LIVERPOOL INVESTMENT LETTER

January 2024



Julian Hodge Institute of Applied Macroeconomics



LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

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The Julian Hodge Institute was launched in autumn 1999 in a new collaboration between the Cardiff Business School of Cardiff University and Hodge. The aim of the Institute is to carry out research into the behaviour of the UK economy, and to study in particular its relationship with the other economies of Europe. The research has been particularly germane in recent years and has proved to be of significant social and political relevance as Europe has navigated the difficulties of the global financial crash, the Eurozone crisis and most recently the UK referendum on EU membership. The Liverpool Investment Letter is written by Patrick Minford, with the assistance of other members of the Group; in particular the emerging markets section is written by Anupam Rastogi, and the focus on Japan is written by Francesco Perugini. The Investment Letter is published monthly.

The Liverpool Research Group in Economics is pursuing a research programme involving the estimation and use of macroeconomic models for forecasting and policy analysis. The Group is now mainly based in Cardiff Business School, Cardiff University, and is indebted to the School and to the Hodge Foundation for their support. The Group's activities contribute to the programmes being pursued by the Julian Hodge Institute of Applied Macroeconomics. This Liverpool Investment Letter is typeset by David Meenagh and published on behalf of the group by Liverpool Macroeconomic Research Limited, which holds the copyright

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Inflation, Monetary Policy and Forecasting Central banks have been criticised for big inflation forecasting errors, with their models being blamed. But these models are meant for causal analysis and gauging good policy rules; they are not good at forecasting because the shocks hitting them are unpredictable and volatile. Instead, central banks should use relationships between past and current events churned out by history; the best is between inflation and past money supply growth, as can be seen from events during and after Covid. If central banks had paid attention to this relationship, they would have made quite good inflation forecasts.	3
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INFLATION, MONETARY POLICY AND FORECASTING

The columns of the financial press are full of central bank failures to forecast inflation and the need for them therefore to 'change their models' of the economy. But this reveals great confusion about the roles of models and forecasts. Models of the economy that try to mirror the causal nexus connecting people's decisions with economic shocks and policy responses are not good vehicles for forecasting; their aim is to understand the effects of policy on the economy so as to craft better policy rules. They only forecast well as far ahead as shocks can be foreseen, which is not very far. By contrast we have a variety of relationships between current and past events which can be projected forward to give reasonable forecasts from the events that have already occurred — call them 'event relationships'. Examples of these are 'price pipeline' relations between input and output prices, where we can use past commodity price changes to forecast future retail price changes as they work downstream. Another example is the relation between money supply growth and later inflation; the linkage here relies on the underlying equilibrium in which money and credit growth is linked to spending growth, while the supply of goods grows only slowly over time; price increases create equilibrium between supply and demand. So, once we have observed the money supply growth we can be fairly sure that the inflation will follow. For some reason central banks have ignored this relation which could have helped them forecast better over the past three years.

Many commentators have compared these central bank forecasts unfavourably with weather forecasting, which has become increasingly accurate. But weather forecasts sensibly rely on exploiting event relationships between past and current weather events by deploying huge computers filled with information about the recent past from all over the world. For them the equivalent models of causal nexus would consist of the applied physics of weather systems; using these for forecasting would be difficult because the shocks to these systems are large and volatile, quite like those to the economy. The moral of their success for economists is their use of event relationships between current and past data to project future events from known recent past ones. Good forecasters use these techniques,

Table 1: Summary of Forecast

	2019	2020	2021	2022	2023	2024	2025
GDP Growth ¹	1.6	-10.4	8.7	4.3	0.6	0.9	1.9
Inflation CPI	1.7	0.9	2.5	9.1	7.5	3.5	2.0
Wage Growth	3.5	1.6	5.9	6.0	7.2	4.2	3.4
Survey Unemployment	3.8	4.5	4.5	3.7	4.1	3.0	2.9
Exchange Rate ²	78.3	78.2	81.4	79.1	80.4	79.7	79.4
3 Month Interest Rate	0.8	0.2	0.1	2.0	5.0	4.3	3.0
5 Year Interest Rate	0.6	0.1	0.8	2.5	4.1	4.2	3.0
Current Balance (£bn)	-63.3	-60.3	-10.8	-77.3	-42.7	-14.7	1.5
PSBR (£bn)	64.3	312.9	121.5	130.5	112.2	42.3	29.9

¹Expenditure estimate at factor cost

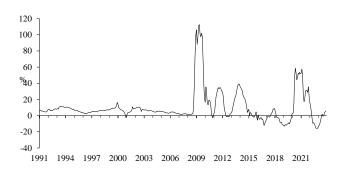
regardless of what their theoretical models may tell them, because these need too much unavailable information to use reliably for projection.

As far as recent inflation is concerned, the huge swings in 'broad' money supply growth (this is the counterpart of general credit growth) during and after Covid have given us excellent forecast material. One has only to glance at the swings in the US, the UK and the Eurozone — all shown below — to see this at work. Inflation took off in all three about a year and a half later. As for the sharp decline in inflation, similarly money supply growth has dived sharply since the tightenings of 2022, and inflation has dived sharply after it.

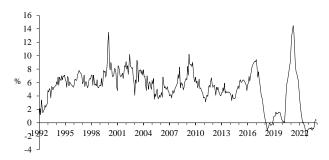
It seems that central banks tried to use their causal models in which interest rates affect people's decisions directly, to forecast how the economy would develop and, with it, inflation. But these models are complex and reacting constantly to a large set of volatile shocks. They are better used after the event to analyse the causal nexus, not projected to give forecasts. Central banks would have been better off ignoring them and using the available recent information for forecasts from event relationships. With money supply growth now negative year on year in all three, they should be worried now about 'overkill' provoking another financial crisis. Their aim should be the return to monetary stability and the avoidance of these recent sharp swings in money supply growth.

²Sterling effective exchange rate, Bank of England Index (2005 = 100)

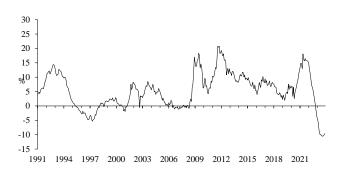
U.S.: Growth in M0 (Yr - on - Yr)



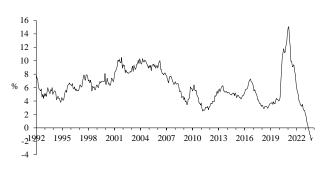
UK: Notes and Coins in Circulation Growth



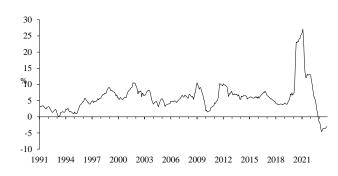
U.S.: Growth in M1 (Yr - on - Yr)



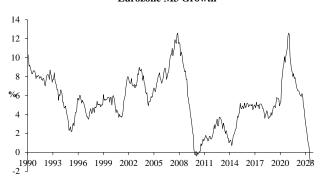
UK: M4 Growth



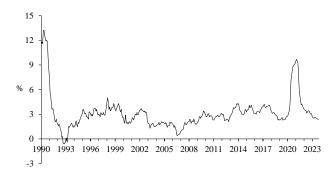
U.S.: Growth in M2 (Yr - on - Yr)



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Corruption Scandal Threatens Prime Minister Survival

The 2023 year has ended badly for Japanese Prime Minister Fumio Kishida and his Liberal Democratic Party (LDP). They faced one of the worst financial scandals in decades, resulting in growing public distrust of the party and threatening the stability of his government.

In recent months, media reports have emerged accusing LDP politicians of pocketing excess funds received at fundraisers. Most of the allegations have been levelled at the powerful Abe faction, named after the former prime minister who was assassinated last year. It is the largest group in the ruling party with 99 lawmakers. Until recently, it also held some of the most critical positions in the cabinet. Its members are alleged to have hidden at least ¥500 million (\$3.5 million), although some media reports peg the amount closer to ¥1 billion. Prosecutors raided the offices of the Abe group and the Nikai faction, another leading LDP group. They are said to be investigating five of the six LDP factions for underreporting ticket funds — including the prime minister's faction.

The basic premiss is this: The factions hold fundraising parties where they sell admission tickets. The faction sets a quota for the number of people each member is supposed to corral for the party. If a faction member exceeds the quota, the faction returns some of the proceeds back into the individual member's pocket as a reward. Meanwhile, a share of the total funds raised are kept off the books for discretionary use. In Japan, it is common for politicians to host ticketed events where they are set a fundraising target through ticket sales. But many LDP MPs are accused of keeping excess sales off the books; they're alleged to have pocketed the "kickbacks" or put it into a slush fund. The slush fund money is used to make payments to either maintain or increase their political network, a practice common across Japanese politics, says Seijiro Takeshita, a professor of management and informatics at the University of Shizuoka. "In order to sustain your position as an MP in Japan, you often have to take good care of your buddies — [the ones who will] support you in your prefecture, or in the cities, towns or villages [and] the regional politicians. And in order to, basically in my opinion, bribe them, you need cash, because you can't go through the formal methodology of donations anymore — that's forbidden," he says.

Initially, Kishida did not respond to media revelations, it took about a week and a half before he made his first formal announcement on the matter, stating that as LDP president, he has ordered all factions to cease fundraising parties until the matter is adequately resolved. He then replaced four key cabinet ministers, including the position

of Chief Cabinet Secretary, which serves as the face of the government.

It should be said that Kishida himself hasn't been implicated in wrongdoing, and he withdrew from his faction to distance himself. He has also pledged to clean up politics and hinted at legal reforms, promising to take to the task "like a ball of fire". However, this did not prevent a continued slide in the polls. According to a recent Nikkei poll, a leading newspaper in Japan, support for the cabinet declined 4 points from the previous month to 26%, at the lowest level in many polls since the LDP returned to power in 2012 under Prime Minister Shinzo Abe. The disapproval rating instead rose 6 points to 68%, exceeding support for seven consecutive months since June, while 67% said Kishida as the party leader was "responsible" for the fundraising scandal.

The turmoil threatens Kishida's policy program, as he tries to push through measures to shield voters from the effects of inflation and seeks ways to fund his plans for the largest defence expansion since World War II. "This is really a crisis situation," said Natsuo Yamaguchi, the head of Kishida's coalition partner party Komeito. "We must clear up the political funding problem with no half measures and then think about how to start over again from fundamentals." The incident may also be "the final nail in Kishida's political coffin. Whatever hopes he might have had of surviving past the party presidential election next September are effectively gone. The question now is whether the party will keep him in office until then", said Michael MacArthur Bosack, a special adviser for government relations at the Yokosuka Council on Asia-Pacific Studies, a non-profit research centre based in Japan. "This will likely be frustrating for Kishida because the relationship between LDP factions and shady money practices far preceded his tenure as prime minister; nevertheless, as the leader of the government and president of the party, the average Japanese citizen will not see it that way", he added.

Moreover, as consumer prices continue to rise and wages remain stagnant, Kishida will find little sympathy from the public as they read about LDP politicians breaking the law to line their pockets. Observers should expect Kishida's already dwindling public approval rating to drop even further, opening the door for a challenger to make his or her move.

There is little doubt that Kishida will strive to retain his position as head of the government. His saving grace may be that a party leadership vote is not due until next September. His chance of re-election in the LDP presidential race will largely depend on the administration's response to the current funding scandal and its entanglement in it.

MARKET DEVELOPMENTS

With inflation coming down sharply in the wake of now-negative money supply growth the investment context is changing to one of falling interest rates and reviving output. Both bond and equity prices should rise

steadily in this environment. With output recovering from its recent stagnation, tax revenues will rise and encourage bolder supply-side policies to revive longer term growth.

Table 1: Market Developments

		arket evels		ction for in 2024/5
	Dec 9	Jan 8	Previous	Current
			Letter	View
Share Indices				
UK (FT 100)	7555	7694	7879	8225
US (S&P 500)	4585	4726	4915	5048
Germany (DAX 30)	16759	16716	19843	19893
Japan (Tokyo New)	2324	2394	3131	3164
Bond Yields (governm	ent			
UK	4.04	3.78	4.00	3.00
US	4.23	4.02	3.40	4.00
Germany	2.27	2.20	2.20	2.40
Japan	0.77	0.58	0.50	1.00
UK Index Linked	1.00	0.96	1.00	1.00
Exchange Rates				
UK (\$ per £)	1.25	1.27	1.20	1.22
UK (trade weighted)	81.79	82.13	77.3	77.3
US (trade weighted)	109.80	108.87	113.2	113.2
Euro per \$	0.93	0.91	0.98	0.98
Euro per £	1.16	1.16	1.18	1.18
Japan (Yen per \$)	144.51	143.90	140.0	140.0
Short Term Interest R	ates			
UK	5.34	5.32	4.00	3.00
US	5.63	5.59	4.30	4.30
Euro	3.97	3.94	3.00	3.30
Japan	-0.03	-0.03	0.10	0.20

Table 2: Prospective Yields ¹

Equities: Co	ntribution	to £ yiel	d of:			
•	Dividend	Real	Inflation	Changing	Currency	Total
	Yield	Growth		Dividend Yield		
UK	2.10	0.9	3.0	3.00		9.00
US	2.00	1.2	2.6	3.00	4.05	12.85
Germany	2.10	0.4	2.6	16.00	-3.17	17.93
Japan	1.90	0.9	2.3	29.00	6.65	40.75
UK indexed ²	0.96		3.0	16.00		19.96
Hong Kong ³	2.60	4.8	2.6	-21.00	4.05	-6.95
Malaysia	3.30	3.8	2.6	35.00	4.05	48.75
Singapore	3.50	0.7	2.6	-8.00	4.05	2.85
India	1.40	7.2	2.6	17.00	4.05	32.25
Korea	1.10	2.0	2.6	-28.00	4.05	-18.25
Indonesia	2.20	4.7	2.6	21.00	4.05	34.55
Taiwan	2.80	1.8	2.6	8.00	4.05	19.25
Thailand	3.20	2.6	2.6	17.00	4.05	29.45
Bonds: Cont	tribution to	£ yield	of:			
	Redemp		Changing	Currenc	e y	Total
	Yield	d	Nominal Rates			
UK	3.7	8	7.43			11.60
US	4.0	2	0.26	4.05		8.28
Germany	2.2	0	-2.68	-3.17		-3.03
Japan	0.5	8	-4.72	6.65		3.06
Deposits: Co	ntribution	to £ yiel	d of:			
_	Depos		Currency	Total		
	Yield	_				
UK	5.3		405	5.32		
US	5.5		4.05	9.64		
Euro	3.9	•	-3.17	0.76		
Japan	-0.0	3	6.65	6.62		

 $^{^1}$ Yields in terms of $\ensuremath{\varepsilon} s$ or $\ensuremath{\$} s$ can be computed by adjusting the £-based yields for the expected currency change.

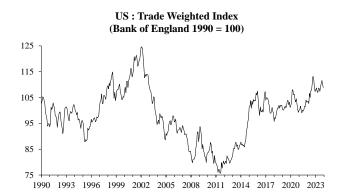
² UK index linked bonds All Stocks

³ Output based on China.

Table 3: Portfolio(%)

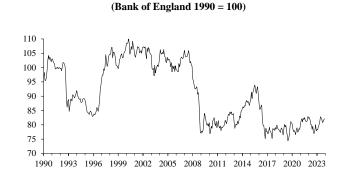
	Sterling Inves		Dollar Base	Dollar Based Investor		Euro Based Investor	
	November Letter	Current View	November Letter	Current View	November Letter	Current View	
UK Deposits (Cash)	5	5	5	5	1	1	
US Deposits	-	-	-	-	-	-	
Euro Deposits	-	-	-	-	-	-	
Japanese Deposits	-	-	-	-	-	-	
UK Bonds	-	-	-	-	-	-	
US Bonds	-	-	-	-	-	-	
German Bonds	-	-	-	-	-	-	
Japanese Bonds	-	-	-	-	-	-	
UK Shares	19	19	14	14	17	17	
US Shares	14	14	19	19	16	16	
German Shares	14	14	14	14	21	21	
Japanese Shares	9	9	9	9	11	11	
Hong Kong/Chinese Shares	4	4	4	4	4	4	
Singaporean Shares	4	4	4	4	4	4	
Indian Shares	4	4	4	4	4	4	
Thai Shares	3	3	3	3	3	3	
South Korean Shares	4	4	4	4	4	4	
Taiwanese Shares	4	4	4	4	3	3	
Brazilian Shares	4	4	4	4	3	3	
Chilean Shares	4	4	4	4	3	3	
Mexican Shares	4	4	4	4	3	3	
Peruvian shares	4	4	4	4	3	3	
Other:							
Index-linked bonds (UK)	-	-	-	-	-	-	

INDICATORS AND MARKET ANALYSIS FOREIGN EXCHANGE MARKETS









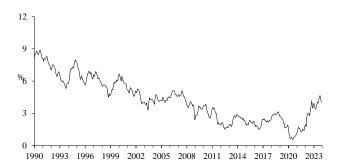
UK: Trade-Weighted Index



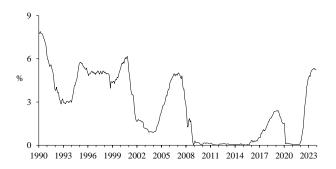
Japan: Yen Per U.S. Dollar

GOVERNMENT BOND MARKETS

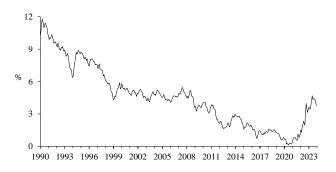
U.S.: Yield on Long-Term Government Bonds



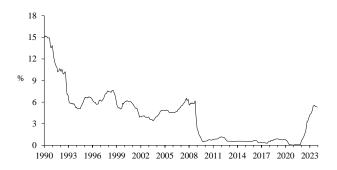
U.S.: 3-Month Treasury Bill



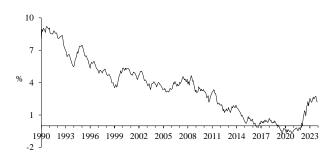
U.K.: Yield on Long-Term Government Bonds



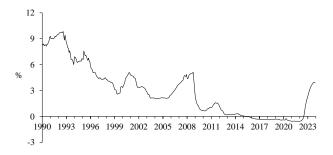
U.K.: 3-Month Certificate LIBOR Rate



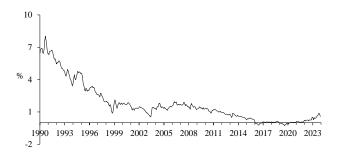
Germany: Yield on Public Authority Bonds



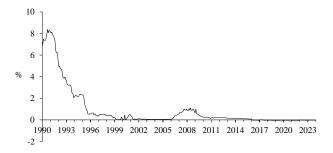
Germany: 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

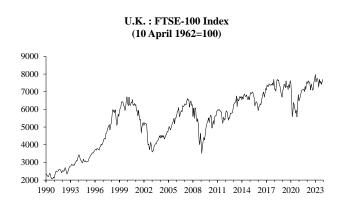


Japan: 3-Month Money Market Rate



MAJOR EQUITY MARKETS









EMERGING MARKETS

Anupam Rastogi

India

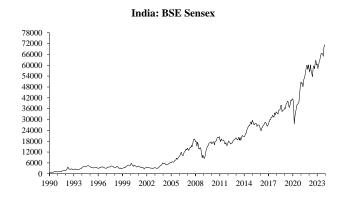
India's economic prospects remain bright, with the government's statistics projecting a GDP growth rate of 7.3% for the current financial year (2023–24), building upon the 7.2% growth achieved in the previous year (2022–23). India's GDP is expected to sustain a robust 7% growth rate in the medium term (from FY25 onwards). Transformative drivers, including a thriving consumer base, an expanding middle class, a green transition, and a demographic dividend, underpin this positive outlook. Additionally, increased access to finance and enhanced physical and digital infrastructure on the supply side further contribute to India's advantageous position.

Structural reforms have played a pivotal role in fortifying this growth narrative. Initiatives like the Goods and Services Tax (GST) have harmonized the national market. At the same time, Aadhaar, Jan Dhan, and UPI have promoted financial inclusion, even among the most economically disadvantaged segments of the population. Substantial investments in infrastructure, encompassing roads, ports, highways, and technology, have fostered physical and digital connectivity across the nation. In light of these developments, India retains its title as the fastest-growing major economy, with a notable GDP growth rate of 7.3% in FY2023–24.

India's services sector exhibited robust growth in December 2023, buoyed by heightened demand, job creation, and increased business optimism. The HSBC India Services Purchasing Managers' Index, which reached 59.0, extends an impressive streak of 29 consecutive months of expansion. This expansion is attributed to favourable economic conditions and positive demand trends. While the manufacturing sector's index dipped to 54.9 in December, the HSBC India Composite PMI Output Index surged to a three-month high of 58.5, propelled by strong services activity.

The nation's lower fiscal and current account deficits offer favourable economic prospects, translating into controlled inflation, reduced domestic and foreign debt burdens, and enhanced stability for the domestic currency. Historically challenging factors such as twin deficits appear unlikely to pose significant risks in the coming months. India is expected to continue outperforming in growth in the next fiscal year, with the government playing a pivotal role in supporting investments. The baton is gradually shifting toward the private corporate sector.

Former RBI Governor Raghuram Rajan, who had earlier doubts about India's ability to achieve 5% GDP growth in



2023, has had to eat his words in light of the nation's robust economic performance.

While the central bank anticipates retail inflation to reach 5.4% for FY24, it does not seem eager to rush into lowering repo rates. The RBI remains committed to ensuring that the effects of previous rate hikes are fully transmitted. Consequently, we expect the RBI to maintain its current stance until the latter half of 2024. We anticipate the RBI will continue its stealth-tightening approach, with no rate cuts expected in the current fiscal year. Due to these factors, the ten-year G-sec is forecasted to trade in the range of 7.15% to 7.30%.

India's current account deficit (CAD) has posted 1% of the gross domestic product, marking a positive economic development. Factors such as inflation control, reduced debt, and stronger value for the domestic currency contribute to this positive outlook. For FY24, we maintain our CAD forecast of 1.5% of GDP and anticipate a further decline to 0.3% in FY25.

The influx of capital from foreign investors is poised to benefit the rupee, particularly in the face of a strong dollar. Our medium- to long-term outlook on rates remains constructive while we exercise caution in the short term. With an elevated forward PE for the Indian stock market (approximately 20 times the 10-year average), this premium reflects the quality of growth driven by an investment and manufacturing revival that promises greater sustainability. A gradual global economic slowdown reinforces India's favourable position. It positions India advantageously with higher economic growth compared to emerging markets and China, alongside lower commodity prices, safeguarding the margins of the Indian corporate sector.

The rupee's outlook remains positive, driven by robust FII inflows and stable crude oil prices. India's inclusion in the GBI-EM Global Diversified index by JP Morgan, a phased process spanning ten months, is poised to usher in substantial inflows, potentially reaching \$25–30 billion.

This inclusion is expected to further bolster the rupee against the US dollar.

The equity markets in India concluded 2023 on a strong note, with most indices near their peak levels following a period of remarkable strength. On December 28, 2023, the Sensex attained fresh record highs at 72,484.34, culminating in an impressive year with gains of 18.74%.

	22-23	23-24	24-25	25-26	26-27
GDP (%p.a.)	7.2	7.3	7.0	7.0	7.0
WPI (%p.a.)	6.5	5.4	5.0	4.2	4.0
Current A/c(US\$ bill.)	-67.0	-60.0	-13.0	0.0	0.0
Rs./\$(nom.)	81.0	83.0	83.0	83.5	84.0

China

We anticipate that 2024 will be critical for China's economic growth trajectory. Despite initial post-Covid recovery, there continues to be a significant downward force due to a severe real estate market downturn. We project a GDP growth rate of 4.4% in 2024, reflecting both the fading base effect of post-pandemic resurgence and the persistent drag of the property market's decline. Additionally, while fiscal support remains in place, we anticipate a slight slowdown in infrastructure investment.

We expect to see CPI inflation fall modestly, reaching below 1% in 2024, alongside a USDCNY exchange rate of 7.2 by the end of the year. Several macro challenges loom on the horizon for China in 2024. Key focus areas include stabilizing the property market, addressing restructuring, effectively managing growth drivers, sustaining macro policy support, controlling the yuan's appreciation, and combatting inflationary pressures. Any of these factors, including consumers' continued preference for savings, have the potential to introduce significant surprises. Additionally, the external environment and developments in US-China relations may have unforeseen consequences, leading to unexpected fluctuations in the RMB exchange rate.

Chinese leader Xi Jinping has already cautioned the nation to brace for economic challenges in the coming year. He emphasized that economic vitality is critical to China's political priorities, especially in the context of the Communist Party's 75th anniversary in 2024. However, it is worth noting that Xi's approach differs from his predecessors, prioritizing national security over economic liberalization, tightening government control, and enhancing the central role of the Communist Party in Chinese society.

If these policies persist, China's growth trajectory may diverge from its ambition to ascend from the ranks of middle-income emerging markets and surpass the United States as the world's largest economy. Instead, China's focus may shift away from global economic dominance, with greater emphasis on national security and centralised control. For many Chinese citizens, the crucial factor lies in

China: SSE Composite Index



their ability to achieve success through hard work and determination rather than the specific ranking of the country on a global scale.

Recent indicators point to growing weaknesses in the Chinese economy, placing pressure on the government to implement bold measures to stimulate growth in the coming year. The official purchasing managers index for the manufacturing sector has consistently fallen below the 50 mark, indicating contraction. In contrast, the services sector remains subdued, reflecting consumer apprehension regarding job security and property market conditions.

Both consumer and producer prices in China have exhibited weakness, diverging from the global trend of rising inflation. The People's Bank of China has maintained its benchmark lending rates, reflecting a cautious approach to monetary policy.

While the Chinese yuan has made significant strides, becoming the world's fourth-most used payment currency in value terms, it still lags far behind the US dollar, which continues to dominate international payments.

Foreign investors have shown reduced interest in Chinese stocks, citing concerns over a fragile economic recovery and geopolitical tensions. Their net purchases of onshore stocks in 2023 are set to be the smallest on record.

One of China's most pressing challenges is its population implosion, a phenomenon without precedent. With birth rates plummeting — less than 10 million babies were born in 2022 compared to around 16 million in 2012 — the population, currently around 1.4 billion, is expected to decline to approximately half a billion by 2100. This decline is primarily attributed to the choices made by young women, who are fed up with government pressures and wary of the sacrifices associated with child rearing and are increasingly prioritizing their aspirations over traditional family expectations. This demographic crisis poses a significant challenge to the Communist Party's efforts to rejuvenate China's ageing population.

	22	23	24	25	26
GDP (%p.a.)	3.0	5.0	4.4	4.0	3.5
Inflation (%p.a.)	2.0	2.2	0.8	2.0	2.2
Trade Balance(US\$ bi	11.) 420.0	255.0	150.0	100.0	50.0
Rmb/\$(nom.)	6.8	7.3	7.2	7.4	7.6

South Korea

In the upcoming year, the forecast for the economy suggests a modest growth rate of 2% in 2024. It follows a period of sluggish expansion in 2023, which saw the economy grow by 1.4%, marking a three-year low. It's worth noting that our outlook is slightly more cautious compared to the official forecast figure of 2.2% for 2024.

The government's focus for the year ahead is to support people's livelihoods and manage various risk factors. In response, they have adjusted the country's 2024 GDP forecast downwards while raising their inflation projection. To stimulate consumption, the government is planning several initiatives. These include raising tax exemptions on credit card spending and continuing efforts to attract more foreign tourists. Measures to encourage tourism include exempting visa issuance fees for group tourists from China and other Asian countries.

For businesses, the government intends to introduce new temporary tax cuts on investments in research and development. Additionally, existing tax breaks on facility investments will be extended until 2024.

Regarding inflation, consumer prices are expected to rise by 3% in the current year, up from the previous forecast of 2.5%. It follows a year in which prices increased by 3.6%. The Bank of Korea anticipates that inflation will average 2.6% in 2024, up from its earlier estimate of 2.4%. The central bank signals that it will maintain its base rate at 3.50% before considering policy easing.

South Korea's exports have shown improvement, rising for a third consecutive month in December. This positive trend, particularly in semiconductor exports, raises hopes for an economic recovery driven by these crucial exports.

Consumer prices advanced by 3.2% from the previous year, slightly decelerating from the 3.3% rate in November.

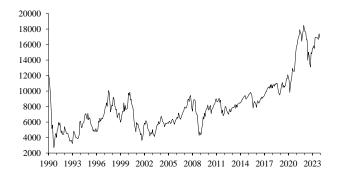
The growth in South Korean exports, especially in December, paints a robust picture for the end of 2023 and offers optimism for economic growth in the coming year. Adjusted for working-day differences, the value of shipments increased by an impressive 14.5% compared to the previous year. Overall imports declined by 11.1%, resulting in a trade surplus of \$4.5 billion.

A key area of focus in 2024 will be the extent to which the demand for semiconductor chips contributes to economic growth in South Korea and neighbouring countries like Taiwan and Vietnam. However, there are still uncertainties surrounding the health of the economic recovery in China, which serves as South Korea's largest export destination.

Given the scale of imports from the world's second-largest economy, it's important to note that China remains South



Taiwan: Weighted TAIEX Price Index



Korea's dominant trading partner. These dynamics will continue to shape South Korea's economic outlook in the year ahead.

	22	23	24	25	26
GDP (%p.a.)	2.6	1.0	2.0	2.5	2.4
Inflation (%p.a.)	5.1	3.6	3.0	2.5	2.5
Current A/c(US\$ bill.)	50.0	40.0	35.0	30.0	30.0
Won/\$(nom.)	1450	1340	1300	1300	1400

Taiwan

In 2023, Taiwan's GDP growth slowed to 1.4%, a notable decrease from the previous year's 2.6% growth and a significant drop from the robust 6.6% expansion recorded in 2021. This economic deceleration can be attributed primarily to soft global demand and a lacklustre performance in domestic capital investment.

Despite relatively low inflation rates compared to many Western countries, wage growth has struggled to keep pace with rising prices. The average inflation rate in the first three quarters of 2023 stood at 2.4%, surpassing the real total wage growth for the same period.

Taiwan's traditional growth model, centred around exporting intermediate goods to China for final assembly, is transforming. The share of exports to China and Hong Kong in Taiwan's total exports declined to 35% in 2023, down from 44% in 2020. Meanwhile, exports to the United States, Europe, and ASEAN countries increased by 7%. This shift highlights the need for Taiwan to embark on a new growth model for the next 30 years. The country has the potential to develop closer economic ties with Southeast

Asian nations, the United States, and India, paving the way for the next phase of economic growth.

The Central Bank of Taiwan has maintained its key interest rates unchanged for three consecutive quarters, with the discount rate remaining at 1.875%, the highest level in eight years. This policy stance has been aimed at combating rising inflation, with a 75 basis points increase in rates since March 2022.

Taiwan Ratings, a local partner of S&P Global Ratings, anticipates an uptick in exports in 2024, driven by a recovery in the tech sector, which is the backbone of the country's exports. Increased demand for electronics and the growth of electric vehicles, renewable energy, and artificial intelligence applications are expected to support the economy in the coming year.

However, Taiwan faces several significant challenges in 2024, including a potential global economic downturn, concerns about China's property market, high costs, and prolonged high-interest rates, which could increase the burden on weaker credit issuers.

The exchange rate of the U.S. dollar against the New Taiwan Dollar (NTD) is currently trading around NT\$31 and is not expected to exhibit significant volatility in the coming year.

Chinese President Xi Jinping has reiterated China's determination to reunify Taiwan with the mainland, emphasizing the importance of a shared sense of purpose among all Chinese on both sides of the Taiwan Strait. This stance marks a shift from Xi's previous year's message, where he referred to people on either side as "members of the same family." Despite China's aspirations, the proportion of people in Taiwan who identify primarily as Chinese has dwindled to below 3%. This shift has prompted even the party that once pursued peaceful political union with Beijing to distance itself from a "pro-Beijing" label.

Taiwan's recent presidential election resulted in the election of Lai Ching-te as president, who secured 40.1% of the vote. However, his party, the Democratic Progressive Party (DPP), did not maintain control of the legislature. Lai, often labelled a "separatist" by Beijing, has pledged to maintain peace in the region.

The markets have generally viewed these election results positively, as Lai has a friendly stance toward the United States. However, it's worth noting that Joe Biden, the President of the United States, emphasised that the U.S. does not support Taiwan's independence, likely to assuage China's concerns. All three major players involved — the United States, China, and Taiwan — seem to emphasise the importance of maintaining the status quo, even as political dynamics evolve.



A delegation of former high-ranking U.S. officials is scheduled to visit Taiwan, further indicating U.S. engagement with the island.

China also downplayed the election results and took measures to control social media discussions related to the election outcome. Some observers see these results as a setback for Xi Jinping's strategy, which has focused on pressuring Taiwan economically and militarily.

	22	23	24	25	26
GDP (%p.a.)	2.6	1.4	1.8	2.0	2.3
Inflation (%p.a.)	2.9	2.2	1.6	1.4	1.2
Current A/c(US\$ bill.)	90.0	65.0	60.0	60.0	60.0
NT\$/\$(nom.)	32.0	31.0	32.0	31.5	31.0

Brazil

In the third quarter, Brazil's economy achieved a 0.1% growth rate but faced headwinds from high-interest rates and a slowdown in the crucial agricultural sector. The economy is expected to grow by 3% in 2023.

Consumer prices in Brazil increased by 4.72% in mid-December compared to the previous year, closely aligning with the forecast of 4.8%. The central bank targets annual inflation at 3.25% for this year and 3% in 2024, with a permissible range of plus or minus 1.5 percentage points.

The Central Bank of Brazil implemented an anticipated half-percentage-point reduction in its benchmark lending rate. It signalled the possibility of additional cuts of the same magnitude in upcoming meetings. This action brought the key Selic rate to 11.75% in mid-December, marking the fourth consecutive rate cut and the lowest since March 2022.

In November, Brazil recorded a current account deficit that exceeded expectations, but the deficit as a proportion of GDP continued to shrink. The current account deficit for Latin America's largest economy totalled \$1.6 billion in November. Over the past 12 months, the current account deficit declined to 1.56% of GDP, down from 1.59% in the previous month and a more substantial 2.59% in November 2022.

While the Brazilian real has performed relatively well this year, ranking second only to the Mexican peso among

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major currencies, some analysts believe its fair value is closer to 4.5 reais per dollar than the current five reais per dollar. The BRL's movements are influenced by factors such as crude oil prices, which contribute to fluctuations in the foreign exchange market.

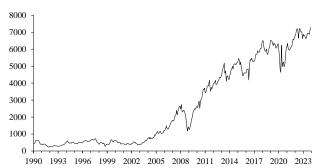
	22	23	24	25	26
GDP (%p.a.)	2.9	3.0	2.0	2.5	3.0
Inflation (%p.a.)	8.0	4.8	3.6	3.2	3.2
Current A/c(US\$ bill.)	-10.0	-12.0	-20.0	-10.0	-10.0
Real/\$(nom.)	5.2	4.7	4.8	4.8	4.8

Other Emerging Markets





Indonesia: Jakarta Composite



Malaysia: FT-Actuaries (US\$ Index)



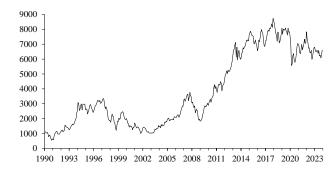
Thailand: Composite Index



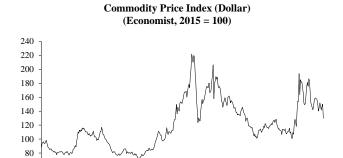
Singapore: Straits Times Index



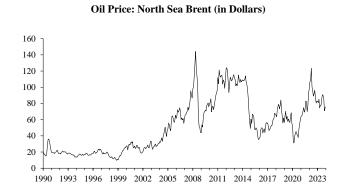
Philippines: Manila Composite

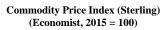


COMMODITY MARKETS

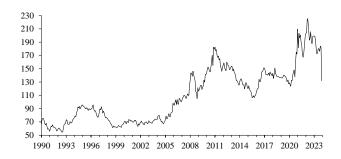


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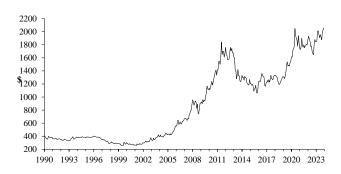




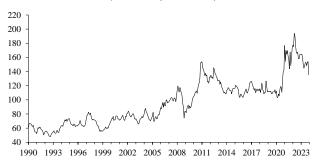
 $1990 \quad 1993 \quad 1996 \quad 1999 \quad 2002 \quad 2005 \quad 2008 \quad 2011 \quad 2014 \quad 2017 \quad 2020 \quad 2023$



Gold Price (in Dollars)



Commodity Price Index (Euro) (Economist, 2015 = 100)



UK FORECAST DETAIL

Prices, Wages, Interest Rates and Exchange Rate Forecast (Seasonally Adjusted)

	Inflation % ¹ (CPI)	Short Dated (5 Year)	3 Month Int. Rates	Nominal Exchange	Real Exchange Rate ³	Real 3 Month Int. Rates % ⁴	Inflation (RPIX)	Real Short Dated Rate of
	(CFI)	Interest Rates	IIIt. Kates	Rate (2005=100) ²	Kate	III. Kates /6	(Kria)	Interest ⁵
2020	0.9	0.1	0.2	78.2	72.9	-1.3	1.5	-1.4
2021	2.5	0.8	0.1	81.4	78.0	-6.4	4.1	-5.8
2022	9.1	2.5	2.0	79.1	82.4	-7.2	11.6	-6.7
2023	7.5	4.1	5.0	80.4	89.5	0.5	10.5	-0.4
2024	3.5	4.2	4.3	79.7	90.6	1.8	5.5	1.7
2025	2.0	3.0	3.0	79.4	90.6	1.0	2.8	1.0
2023:1	10.3	3.5	4.2	78.1	85.4	-1.8	13.6	-2.5
2023:2	8.6	4.1	5.2	80.4	89.8	0.5	11.2	-0.7
2023:3	6.8	4.5	5.5	82.2	92.3	1.7	9.0	0.7
2023:4	4.2	4.4	5.3	81.0	90.5	1.8	8.2	0.9
2024:1	4.5	4.3	5.0	79.7	90.5	2.1	7.3	1.4
2024:2	3.5	4.2	4.0	79.4	90.5	1.5	5.4	1.7
2024:3	3.0	4.1	4.0	79.6	90.6	1.8	4.6	1.9
2024:4	3.0	4.0	4.0	80.0	90.6	2.0	4.6	2.0
2025:1	2.0	3.0	3.0	79.5	90.6	1.0	2.8	1.0
2025:2	2.0	3.0	3.0	79.1	90.6	1.0	2.8	1.0
2025:3	2.0	3.0	3.0	79.3	90.6	1.0	2.8	1.0
2025:4	2.0	3.0	3.0	79.7	90.6	1.0	2.8	1.0

Consumer's Expenditure Deflator

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings	Wage Growth ²	Survey Unemployment	Millions	Real Wage Rate ³
	$(1990=100)^1$		Percent		(1990=100)
2020	279.1	1.6	4.5	1.3	149.7
2021	300.5	7.7	4.5	1.3	157.4
2022	318.6	6.0	3.7	1.1	152.5
2023	341.6	7.2	4.1	1.2	152.0
2024	355.8	4.2	3.0	0.8	153.1
2025	367.9	3.4	2.9	0.7	155.2
2023:1	332.0	6.3	3.9	1.1	150.2
2023:2	340.5	7.9	4.2	1.3	151.6
2023:3	346.6	8.2	4.1	1.2	153.0
2023:4	347.2	6.4	4.0	1.2	153.3
2024:1	349.0	5.1	3.3	0.9	151.2
2024:2	355.1	4.3	3.0	0.8	152.8
2024:3	359.3	3.7	2.9	0.7	154.0
2024:4	359.8	3.6	2.9	0.7	154.3
2025:1	363.3	4.1	2.9	0.7	154.4
2025:2	367.1	3.4	2.9	0.7	154.9
2025:3	370.1	3.0	2.9	0.7	155.5
2025:4	371.2	3.2	2.9	0.7	156.1

Whole Economy

Sterling Effective Exchange Rate Bank of England

Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate

Treasury Bill Rate less one year forecast of inflation

Short Dated 5 Year Interest Rate less average of predicted 5 year ahead inflation rate

Average Earnings Wage rate deflated by CPI

Estimates and Projections of the Gross Domestic Product¹ (£ Million 1990 Prices)

	Expenditure Index	£ Million '90 prices	Non-Durable Consumption ²	Private Sector Gross Investment Expenditure ³	Public Authority Expenditure ⁴	Net Exports ⁵	AFC
2020	150.6	721243.1	427576.4	250934.6	199232.3	-33095.4	123404.8
2021	163.8	784427.3	459674.3	271390.0	224535.7	-36903.3	134269.4
2022	170.9	818549.1	482283.2	270493.2	228365.7	-23824.9	138768.1
2023	171.8	822732.7	484026.0	270479.3	225317.6	-18636.8	138453.4
2024	173.5	831109.5	490083.0	264416.0	232155.7	-15891.4	139653.8
2025	176.8	846524.9	501723.3	266448.1	239198.5	-18462.9	142382.1
2020/19	-10.4		-10.1	-18.6	-4.8		4.1
2021/20	8.7		7.5	8.2	12.7		8.8
2022/21	4.3		4.9	-0.3	1.7		3.4
2023/22	0.6		0.4	0.0	-1.3		-0.2
2024/23	0.9		1.3	-2.2	3.0		0.9
2025/24	1.9		2.4	0.8	3.0		2.0
2023:1	171.6	205455.5	120624.7	74958.6	55700.5	-11224.5	34603.8
2023:2	172.0	205908.0	121111.1	66062.6	56116.4	-2756.3	34625.8
2023:3	171.6	205452.3	121001.2	64805.4	56537.9	-2250.2	34642.0
2023:4	172.0	205917.0	121289.1	64652.7	56962.8	-2405.7	34581.9
2024:1	172.7	206813.2	121214.6	72589.9	57390.1	-9648.0	34733.4
2024:2	173.2	207306.4	122257.0	64506.6	57820.4	-2454.1	34823.5
2024:3	173.8	208022.3	123117.0	63437.5	58254.2	-1824.1	34962.3
2024:4	174.5	208967.6	123494.4	63881.9	58691.1	-1965.2	35134.6
2025:1	175.6	210179.7	124017.7	74853.5	59131.3	-12471.5	35351.3
2025:2	176.3	211103.5	124954.1	64240.4	59574.2	-2221.0	35444.2
2025:3	177.0	211938.9	125899.8	63519.6	60021.5	-1821.7	35680.3
2025:4	178.2	213302.9	126851.6	63834.5	60471.6	-1948.6	35906.2

Financial Forecast

	PSBR/GDP % ¹	GDP ¹	PSBR	Current
		(£bn)	(£bn)	Account
		` ,	Financial Year	(£ bn)
2020	15.5	2090.9	312.9	-60.3
2021	5.0	2467.1	121.5	-10.8
2022	4.7	2776.0	130.5	-77.3
2023	3.8	2963.7	112.2	-42.7
2024	1.4	3088.9	42.3	-14.7
2025	0.9	3220.4	29.9	1.5
2023:1	3.1	718.1	22.5	-15.7
2023:2	7.6	733.0	55.7	-24.0
2023:3	4.2	736.1	30.6	-17.2
2023:4	2.0	738.3	14.9	-1.5
2024:1	1.5	756.3	11.0	-7.3
2024:2	1.4	764.1	10.9	-8.6
2024:3	1.4	768.8	11.1	0.1
2024:4	1.3	772.1	10.2	1.1
2025:1	1.3	784.0	10.1	0.8
2025:2	1.1	794.0	9.0	0.5
2025:3	1.1	798.8	8.4	0.1
2025:4	1.0	803.8	8.0	0.1

GDP at market prices (Financial Year)

GDP at factor cost. Expenditure measure; seasonally adjusted

Consumers expenditure less expenditure on durables and housing

Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building

General government current and capital expenditure including stock building

Exports of goods and services less imports of goods and services

WORLD FORECAST DETAIL

Growth Of Real GNP									
	2020	2021	2022	2023	2024	2025			
U.S.A.	-2.8	5.9	2.1	0.7	1.2				
U.K.	-10.4	8.7	4.3	0.6	0.9	1.9			
Japan	-4.3	2.2	1.0	1.1	1.1				
Germany	-3.7	2.6	1.9	-0.3	1.4				
France	-7.9	6.8	2.5	0.3	0.6				
Italy	-9.1	6.6	3.3	-0.1	0.3				

Growth Of Consumer Prices									
	2020	2021	2022	2023	2024	2025			
U.S.A.	1.3	4.7	8.0	3.9	2.5				
U.K.	0.9	2.5	9.1	7.5	3.5	2.0			
Japan	0.0	-0.2	2.5	2.1	1.2				
Germany	0.5	3.1	7.9	6.2	2.7				
France	0.4	1.7	5.4	4.0	2.0				
Italy	-0.1	1.9	7.6	5.0	2.4				

Real Short-Term Interest Rates									
	2020	2021	2022	2023	2024	2025			
U.S.A.	-4.6	-7.1	-1.7	2.4	2.0				
U.K.	-1.3	-6.4	-7.2	0.5	1.8	1.0			
Japan	0.3	-2.4	-2.1	-1.1	-1.4				
Germany	-3.6	-8.5	-5.9	0.4	0.5				
France	-2.2	-6.0	-3.7	1.1	0.8				
Italy	-2.4	-8.2	-4.7	0.7	0.7				

Nominal Short-Term Interest Rates									
	2020	2021	2022	2023	2024	2025			
U.S.A.	0.1	0.1	2.2	4.9	4.0				
U.K.	0.2	0.1	2.0	5.0	4.3	3.0			
Japan	0.1	0.1	0.0	0.1	0.1				
Germany	-0.5	-0.6	0.3	3.1	2.8				
France	-0.5	-0.6	0.3	3.1	2.8				
Italy	-0.5	-0.6	0.3	3.1	2.8				

Real Long	Real Long-Term Interest Rates								
	2020	2021	2022	2023	2024	2025			
U.S.A.	-3.3	-2.1	1.3	1.5	1.2				
U.K.	-1.4	-5.8	-6.7	-0.4	1.7	1.0			
Japan	-1.3	-1.7	-1.5	-1.1	-1.3				
Germany	-5.0	-4.4	-0.9	0.1	0.0				
France	-3.3	-2.9	-0.6	0.9	0.7				
Italy	-3.3	-2.6	0.3	2.3	2.2				

Nominal Long-Term Interest Rates									
	2020	2021	2022	2023	2024	2025			
U.S.A.	0.9	1.6	3.8	3.6	3.2				
U.K.	0.1	0.8	2.5	4.1	4.2	3.0			
Japan	0.0	0.1	0.2	0.5	0.5				
Germany	-0.6	-0.2	2.1	2.3	2.1				
France	-0.3	0.2	1.8	2.9	2.7				
Italy	0.5	1.2	3.0	4.4	4.2				

Index Of Real Exchange Rate (2010=100) ¹									
	2020	2021	2022	2023	2024	2025			
U.S.A.	118.7	116.1	128.3	128.0	128.5				
U.K.	99.6	106.6	112.6	122.3	123.8	123.8			
Japan	77.8	71.0	59.9	59.2	59.3				
Germany	97.1	97.9	95.0	95.1	95.4				
France	94.7	94.0	89.6	89.5	89.0				
Italy	95.4	95.1	91.6	91.3	89.9				

Italy 95.4 95.1 91.6 91.3 89.9

The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation in the real exchange rate.

Nominal Exchange Rate (Number of Units of Local Currency To \$1)									
	2020	2021	2022	2023	2024	2025			
U.S.A. ¹	124.77	119.77	127.34	126.90	127.40				
U.K.	1.28	1.38	1.24	1.24	1.23	1.22			
Japan	106.60	110.45	133.10	136.20	137.80				
Eurozone	0.87	0.85	0.95	0.98	0.99				

 $^{^1}$ The series for the USA is a nominal broad U.S dollar index (2010=100); the series for the UK is \$ per £

^{*} Forecasts based on the Liverpool World Model