resolution of supply chain disruptions and the recovery of labour supply have contributed significantly to the recent disinflation. This serves as a timely reminder of the importance of the supply side for inflationary dynamics.

But unwinding pandemic-related dislocations is a one-time gain.

Productivity growth is the key to strong, sustained supply side performance. After an extended period of low productivity growth in the lead-up to the Covid-19 pandemic, recent technological advances, including in artificial intelligence (AI), raise the prospect of a revival of high productivity growth in the years ahead. But there are no guarantees. Looking beyond AI, high productivity growth will occur only if the right institutional frameworks and policy measures are put in place. We urgently need to identify today's structural headwinds to productivity and address them head on.

In this regard, the increasing turn to protectionist measures in many jurisdictions is cause for great concern. Protectionism makes economies less dynamic, less innovative and less competitive. It makes them more inflation-prone in the short run, since they cannot tap into nimble overseas supply chains to cushion shifts in domestic aggregate demand. And it makes them poorer in the long run.

The question is then, what should policymakers do in this complex and challenging environment?

There is no doubt that the priority for monetary policy is to sustainably re-establish price stability. This requires holding firm in the last mile of disinflation. It means being alert to setbacks and standing ready to tighten once more if needed. It also means safeguarding the room for policy manoeuvre regained after a decade of low-for-long rates. Central banks should not rush to conclude that interest rates must return to pre-pandemic levels, given the uncertainty surrounding the level of neutral rates.

Monetary policy divergence, due to differences in inflation outlooks, could create short-term challenges related to capital flows and exchange rates. Thankfully, emerging markets are better equipped to deal with such challenges than in the past. Strong policy frameworks, underpinned by central bank independence, a broad set of policy tools, and ample foreign exchange reserve buffers provide robust lines of defence. Foreign exchange intervention can play a useful complementary role if used judiciously and not as a substitute for necessary macroeconomic adjustments.

Prudential policy must further strengthen the resilience of the financial system in preparation for credit losses ahead. Macroprudential policy must resist the temptation to ease prematurely. For microprudential policy, tight supervisory scrutiny remains essential to minimise the likelihood of near-term stress. And it is essential for full implementation of Basel III to proceed without delay.

As already mentioned, fiscal policy must consolidate. In the near term, this would help relieve inflationary pressure. It would also lower the risk of bond market disruptions and resulting financial stability repercussions. From the perspective of longer-term fiscal sustainability, the need to consolidate has never been greater. The end of low-for-long interest rates intensifies the urgency to put the fiscal house in order, and multi-pronged consolidation strategies should be considered.

While sound macroeconomic and prudential policies are foundational for an economy to realise its potential, structural policies are the key to lift living standards sustainably. A more resolute mindset and determination are now needed to reinvigorate the supply side of the economy.

But let me return to central bank matters. Taking a step back, we see that the pandemic and surge in inflation were part of a series of extraordinary events that have shaped monetary policy since the turn of the century. The economic outcomes and the conduct of monetary policy over this period point to several lessons for the future. Claudio will elaborate on this in his presentation, so let me just highlight a few of the key lessons.

To start with, monetary policy is a powerful tool. Recent events have confirmed once more that decisive monetary tightening can pre-empt a transition to a high-inflation regime. We have also seen how forceful action by central banks during stress episodes can stabilise the financial system and prevent disinflationary spirals. And the experience of emerging market economies has shown how the use of FX intervention and macroprudential measures can improve policy trade-offs.

But recent decades have also revealed monetary policy's limits. Exceptionally strong and prolonged monetary easing has diminishing returns. It cannot fine-tune inflation in a low-inflation regime, and it can generate unwelcome and persistent side effects. Meanwhile, the proliferation of monetary policy instruments, as well as unrealistic expectations about what they can deliver, has complicated communication.

These lessons highlight the importance of five features that could inform refinements to frameworks: robustness, realism in ambition, safety margins, nimbleness and coherence across policy domains. Together, they can reduce the risk that monetary policy, just like fiscal policy, is relied upon excessively to drive growth.

A different challenge for central banks stems from the rise of AI. As Hyun will explain later, the capabilities of the new generation of AI models will have a profound impact on the economy and financial markets. AI has implications for productivity, aggregate demand and financial stability. It could also transform the job of central banks, as the same tools that are being adopted by individuals and businesses are well-suited for monitoring the economy and financial system. Central banks need to stay ahead of developments to harness the full potential of AI. Data availability and data governance are key in this endeavour. Both will require investment in technology and in human capital. Above all, the challenges in the age of AI require close cooperation among central banks.

Let me conclude. It is no small feat that the economy seems poised for a smooth landing. It is reassuring that forceful, decisive policy actions by central banks have proven their effectiveness against a unique combination of powerful forces threatening price stability.

Policymakers must finish the job of reestablishing price stability and lay the foundation for durable accelerated economic growth. The presence of risks, including persistent inflationary forces, macro-financial vulnerabilities and real-side headwinds, requires vigilance and readiness for action.

Lessons from the turbulent period since before the Great Financial Crisis point to the power, but also the limits, of monetary policy. It is an effective tool to deliver low inflation and stabilise the financial system in times of crisis.

But it is not capable of steering already-low inflation to hit precise numerical targets. And it should not be relied upon as an engine of economic growth.

Looking ahead, central banks will need to grapple with the rise of AI – both in reacting to its effects on the economy and in using the new technology to fulfil their mandates. To do this, central banks need to come together to foster a "community of practice" to share knowledge, data, best practice and tools.

But let me also stress that laying the foundation for a brighter economic future will require actions from others as well, most notably fiscal authorities.

It is my conviction that as we tackle all the items on this agenda, we will be laying solid foundations for faster, more equitable and sustained economic growth.

Monetary Policy

Monetary Policy in an Unusual Cycle - the Risks, the Path and the Costs*

By CHRISTINE LAGARDE*

First of all, I would like to welcome you all to this year's ECB Forum.

The theme of the conference is "Monetary policy in an era of transformation", and we have a rich programme ahead of us, exploring the changes that are taking place.

But even if most of us can agree that the economy is undergoing substantial change, I imagine there are more diverging views about where it will end up.

This lack of clarity presents a profound challenge for policymakers, as we must try at once to understand these transformations and to steer the economy through them.

Indeed, much of the policy challenge over the last few years has involved stabilising inflation while facing fundamental uncertainty about the economy.

Nevertheless, we have managed to chart a path through this uncertainty, and we have come a long way in the fight against inflation.

In October 2022, inflation peaked at 10.6%. By September 2023, the last time we raised rates, it had fallen by more than half, to 5.2%. And then after nine months of holding rates steady, we saw inflation halve again to 2.6%, which led us to cut rates for the first time in June.

Our work is not done, and we need to remain vigilant. But this progress allows us to look back and reflect on the path we have taken.

This evening I would like to talk about three specific features that have defined this policy cycle: the risks, the path and the costs.1

The risks

Let me start with the risks.

In a typical policy cycle, when fluctuations are driven by moderate and short-lived shocks, inflation expectations are usually not at risk. Central banks' price stability mandates and reaction functions ensure confidence in the inflation target.

When faced with typical demand shocks, central banks reach their target by stabilising demand around potential output. And when faced with supply shocks, central banks can in principle "look through" them, as these shocks will usually leave no lasting imprint on inflation.

But this low risk to inflation expectations only applies when shocks are indeed moderate and short-lived. In situations where there is a risk of shocks becoming larger and more persistent, inflation expectations can de-anchor regardless of whether the shocks are demand-led or supply-led.

Central banks must then react forcefully to prevent above-target inflation becoming entrenched.

This was the lesson of the 1970s, when a sequence of supply shocks caused by rising oil prices ultimately morphed into a lasting inflationary shock. And with central banks at the time being seen as ambivalent about bringing down inflation, people revised their expectations about medium-term inflation.

Different studies reach different conclusions about the origin of the current inflation episode. ECB analysis finds that, at the peak, supply shocks were three times more important than demand shocks in

* Introductory speech by Ms Christine Lagarde, at the opening reception of the European Central Bank Forum on Central Banking "Monetary policy in an era of transformation", Sintra, 1 July 2024.

* Christine Lagarde, President of the European Central Bank.

explaining the deviation of inflation from its mean. Other research puts a greater emphasis on demand shocks.

But this delineation between supply and demand, while relevant, has not been the most important factor in our current cycle.

We needed to base our decisions not only on the source of the shocks, but also on their size and persistence. This was because the shocks were so large and persistent that we faced a genuine risk to inflation expectations.

Two features could have provided fertile ground for people to lose confidence in the monetary anchor.

First, the shocks were large enough to make many households switch their attention to inflation. At the start of 2023, over 60% of respondents in our consumer expectations survey reported that they were paying more attention to inflation than in the past.

Second, the inflationary impact of the shocks risked becoming endogenously persistent, owing mainly to the staggered wage bargaining process in the euro area. Although there is large variation across countries, the average duration of wage contracts is two years, effectively guaranteeing a drawn-out process to "catch up" with past inflation.

We did see some signs that the anchoring of inflation expectations was becoming more vulnerable, especially via a fattening of the "right tail" of the distribution. In October 2022, around four in ten consumers expected medium-term inflation to be at or above 5% and professional forecasters assigned a 30% probability of inflation being at or above 3% two years later.

So, monetary policy had to send a strong signal that permanent overshoots of the inflation target would not be tolerated. As a result, we strongly emphasised our determination to ensure a "timely" return to target. Our aim was to convey our commitment to ensuring that the period of high inflation would be limited and signal a sense of urgency.

The path

But how does monetary policy anchor inflation expectations? It is not only about the policy destination, but also about setting the right trajectory of rates to get there.

This brings me to the second specific feature of this cycle: the rate path.

It was clear from the outset that merely communicating our commitment to reaching our target would not have been enough. ECB analysis shows that, if we had not reacted at all, the risk of de-anchoring would have been above 30% in 2023 and 2024.

It is likely that even moderate policy action would have been insufficient. For example, if rates had stopped at 2%, the risk of de-anchoring would still have been around 24%.

So, when we first started raising rates, we knew that we were far from where we needed to be. The most important factor was therefore to close the gap as quickly as possible. This is why we had a historically steep climb at the start of our rate path, using increments of 75 and 50 basis points for our first six rate increases.

But as policy rates moved towards restrictive territory, the challenge shifted from acting quickly to calibrating the path precisely. In particular, we needed to set a rate path that both delivered a "timely" return to 2% and did so with a high degree of confidence.

This path also required us to take a different approach from the past.

Faced with multiple large shocks, there was significant uncertainty about how to interpret and rank the information we were receiving from the economy.

On the one hand, it would have been risky to rely too much on models trained on historical data, as those data may no longer have been valid. We could not know, for instance, whether shifts in preferences, higher energy prices and geopolitics had changed the structure of the economy.

On the other hand, relying too much on current data might have been equally misleading if they had turned out to have little predictive power for the medium term. As shocks worked their way through the economy, current data could also have reflected lags more than actual inflation trends.

So we constructed a framework to hedge against this uncertainty, blending projections with current data about underlying inflation and monetary transmission. The aim was to combine various pieces of information about the medium-term outlook into a single assessment that could be updated swiftly.

Our forecasts provided a comprehensive assessment of future inflation, assuming the underlying parameters of the economy remained stable. At the same time, looking at current data allowed us to identify the persistent components of inflation and account for structural changes that might have been missing from our forecast models.

In this reaction function, our assessment of the inflation outlook is informed by, but not limited to, our projections. We use various measures to gauge underlying inflation. And when assessing the strength of monetary policy, we consider banks, capital markets and the real economy.

As a result, while the flow of new information constantly adds to and improves our picture of medium-term inflation, we are not pushed around by any specific data point. Data dependence does not mean data point dependence.

This framework helped us navigate the "tightening" and "holding" phases of our policy cycle, and it gave us the confidence to deliver a first rate cut at our last policy meeting.

During these phases, we have seen the "right tail" of the distribution of inflation expectations narrow, consistent with a timely return of inflation to target.

The costs

But while our policy path has helped to tame inflation, it has also dampened economic growth. Interest rates rose steadily and remained high while the economy was stagnating for five straight quarters.

This pattern is unavoidable when central banks face shocks that push inflation and output in opposing directions. But this time, the costs of disinflation have been contained compared with similar episodes in the past.

This brings me to the third specific feature of this cycle.

Given the magnitude of the shock to inflation, a "soft landing" is still not guaranteed. If we look at historical rate cycles since 1970, we can see that when major central banks hiked interest rates while energy prices were high, the costs for the economy were usually quite steep.

Only around 15% of the successful soft landings in this period – defined as avoiding either a recession or a major deterioration of employment – have been achieved following energy price shocks.

But this cycle has so far not followed past patterns.

Inflation peaked at a much higher point than during previous soft landings, but it also decelerated faster. Growth has remained within the range of previous soft landing episodes, albeit near the bottom of that range. And the performance of the labour market has been exceptionally benign.

Employment has grown despite slowing GDP growth, rising by 2.6 million people since the end of 2022. And unemployment is at historical lows for the euro area, and well within the range observed during previous soft landings across major economies.

The resilience of the labour market is itself a reflection of the unusual mix of shocks that have hit the euro area, with labour shortages leading firms to hoard more labour, and higher profits and lower real wages making it easier for them to do so.

As a result, the usual propagation from slower growth to heightened unemployment risks and lower demand did not happen to the same extent.

Now, we are still facing several uncertainties regarding future inflation, especially in terms of how the nexus of profits, wages and productivity will evolve and whether the economy will be hit by new supply-side shocks. And it will take time for us to gather sufficient data to be certain that the risks of above-target inflation have passed.

The strong labour market means that we can take time to gather new information, but we also need to be mindful of the fact that the growth outlook remains uncertain. All of this underpins our determination to be data dependent and to take our policy decisions meeting by meeting.

Conclusion

Let me conclude.

Our policy decisions have successfully kept inflation expectations anchored, and inflation is projected to return to 2% in the latter part of next year. Considering the size of the inflation shock, this unwinding is remarkable in many ways.

Even though millions of businesses and workers have been independently striving to protect their profits and incomes, our 2% inflation target has remained credible and has continued to anchor the inflation process.

This speaks to the value of the policy frameworks that central banks have built up over the last 30 years, focusing on price stability and central bank independence. And it is why we will not waver from our commitment to bring inflation back down to our target for the benefit of all Europeans.

As the late footballer and manager Sir Bobby Robson said, "the first 90 minutes are the most important". Similarly, we will not rest until the match is won and inflation is back at 2%.

IMI International Monetary Review

Getting Closer*

By CHRISTOPHER J. WALLER*

So far, 2024 has been a challenging year for economic forecasters, and for monetary policymakers. After significant progress in 2023 toward the Federal Open Market Committee's (FOMC) price-stability goal, inflation jumped in the first quarter. At the same time, both the labor market and economic growth ran strong enough that some commentators wondered whether monetary policy was restrictive enough and whether rate hikes should be back on the table. These twists and turns in the economic data shifted everyone's expectations back and forth as to when the FOMC might begin lowering its policy interest rate and how many cuts there would be this year. During this time, my consistent view was that there was no urgency to cut rates until the Committee is confident that inflation is returning sustainably to 2 percent.

Then, in the second quarter, data on inflation and the labor market moderated in a way that suggests progress toward price stability has resumed. The data over the past couple months shows the economy growing at a more moderate pace, labor supply and demand apparently in balance, and inflation slowing from earlier this year. These are all developments that support progress toward achieving the FOMC's dual-mandate goals. For reasons that I will elaborate on later, I believe current data are consistent with achieving a soft landing, and I will be looking for data over the next couple months to buttress this view. So, while I don't believe we have reached our final destination, I do believe we are getting closer to the time when a cut in the policy rate is warranted.

Before turning to the economic outlook, let me say a word about central bank communication—in particular, communication about the policy path. Central bankers use communications to try, as much as possible, to describe the extent of progress, and even more importantly, the remaining path to the ultimate destination. The problem is that there may not be just one path to the ultimate destination—it depends on the incoming data. For example, when leaving work, you have a normal route to get home, and that is the base case for your estimated commuting time. But that day's traffic conditions will dictate whether you should take that route or an alternative to get home. You need to think about the alternative routes to get home and how long they will take if you are confronted with unexpected congestion. And, most likely, you will also have to communicate these alternative travel plans to family members so they have an idea of when you will arrive and how you will get the kids to after school activities.

Central bankers face the same problem: How will you set policy if the data come in different than you expected? It is important to not only lay out your base case, but also alternative paths for policy if your base case is disrupted by incoming data. And for monetary policy, it is even more important to communicate those alternative policy paths to the public so that they can also make plans. So, after reviewing the economic outlook, I will explore three possible data scenarios about inflation for the second half of 2024 and how those differing scenarios affect my view of the appropriate stance of policy.

Economic Activity

Let me start with the economic outlook. Real gross domestic product (GDP) grew at about a 4 percent annual pace in the second half of 2023 and then significantly slowed to a 1.4 percent rate in the first quarter. Recent forecasts indicate that output grew a little faster in the second quarter. We will get an initial estimate of second-quarter GDP next week, but the Blue Chip average of private-sector forecasts estimates that GDP grew at a 1.8 percent pace in the second quarter, and the Atlanta Fed's GDPNow model estimates growth at 2.5 percent. A big reason for the higher GDPNow estimate is because it was updated after yesterday's retail sales report. Digging into that report, one finds that the data directly informing the Bureau of Economic Analysis's estimate of consumer spending posted solid gains for June and revised up sales for both April and May. I suspect that this moderate consumption growth may continue in the second half of the year because personal income data is holding up.

A signal of possible slowing in economic activity comes from the Institute for Supply Management's (ISM) survey of purchasing managers for non-manufacturing firms. Nonmanufacturing firms constitute the large majority of businesses in the economy. The non-manufacturing index fell below 50 in June,

* The speech first appeared At the Federal Reserve Bank of Kansas City, Kansas City, Missouri.
* Christopher J. Waller is a governor of the Federal Reserve Bank.

suggesting a contraction in activity. As a part of that survey, 'business activity,' corresponding to production or sales, fell below 50 for the first time since May 2020. The index for new orders fell especially sharply and the employment index fell further into contractionary territory. Clearly, economic activity among these businesses is slowing, but it is too soon to say by how much. Previous months when the overall index fell below 50 were followed by sustained periods above that threshold, so we will have to wait and see what this current reading means for a slowing in this sector. Meanwhile activity among manufacturing businesses has been fairly steady this year after contracting from late 2022 through 2023. New orders and most other readings are close to 50.

The Labor Market

One development in the past few months with significant implications for monetary policy is that labor supply and demand have finally come into rough balance. Demand of workers exceeded supply for several years, contributing significantly to high wage inflation, which inevitably fed through into services inflation. Supply was damaged after the pandemic, as many people left the workforce to care for family, older workers retired, and immigration fell significantly. At the same time, the economy grew solidly, and labor demand rose at a brisk pace. The imbalance in the labor market was reflected in a surge in job openings, with two vacant jobs for each worker counted as looking for work, nearly double the rate prior to the pandemic. There was also a surge in the number of people quitting their jobs, most of them to take a higher-paying job elsewhere.

But now that situation has changed dramatically. Labor supply has improved, with a higher labor force participation rate and much higher rates of immigration. Not long ago, I would have been concerned that the high levels of job creation reported recently were inconsistent with a labor market coming into better balance, but the high pace of immigration in recent quarters helped accommodate the strong demand. And, more recently, as restrictive monetary policy has put downward pressure on aggregate demand, the demand for labor has moderated.

The unemployment rate has risen from a 50-year low to 4.1 percent, still low in historical terms but the highest since late 2021. In May, the ratio of job vacancies to unemployed people stood at 1.2, which was the average in the year before the pandemic. The share of workers who quit their jobs is now slightly below the pre-pandemic level. One indication that this is a loosening, rather than a weakening, of the labor market is that layoff rates have been more or less steady at the low rate of around 1 percent. To me, this is all evidence of labor supply and demand in balance.

Back in 2022, I wrote a research note with Fed economist Andrew Figura on the Beveridge curve, which is the relationship between unemployment and the job vacancy rate.2 In that research, we projected that, if layoffs were steady, the unemployment rate would rise to around 4.5 percent if the job vacancy rate dropped back to its pre-pandemic level of 4.6 percent. The latest data estimated the vacancy rate in May as 4.9 percent, pretty close to the pre-pandemic level. There were some prominent skeptics, but this data tells us that if inflation continues to moderate as it has since May, then we may achieve the soft landing in the labor market that I said back then was possible, with even less of a tradeoff in terms of unemployment.

Another sign of balance in the labor market is that wage growth has continued to slow. The twelve-month change in average hourly earnings has slowed from its peak of about 6 percent in March 2022, to 4.3 percent by December 2023, and is down to 3.9 percent as of June. The three-month increase through June was running at an annual pace of 3.6 percent, which is close to what I judge is the rate needed to support inflation running at 2 percent in a sustained way. And this interpretation is consistent with other measures that suggest wage growth is back to its pre-pandemic level.

So what lies ahead for the labor market? Right now, the labor market is in a sweet spot—employment growth is not excessive when accounting for immigration, nominal wage growth is near the rate consistent with price stability, the unemployment rate is close to what is thought of as its long run value, the job vacancy rate is near its pre-pandemic level and the involuntary layoff rate has held steady at 1 percent for over 2 years. In terms of the employment leg of the dual mandate, we may well be able to achieve the soft landing.

But we need to keep the labor market in this sweet spot. As my research note highlighted, the history of the Beveridge curve indicates that, given the normalization of the labor market, a continued decline in the job vacancy rate and the vacancy-to-unemployment ratio may lead to a larger increase in unemployment than we have seen the past two years. In short, one implication of a balanced labor market is that the risk of it becoming too loose is more closely balanced with the risk of it being too tight. This is a policy challenge that we have not faced for the past couple years. As of today, I see there is more upside risk to unemployment than we have seen for a long time.

Inflation

Let me now turn to the outlook for inflation. After making progress last year toward our 2 percent goal, early this year I was concerned that progress might have stalled. But data in recent months has been reassuring. Last week's consumer price index (CPI) report was the second month of very good news. It showed that total consumer prices fell in June, after staying flat in May. This means that CPI inflation for the 12-months through June declined to 3 percent, while the 3-month annualized change dropped to 1.1 percent. For consumers who have been dealing with prices that are still significantly higher than before the pandemic, this is good news, and with continuing solid gains in wages and other income, over time I hope it will begin to feel like the level of prices is becoming more manageable.

For policymakers, this was also welcome news. Factoring out energy and food prices, which tend to be volatile, core CPI inflation rose only 0.1 percent last month, the slowest pace since the pandemic. This brings 3-month annualized core inflation down to an annual rate of 2.1 percent. Based on the consumer and producer price data reported last week, private sector forecasters are predicting that the FOMC's preferred inflation gauge based on personal consumer expenditures (PCE) rose 0.1 percent in June and that core PCE inflation rose 0.2 percent.

So, after disappointing data to begin 2024, we now have a couple of months of data that I view as being more consistent with the steady progress we saw last year in reducing inflation, and also consistent with the FOMC's price stability goal. The evidence is mounting that the first quarter inflation data may have been an aberration and that the effects of tighter monetary policy have corralled high inflation. To see this, consider the average monthly rate of core PCE inflation over the past 18 months. In the first quarter of 2023 it averaged 0.4 percent, and then 0.3 percent, 0.2 percent and 0.1 percent over the remaining quarters of the year. Core PCE inflation jumped to a monthly average of 0.4 percent in the first quarter of this year but is now estimated to be back to 0.2 percent last quarter. Most importantly, I don't have to look at the second decimal place to see progress! The recent data are making me more confident we will achieve the inflation goal of our dual mandate.

Monetary Policy

Now let me turn to the implications of this data for monetary policy. As I noted earlier, the changes in the data this year have made it hard to formulate an outlook for policy that would apply to the range of possible paths the economy may take. That range of possibilities must consider two risks.

On the one hand, it is essential that monetary policy get inflation down to a sustained level of 2 percent. If we start to loosen policy too soon, and allow inflation to flare up again, we risk losing credibility with the public and allowing expectations of future inflation to become unanchored. That credibility has helped inflation fall as quickly as it has in the past 18 months and squandering it would be a grave mistake. Monthly PCE inflation has very recently been running near 2 percent at an annual rate, but I need to see a bit more evidence that this will be sustained. The other risk is that we wait too long to ease monetary policy and contribute to a significant economic slowdown or a recession, with unemployment rising notably.

With those two risks in mind, let me lay out three scenarios for the economy this year that would result in leading me to different views about appropriate policy. One assumption I make is that there is no significant deterioration in the labor market in the next several months—that we are able to keep the labor market in its current sweet spot. While I believe this is likely, I will be paying close attention to the employment side of our mandate.

The first scenario is the optimistic one. Here we continue to receive more very favorable CPI inflation reports, with implications for very favorable PCE inflation readings as well. This would give us a nice run of inflation data starting in May. I see a significant but not high probability of this scenario occurring. And, in that circumstance, I would have much greater confidence in inflation moving sustainably toward 2 percent. In this scenario, I could envision a rate cut in the not-too-distant future.

The second scenario is a bit less optimistic but probably more likely to occur. In this case, the inflation data comes in uneven—not as good as the previous few months but still consistent overall with progress on bringing inflation down toward 2 percent. Here, with the uneven data, it would be a matter of timing as to when I thought we are making sustainable progress to 2 percent inflation. In this case, a rate cut in the near future is more uncertain.

The final scenario is the one that I certainly don't want to see but have to worry about. In this case, if we were to see a significant resurgence in inflation in the second half of 2024, it would be tough to conclude we were making sustainable progress on inflation this year. While this pessimistic outcome is possible, I put a low probability on it happening given the recent data we have received.

These scenarios highlight that the data will influence how my confidence in inflation returning sustainably to 2 percent could evolve over time. And this will then influence my view of the appropriate path of policy. This all goes to say that my view of the appropriate path of policy is data dependent.

In laying out these scenarios, I don't mean to suggest that I will ignore other data and what they tell us about economic and financial conditions. As always, my judgments about appropriate policy will consider the totality of the data, including importantly the signals we receive about the state of the labor market, which has eased and now looks to be in balance. But for the purpose of clearly communicating my thinking about the stance of policy over the next several months, I think these scenarios are helpful. And given that I believe the first two scenarios have the highest probability of occurring, I believe the time to lower the policy rate is drawing closer.

IMI International Monetary Review

Regulation and Macro-Prudential Policy

An Integrated Approach to a Safer and More Resilient Banking System⋆

By AGUSTÍN CARSTENS[*]

The banking turmoil in Switzerland and the United States in March 2023 highlighted the importance of sound bank governance and risk management, strong bank supervision and regulation, appropriate mechanisms for liquidity provision by central banks, effective deposit insurance and adequate resolution regimes.

I want to emphasise today that we should not think about these dimensions in isolation, but in a holistic and integrated manner. In doing so, I will focus on liquidity risk, but not limit myself to it. Liquidity risk is inherent to banking because of the maturity and liquidity transformation banks conduct.

While liquidity problems can occur for many reasons, more often than not they reflect fundamental concerns about solvency and business models. This became evident during the March 2023 banking turmoil.

One of the key triggers of the failure of Credit Suisse and Silicon Valley Bank (SVB) was the market's surprise realisation that they needed to raise substantial amounts of additional capital but could not do so. The need, and inability, to raise capital reflected the underlying problems in these banks. In the case of Credit Suisse, poor management and governance over many years led to a growing perception among investors that its business model was unsustainable. Large withdrawals by wealth management customers in late 2022 were both a signal and a consequence of a weak business model. This was followed in March 2023 by the bank being cut off in funding from wholesale and derivatives markets. In the case of SVB, unhedged exposure to rising interest rates led to large losses that threatened its solvency, while the bank did not hold large liquidity buffers. These shortcomings reflect the fact that SVB had weak risk management and inadequate governance. Rapid deposit withdrawals ensued.

So, doubts about bank fundamentals often manifest themselves as liquidity problems. Of course, even sound financial institutions may face liquidity shortfalls if certain markets cease to function properly.

Improved approaches to prevent or manage liquidity distress would make the failures of banks – and other financial institutions – less likely. They can also help prevent contagion across markets. They can further reduce the cost of failures, for example, by facilitating the provision of central bank liquidity support for solvent banks or the orderly unwinding, sale or resolution of insolvent ones.

The starting point should be banks' own governance and risk management practices. But history tells us that, while this is necessary, it is not sufficient.

Therefore, prudential supervision and regulation remain key. During the Swiss and US episodes, for example, bank supervisors were not able, for various reasons, to take forceful and prompt supervisory enforcement actions when these banks exhibited clear weaknesses in governance and risk management. As I have argued previously, supervision needs to be strengthened to ensure that it can identify banks' weaknesses at an early stage and act forcefully to ensure that banks address them. To do this, supervisors will need to have operational independence, to strengthen their forward-looking culture and to continuously seek to improve their capabilities by allocating more resources to develop expertise and leverage on innovative technology. At the global level, is urgent to invest more resources in banking supervision.

⋆ Keynote address by Mr Agustín Carstens at the Central Reserve Bank of Peru, Reinventing Bretton Woods Committee and Inter-American Development Bank 15th Annual Conference: "The rewiring of the global economy", Cusco, 19 July 2024.

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In terms of prudential regulation, the implementation of Basel III reforms is delivering a clear enhancement in banks' resilience in terms of both solvency and liquidity. To be sure, Basel III is not designed to prevent all bank failures, nor is it applied to all banks. For example, SVB was not subject to the Liquidity Coverage Ratio (LCR) regulation introduced by Basel III, and unrealised losses on that bank's available for sale securities (AFS) were not deducted from regulatory capital as prescribed by the Basel standards. Nevertheless, by raising the overall levels of capital and liquidity in the banking system, the Basel Framework enhances banks' resilience, supports confidence and limits contagion. Therefore, it is important for Basel III implementation to be completed in all major jurisdictions.

In addition to better regulation and supervision, the lender of last resort function of central banks can also be improved. While it is appropriate and important that central banks can perform the lender of last resort function, it is neither cost-free nor risk-free – for central banks, for the financial system or for society at large. Excessive reliance on it undermines market discipline, contributing to a build-up of vulnerabilities. And it exposes central banks, and hence taxpayers, to potentially large liabilities.

Finally, the reach of deposit insurance is another important element of the framework. A large share of uninsured deposits was an important driver of the large-scale and rapid deposit withdrawals from the failed US banks. After the collapse of SVB and Signature Bank, all depositors were protected under a systemic risk exception. As those banks were subject to lighter regulatory requirements than those applied to larger banks, the systemic risk exception was used to deal with the failure of banks that had not been deemed systemic in life. In the light of this, there seems to be merit in discussing the circumstances under which these banks become systemic and how we can ensure that they are subject to sufficiently stringent supervisory and regulatory requirements when they are alive.

All this points to the need for a holistic and integrated approach to containing liquidity risk. The various measures to address liquidity risk I mentioned previously all have their costs and limitations. So we should not rely on any single one alone. Instead, we need to understand their interplay and design a proper mix, while recognising that the best combination of approaches will probably depend on specific characteristics of each jurisdiction.

Let me now move on to how we can improve on the current toolkit for the management of liquidity risks and the provision of liquidity in times of stress.

One question that tends to be raised is whether adjustments to liquidity regulations are called for. In the light of the events of March 2023, a review of the LCR and Net Stable Funding Ratio (NSFR) requirements has some merit. But this should be secondary to the need to implement all aspects of Basel III in full and consistently, and as soon as possible. That said, I am pleased to see that the Basel Committee will explore policy options related to liquidity risk over the medium term. Beyond that, there is scope for considering how to improve the usability of liquidity buffers. But we need to be realistic about what we can hope to achieve here. We cannot expect banks to maintain buffers large enough to weather all extreme liquidity withdrawal scenarios.

Another important aspect regarding the design of prudential liquidity regulation relates to the accounting treatment of instruments considered as high-quality liquid assets (HQLA) – particularly whether the classification of instruments as held to maturity may affect banks' ability or willingness to monetise them if needed. In the case of SVB, its securities recorded as held to maturity for accounting purposes did not need to be marked to market, even if they were considered part of a liquidity buffer. But when those bonds were to be sold to help meet outflows, the bank needed to recognise losses. This sudden loss recognition completely destabilised the bank, as it pushed it into a situation of capital insufficiency in the worst possible scenario, ie when liquidity needs were exacerbated. Clearly these situations need to be avoided.

Beyond liquidity regulation, I would like to highlight the interplay of four measures: liquidity provision through central bank facilities, business governance, internal liquidity risk management and supervision. I am focusing on these four measures given the weaknesses in them that surfaced in March 2023. A key goal is to increase ex ante resilience, rather than just ex post liquidity assistance in case of stress.

Let me start with the recent proposals to ensure that banks can access central bank liquidity in crisis times through the pre-positioning of collateral. Broadly speaking, there seem to be two proposals on the pre-positioning of collateral. One is to pre-position against all runnable liabilities, including all deposits and short-term debt – called the "pawnbroker for all seasons" by Mervyn King and Paul Tucker. The other one is to pre-position against all runnable liabilities other than insured deposits, as recently proposed by the Group of Thirty.

There are several arguments in favour of these proposals. They could ensure that institutions can seamlessly access central bank liquidity when needed, at less financial risk to the central bank than with current arrangements. The availability of access to central bank liquidity can boost confidence and reduce the risk of runs, making it less likely that the facilities will be needed. Pre-positioning requirements may also help steer banks away from excessive risk-taking. Indeed, pre-positioning is already in place in some jurisdictions, although not linked directly to runnable liabilities.

But pre-positioning of collateral also has drawbacks. Most notably, when it becomes compulsory in relation to runnable liabilities, the market may expect banks to maintain the minimum amount of collateral at all times and even more during stress periods. As a result, the pre-positioned collateral may become less usable. Moreover, calibrating haircuts is difficult, especially under systemic liquidity stress. In addition, the central bank's collateral pre-positioning policy may induce banks to change their asset profile and thus influence credit allocation, which is something central banks generally try to avoid.

In weighing up the costs and benefits of pre-positioning, we should not view it in isolation. Instead, we should consider it in the context of bank governance practices. In principle, pre-positioning requirements could form part of the toolkit to address weaknesses in bank governance. For example, banks that fall short in some aspects of governance or liquidity management practices could be subject to more stringent pre-positioning requirements. This would create an incentive for financial institutions to adopt measures to lower their pre-positioning requirements by reducing the overall liquidity risk profile or runnability of their liabilities. By considering the interplay between several measures to lower liquidity risk – central bank liquidity facilities, supervision and internal risk management – we could make it less likely that banks will need to call upon such assistance from the central bank, thereby strengthening ex ante resilience.

Another way to help ensure that banks have usable collateral available in times of stress is to ensure banks' preparedness to tap central bank liquidity facilities. The events of March 2023 illustrated the importance of such preparedness. For example, SVB had not tested its ability to borrow from the discount window and lacked adequate collateral and operational frameworks. In this case, enhanced supervision could help bolster the effectiveness of central bank liquidity facilities. In particular, supervisors and central banks could regularly engage in detailed liquidity stress scenario discussions with banks, as is done in some jurisdictions. Such preparedness exercises would require banks to document the types of assets available for pre-positioning, complete the necessary legal preparations, and demonstrate their operational readiness to use central bank liquidity against collateral. As a further benefit, these measures would also help improve banks' governance, particularly their internal control and risk assessment mechanisms.

As these two examples show, in thinking about how to strengthen the management of liquidity risks we should not consider alternative measures in isolation. In particular, we should look to combine stronger supervision and greater emphasis on internal governance and liquidity management, with an improved system of central bank liquidity provision.

Let me say just a few words on non-bank financial intermediaries (NBFIs). Basel III only applies to banks. In the case of NBFIs, regulatory progress has been wanting. The interconnections between banks and NBFIs have increased over time. For example, rapidly growing private credit funds have liquidity lines with banks. Therefore, when NBFIs face liquidity problems, they will draw down the liquidity lines from banks, which can put pressure on banks. Furthermore, over the past five years severe disruptions in government bond markets in major advanced economies highlighted the role of various types of NBFI in propagating funding and market liquidity shocks across the financial system. Therefore, work by international standard setters to bolster NBFIs' resilience by limiting liquidity mismatches and leverage needs to be pursued with vigor.

Let me conclude.

Enhancements of the regulatory and supervisory frameworks under Basel III have brought about safer and more resilient banking systems globally. Nonetheless, the banking turmoil in March 2023 and the call on central banks to step in to provide emergency liquidity assistance show us that there is scope for improvement.

The priority is to fully implement Basel III. Beyond that, it is time to think about how we can enhance liquidity risk management, governance and central bank liquidity provision. In doing so, we need to take a holistic approach.

Pre-positioning of collateral can be an important element in this effort, but modalities matter and potential adverse effects need to be avoided.

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Reserve Management

Five Emerging Trends in Reserve Management this Year

By TAYLOR PEARCE*

OMFIF's Global Public Investor reports have been tracking the investment and asset allocation decisions of central banks around the world for over a decade. Our survey of central bank reserve managers, now in its sixth year, explores the macro factors influencing investment, asset and currency allocation decisions and sustainable investment and practices of central bank reserve managers.

This year's report – which surveyed 73 central banks with international reserve assets totalling $5.4tn – was a litmus test of whether we have returned to normal following several years of global crises, or whether we have entered a new normal. We posed the question: stick or twist? In doing so, we sought to explore whether reserve managers would stick with traditional fixed income assets or twist and diversify into new asset classes.

We found that reserve managers believe we are facing a more volatile and fragmented macroenvironment, and this is influencing their asset and currency allocation decisions.

Reevaluating renminbi exposure

Motivated by the need to diversify currency holdings and improve risk-adjusted returns, central banks have been investing in renminbi for the past several years. According to the GPI survey, 30% of respondents indicated an intention to increase renminbi holdings over a two-year period in 2021 and 2022, which fell to 10% in 2023 but remained higher than for any other currency. But for 2024, a mix of cyclical and structural factors have stalled the Chinese currency's growth as a reserve currency.

Prior to the interest rate hiking cycles in the US and Europe, the renminbi was seen as a good diversification option due to the yield spread between renminbi-denominated government bonds and USD- and EUR-denominated bonds. Yet, comparatively low growth and a lacklustre outlook for the Chinese economy alongside higher interest rates in developed economies have made the renminbi less attractive.

In addition, geopolitics was listed by around 70% of survey respondents as a discouraging factor for investing in Chinese financial assets. At a recent OMFIF discussion, one reserve manager stated that, 'In 2022, we were one of the first central banks to sell 75-80% of our renminbi holdings, because of the perceived geopolitical tensions and China not being clear on their Ukraine position. Now many [central banks] are doing the same.' Another reserve manager noted that their institution had gone even further to reduce renminbi exposure: 'We saw gains [from renminbi holdings], but geopolitical risk factors were part of the decision to reduce holdings to 0%.'

Higher-for-longer rates making fixed income more attractive

Central banks expect structurally higher rates compared to pre-pandemic levels, with 78% of survey respondents anticipating the trend. At the GPI 2024 launch, Ricardo Martinelli, senior adviser on foreign reserves at Banco Central do Brasil, noted that 'longer-term inflation will be higher than the past 10 years due to demographics, defense spending, the energy transition and deglobalisation.' These factors are influencing central banks' investment strategies and asset allocation decisions. 'We are in a higher interest rate environment… which means for some central banks, having more liquidity can be more important.'

As highly liquid assets which are now non-zero yielding, it follows that fixed income is back for reserve managers looking to balance yield and liquidity. 'In the area of fixed income assets, there are plenty of opportunities now,' explained Antonela Peci, head of investment strategy and credit risk at the Bank of Albania. 'Diversification in the current environment – with volatility and geopolitical risk – doesn't give the result that has been evaluated in normal conditions. Central banks will be prudent in diversifying.'

* Taylor Pearce is Lead Economist, Economic and Monetary Policy Institute at OMFIF.

Preparing for future diversification

Looking ahead to diversification strategies beyond fixed income, risk appetite remained low among respondents in this year's GPI survey. Just 9% of respondents intend to increase equity holdings over the next two years, 3% for asset-backed securities and 5% for real estate. But discussions with reserve managers suggest that over a longer time horizon, diversifying into non-traditional asset classes and even alternatives may be the way forward.

'If you are moving into a space where inflation is becoming more and more important [as an investment consideration], alternative markets like infrastructure and real estate offer a good hedge,' reflected Martinelli, who anticipates that central banks will continue to move toward alternatives over the coming years.

There are still some limitations to how central banks can invest in nontraditional asset classes, given their mandate for market neutrality. 'We do not invest in single names, we're not comfortable buying specific companies; for equities and also for corporate bonds, we use ETFs to have exposure,' explained Martinelli. Passive funds like exchange-traded funds may be becoming more mainstream investment vehicles for central banks, a trend also evident in the GPI 2024 survey.

Discernment increasingly important in emerging markets

As central banks seek diversification opportunities, some are looking to invest in emerging markets. Due to high interest rates on government bonds in advanced markets and foreign exchange risk heightened by a strong dollar, the risk premium on EM debt is less attractive than in previous years. But US interest rates will come down over the medium term, offering higher yields in EMs poised for higher growth.

As a result of deglobalisation or the 'regionalisation' of trade dynamics, there is increasing importance in analysing country-specific fundamentals and identifying investment opportunities in emerging markets. There will be investment opportunities, especially 'if you understand which countries are benefitting from this new redistribution of factories and commodities,' explained Zongyuan Zoe Liu, Maurice R. Greenberg Fellow for China Studies at the Council on Foreign Relations at the GPI launch.

Investing in green bonds, albeit passively

Central banks are also slowly working to green their portfolios. GPI data demonstrate that the share of survey respondents investing in sustainable assets – such as green and other labelled bonds –has increased from under 50% in 2021 to 67% this year. But it appears that most reserve managers are passively investing in labelled bonds, as they have become a natural part of the traditional sovereign, supranational and agency bond market and because they meet other investment criteria.

This passive strategy was echoed by Peci, who stated at the launch that, 'We currently buy sustainable bonds, but we don't have a green mandate'. Integrating sustainability as a fourth objective in the Bank of Albania's mandate is an ongoing process. Other central banks will likely follow suit.

Call for Papers

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