

REGIONAL HIGHLIGHTS

Fewer than 5% of reserves managers intend to increase their exposure to the region and African assets currently make up only 2.5% of global portfolios.

African reserves managers use external managers for more than 16% of their assets under management, the highest for any region apart from Latin America.

More than two-thirds of respondents do not implement ESG criteria in their reserves management practices, with 50% attributing the relative complexity of sustainable assets – almost double the 26% global average - as one of the main obstacles to integrating ESG criteria into investment policies.

The role of the renminbi has increased as economic and financial ties with China deepen. As a proportion of total portfolios, a 5.2% allocation represents a greater share than even Asia Pacific, with 42% of central banks planning to increase this exposure in the next 12-24 months.

The dollar is becoming less important to African reserves managers, with its representation in African portfolios falling to 61% from 69% in 2021 - the only region to reduce dollar holdings.

Top 10 central banks

Regional Ranking	GPI Rank	Country	Institution	AUM \$bn	\$bn change on 2021	% change on 2021
1	31	Libya	Central Bank of Libya	85.5	12.6	17%
2	41	South Africa	South African Reserve Bank	57.8	3.6	7%
3	42	Egypt	Central Bank of Egypt	56.7	6.7	13%
4	45	Algeria	Bank of Algeria	46.1	-2.8	-6%
5	50	Nigeria	Central Bank of Nigeria	41.8	5.1	14%
6	54	Morocco	Bank Al-Maghrib	35.6	-0.4	-1%
7	63	West African System	Banque Centrale des Etats de l'Afrique de l'Ouest	24.2	2.3	11%
8	74	Angola	Banco Nacional de Angola	15.6	0.6	4%
9	79	Ghana	Bank of Ghana	10.8	3.2	42%
10	81	Central African System	Banque des États de l'Afrique Centrale	9.8	2.0	26%

Biggest changes in reserve assets

Top three risers and fallers by change in reserves, \$bn

\$bn change on 2021	% change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		Regio	nal rank
12.6	17%	Central Bank of Libya	Libya	85.5	31	▲ 3	1	▶0
6.7	13%	Central Bank of Egypt	Egypt	56.7	42	▶0	3	▶0
5.1	14%	Central Bank of Nigeria	Nigeria	41.8	50	▲ 2	5	▶0
-0.7	-22%	National Bank of Ethiopia	Ethiopia	2.4	123	▼ -9	21	▼-3
-1.0	-10%	Banque Centrale de Tunisie	Tunisia	8.7	88	▼ -8	12	▼ -3
-2.8	-6%	Bank of Algeria	Algeria	46.1	45	▼-2	4	▶0

Top three risers and fallers by change in reserves, %

% change on 2021	\$bn change on 2021	Institution name	Country	AUM \$bn 2022	GPI 20	GPI 2022 rank		nal rank
2362%	0.8	Reserve Bank of Zimbabwe	Zimbabwe	0.8	150	▲21	29	▲ 11
364%	2.7	Banque Centrale du Congo	DR Congo	3.5	113	▲35	18	▲ 9
195%	0.2	Central Bank of Burundi	Burundi	0.3	168	▲ 2	39	▶0
-14%	-0.1	Central Bank of Djibouti	Djibouti	0.6	160	▼ -9	34	▼-4
-22%	-0.7	National Bank of Ethiopia	Ethiopia	2.4	123	▼ -9	21	▼ -3
-29%	-0.2	Reserve Bank of Malawi	Malawi	0.4	163	▼-7	37	▼ -6

KEY NUMBERS

83%

of central banks list benchmarking as a reason for employing external managers

71%

anticipate inflation will remain high

8.15%

decrease in the dollar's share of portfolio currency

69%

do not implement ESG criteria

85%

believe successful reserves management is critical for protecting public reputation

55%

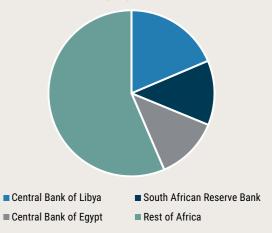
are unwilling to use more than 10% of reserves in a currency crisis

35%

cite IMF facilities as the most effective aspect of the global financial safety net

1. AFRICAN RESERVE ASSETS THE LEAST CONCENTRATED OF ANY

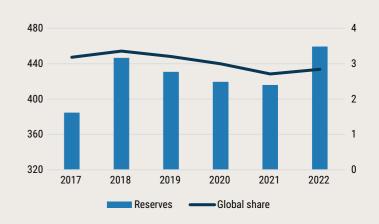
Concentration of reserve assets by region for selected countries



Source: International Monetary Fund

2. RESERVES INCREASE HALTS RECENT SLIDE

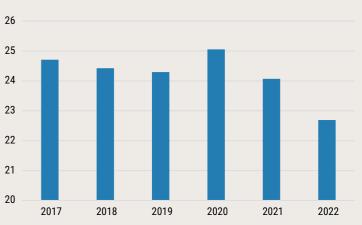
Total reserve assets by region, \$bn, and regional share of total global reserve assets, %



Source: International Monetary Fund

3. RESERVE ACCUMULATION IN LINE WITH ECONOMIC RECOVERY

Total reserve assets, % of GDP



Source: International Monetary Fund



LATIN AMERICA is the least favoured investment destination for global reserves managers. Just 0.24% of global portfolios are held in Latin American assets, and only 3% of reserves managers plan to increase their holdings in the region over the next 12-24 months.

Reserve assets under management with Latin American central banks have steadily increased since 2017 by 9.9%, with a relatively constant ratio of reserves to GDP.

However, in a period which has seen total central bank reserves increase by 33.6%, accumulation rates have not kept pace with those seen elsewhere.

Recent inflation and geopolitical shocks have reinforced Latin American reserves managers' propensity to hold dollar assets. More than 92% of their portfolios are dollar-denominated, compared to a global average of 57%.

Three-quarters of Latin American reserves managers classify central bank legislation as among the biggest challenges to introducing asset classes -the highest of any region. This is reflected in their portfolios – equities account for just 0.1%, and government bonds 47%, compared to global averages of 3.3% and 36%, respectively.

Regional Ranking	GPI Rank	Country	Institution	AUM \$bn	\$bn change on 2021	% change on 2021
1	12	Brazil	Banco Central do Brasil	362.2	6.6	1.9%
2	19	Mexico	Banco de México	207.7	8.7	4.4%
3	34	Peru	Central Bank of Peru	79.1	4.3	5.7%
4	37	Chile	Banco Central de Chile	62.8	3.6	6.1%
5	39	Colombia	Banco de la República Colombia	60.6	-3.2	-5.0%
6	52	Argentina	Banco Central de la República Argentina	39.7	0.3	0.7%
7	65	Guatemala	Banco de Guatemala	20.9	2.5	13.4%
8	72	Uruguay	Banco Central del Uruguay	17.1	0.7	4.4%
9	77	Dominican Republic	Banco Central de la República Dominicana	13.0	2.3	21.2%
10	78	Venezuela	Banco Central de Venezuela	10.9	4.6	71.5%

Biggest changes in reserve assets

Top three risers and fallers by change in reserves, \$bn

\$bn change on 2021	% change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		k Regional ra	
8.7	4%	Banco de México	Mexico	207.7	19	▼-1	2	▶0
6.6	2%	Banco Central do Brasil	Brazil	362.2	12	▶0	1	▶0
4.6	71%	Banco Central de Venezuela	Venezuela	10.9	78	▲ 18	10	▲ 5
-0.3	-4%	Banco Central de Costa Rica	Costa Rica	6.9	95	▼-2	14	▼ -1
-0.5	-10%	Banco Central de Bolivia	Bolivia	4.8	102	▼-2	16	▶0
-3.2	-5%	Banco de la República Colombia	Colombia	60.6	39	▼-4	5	▼-1

Top three risers and fallers by change in reserves, %

% change on 2021		Institution name	Country	AUM \$bn 2022	GPI 2022 rank		Regio	nal rank
71%	4.6	Banco Central de Venezuela	Venezuela	10.9	78	▲18	10	▲ 5
70%	0.4	Centrale Bank van Suriname	Suriname	1.0	145	▲12	26	▲ 1
26%	0.8	Banco Central de Nicaragua	Nicaragua	4.0	110	▲ 2	18	▶0
-4%	-0.3	Banco Central de Costa Rica	Costa Rica	6.9	95	▼-2	14	▼-1
-5%	-3.2	Banco de la República Colombia	Colombia	60.6	39	▼-4	5	▼ -1
-10%	-0.5	Banco Central de Bolivia	Bolivia	4.8	102	▼-2	16	▶0

24%

of reserve assets are managed by external managers - the highest by region

0.046%

fees paid to external managers as a % of AUM - the lowest fee by region

of respondents who engage external managers do so for reasons including knowledge transfer and diversification

of total portfolios held in dollars

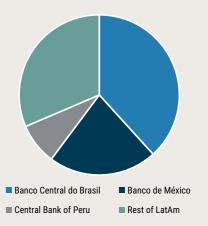
of central banks will not increase their renminbi exposure, despite foreseeing its role as a reserve currency increasing

of reserves managers cited legislation as one of the greatest obstacles to introducing new asset classes

of reserves managers see lack of data or other information as the biggest barrier to increased ESG investment

1. BRAZIL AND MEXICO ACCOUNT FOR OVER 60% OF TOTAL **REGIONAL RESERVE ASSETS**

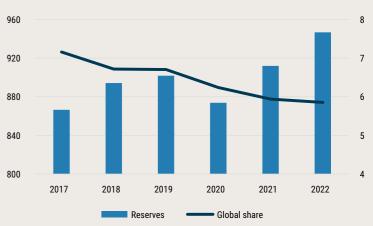
Concentration of reserve assets by region for selected countries



Source: International Monetary Fund international financial statistics

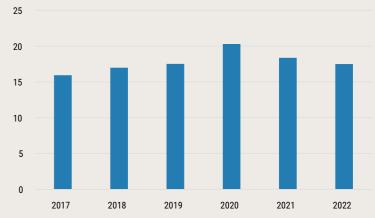
2. INCREMENTAL INCREASES INSUFFICIENT TO KEEP PACE WITH

Total reserve assets by region, \$bn, and regional share of total global



Source: International Monetary Fund international financial statistics

3. RESERVES ACCUMULATION PEGGED TO OUTPUT GROWTH Total reserve assets, % of GDP



Source: International Monetary Fund international financial statistics, World Economic Outlook



REGIONAL HIGHLIGHTS

Just over 34% of central bank portfolio assets are invested in Europe, and it is the biggest regional investment for reserves managers from Africa. Threequarters of managers globally plan to maintain their current allocations over the next 12-24

Recent reserves growth has seen Europe contribute a third of the nominal increase in global central bank assets since last year. Reserves have grown by 63% since 2017, almost twice the global rate of 33%.

Only 5.8% of reserves are managed externally, with these managers being primarily utilised in accessing foreign bonds and equities - the only region to do so in both domestic and foreign markets.

Some 58% of institutions in Europe are invested in social bonds, the highest in any region, compared to 53% across the rest of the world who do not plan on investing in this asset class.

The dollar composition of aggregate European reserves manager portfolios has increased by 4%, at the expense of euro and renminbi allocations. The 0.44% share fall in renminbi made Europe the only region where such a fall in renminbi holdings occurred over the past 12 months.

Top 10 central banks

Regional Ranking	GPI Rank	Country	Institution	AUM \$bn	\$bn change on 2021	% change on 2021
1	3	Switzerland	Swiss National Bank	1111.3	26.3	2%
2	6	Russia	Central Bank of the Russian Federation	630.6	34.6	6%
3	13	Germany	Deutsche Bundesbank	296.1	26.6	10%
4	14	France	Banque de France	253.5	20.9	9%
5	16	UK	Bank of England	239.2	16.1	7%
6	17	Italy	Banca d'Italia	229.4	16.3	8%
7	20	Czech Republic	Česká Národní Banka	173.9	7.5	5%
8	21	Poland	Narodowy Bank Polski	166.4	11.9	8%
9	26	Turkey	Central Bank of the Republic of Turkey	111.2	17.6	19%
10	29	Spain	Banco de España	99.0	11.9	14%

Biggest changes in reserve assets

Top three risers and fallers by change in reserves, \$bn

\$bn change on 2021	% change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		Regio	nal rank
34.6	6%	Central Bank of the Russian Federation	Russia	630.6	6	▼ -1	2	▶0
26.6	10%	Deutsche Bundesbank	Germany	296.1	13	▶0	3	▶0
26.3	2%	Swiss National Bank	Switzerland	1111.3	3	▶0	1	▶0
-0.2	-7%	Centralna Banka Crne Gore	Montenegro	2.0	131	▼ -8	42	▼-3
-0.3	-1%	Banca Naţională a României	Romania	51.9	43	▼-2	16	▶0
-0.9	-8%	Národná banka Slovenska	Slovakia	10.0	80	▼ -3	28	▼ -1

Top three risers and fallers by change in reserves, %

% change on 2021	\$bn change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		nk Regional r	
88%	1.4	Banque Centrale du Luxembourg	Luxembourg	3.0	117	▲ 13	39	▲ 2
77%	5.7	Central Bank of Ireland	Ireland	13.2	76	▲ 15	27	▲ 3
70%	0.9	Banka Slovenije	Slovenia	2.3	129	▲ 9	41	▲ 1
-1%	-0.3	Banca Naţională a României	Romania	51.9	43	▼-2	16	▶0
-7%	-0.2	Centralna Banka Crne Gore	Montenegro	2.0	131	▼ -8	42	▼ -3
-8%	-0.9	Národná banka Slovenska	Slovakia	10.0	80	▼ -3	28	▼ -1

KEY NUMBERS

31%

of European reserves managers rank increased risk-adjusted returns as the main reason for diversification against 11% in the rest of the world

44%

of external managers are used for accessing foreign equities

of portfolios are allocated to gold

89%

of central banks directly invest in gold, the highest of all regions

of reserves managers plan to increase equity allocations over the next 24 months

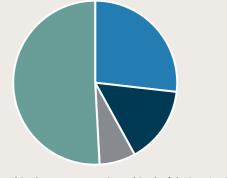
56%

of reserves managers invest in sustainable finance assets

of reserves managers plan on increasing allocations to green or sustainable equities - the only region to do so

1. SWISS NATIONAL BANK CONTRIBUTED 27% OF REGIONAL **RESERVES GROWTH SINCE 2017**

Concentration of reserve assets by region for selected countries



Swiss National Bank

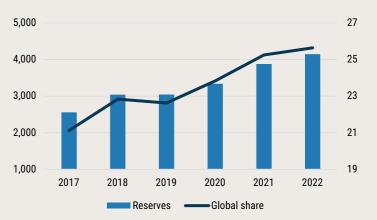
■ Central Bank of the Russian Federation

■ Deutsche Bundesbank ■ Rest of Europe

Source: International Monetary Fund

2. EUROPE NOW RESPONSIBLE FOR OVER A QUARTER OF GLOBAL

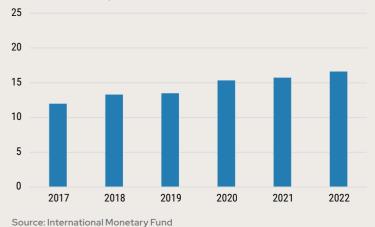
Total reserve assets by region, \$bn, and regional share of total global



Source: International Monetary Fund

3. RESERVES GROWTH REPEATEDLY OUTSTRIPS GROWTH

Total reserve assets, % of GDP



IF GLOBAL PUBLIC IN ASIA PACIFIC **REGIONAL HIGHLIGHTS KEY NUMBERS** Top 10 central banks

Of reserves managers surveyed, 33% intend to increase their exposure to Asia Pacific over the next 12-24 months, the highest proportion for any region, although it is lower than 2021's figure of more than 40%. Around 11% of central bank portfolios are already invested in Asia Pacific.

Asian reserves managers allocate less than 10% of their portfolios to the euro, the lowest of any region other than Latin America.

Reserves managers in Asia Pacific are more likely to invest in ETFs than their global counterparts, with 27% of respondents planning on increasing their allocation in the next 24 months. Stressing the benefits of ETFs in enhancing operational efficiency and gaining access to complex assets, Asia Pacific is the only region where monetary authorities invest in gold ETFs.

Asian reserves managers cite the market not yet being sufficiently open to foreign investors (69%) as one of the most important factors in not allocating more to renminbi assets. Only 47% cited geopolitical concerns, which was the most frequently cited impediment for all other regions (with the global average being 71%).

In response to rising inflation, reserves managers are hinting at a less conservative stance. On the trade-off between traditional risk approaches and absolute returns, 33% of reserves managers intend on maintaining their approach to risk and 27% to absolute returns, against global averages of 47% and 18%.

Regional Ranking	GPI Rank	Country	Institution	AUM \$bn	\$bn change on 2021	% change on 2021
1	1	China	People's Bank of China	3606.2	70.1	2.0%
2	2	Japan	Japanese Monetary Authorities	1448.1	7.9	0.5%
3	5	India	Reserve Bank of India	635.3	46.9	8.0%
4	7	Taiwan	Central Bank of the Republic of China	554.0	18.7	3.5%
5	8	Hong Kong	Hong Kong Monetary Authority	531.1	11.5	2.2%
6	9	South Korea	Bank of Korea	463.1	20.0	4.5%
7	11	Singapore	Monetary Authority of Singapore	417.9	55.6	15.3%
8	15	Thailand	Bank of Thailand	246.1	-12.2	-4.7%
9	22	Indonesia	Bank Indonesia	144.9	9.0	6.6%
10	24	Malaysia	Bank Negara Malaysia	117.0	8.8	8.2%

Biggest changes in reserve assets

Top three risers and fallers by change in reserves, \$bn

\$bn change on 2021	% change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		Regio	nal rank
70.1	2%	People's Bank of China	China	3606.2	1	▶0	1	▶0
55.6	15%	Monetary Authority of Singapore	Singapore	417.9	11	▶0	7	▶0
46.9	8%	Reserve Bank of India	India	635.3	5	▲1	3	▶0
-1.9	-17%	Nepal Rastra Bank	Nepal	9.2	87	▼-11	21	▶0
-2.3	-40%	Central Bank of Sri Lanka	Sri Lanka	3.4	115	▼ -16	26	▼-2
-12.2	-5%	Bank of Thailand	Thailand	246.1	15	▼ -1	8	▶0

Top three risers and fallers by change in reserves, %

% change on 2021	\$bn change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		Region	nal rank
42%	0.3	Banco Central de Timor- Leste	Timor-Leste	0.9	148	A 6	33	▲ 2
40%	0.4	Reserve Bank of Fiji	Fiji	1.5	141	▲ 2	31	▲ 1
36%	15.6	Reserve Bank of Australia	Australia	58.6	40	A 6	13	▲ 1
-17%	-1.9	Nepal Rastra Bank	Nepal	9.2	87	▼-11	21	▶0
-20%	-0.2	Maldives Monetary Authority	Maldives	0.8	152	▼-7	34	▼ -1
-40%	-2.3	Central Bank of Sri Lanka	Sri Lanka	3.4	115	▼ -16	26	▼ -2

of respondents anticipate inflation will become more volatile across most major economics over the next 24 months

of total portfolio assets allocated to government bonds - the lowest proportion in any region

of reserves managers willing to use over 30% of reserves in the event of a currency crisis

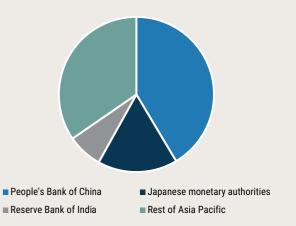
of total portfolios held in ETFs - double the global average of 1%

of reserves managers list administration and governance among the greatest obstacles to introducing new assets

of reserves managers invest in green or sustainable equities - more than double the global average of 11%

of reserves managers implement ESG criteria through exclusions or negative screening

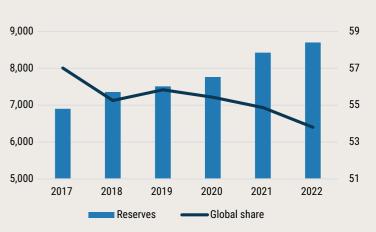




Source: International Monetary Fund

2. CONSISTENT RECORD OF RESERVES GROWTH

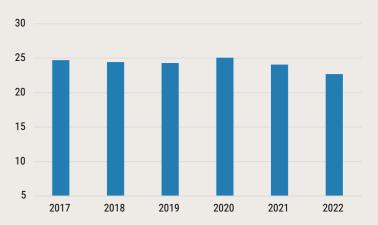
Total reserve assets by region, \$bn, and regional share of total global reserve assets, %



Source: International Monetary Fund

3. RESERVES-GDP RATIO LEAST VOLATILE BY REGION

Total reserve assets, % of GDP



Source: International Monetary Fund

REGIONAL HIGHLIGHTS

Only 5% of global reserves managers plan on increasing their exposure to the Middle East in the next 24 months. Middle Eastern assets represent a 3% share of global reserves manager portfolios.

Reserves managers in the Middle East have demonstrated their willingness to increase their portfolio allocations to both emerging markets and equities, at 36% and 10%, respectively, dwarfing global averages of 9% and 3%.

Top 10 central banks

Regional ranking	GPI rank	Country	Institution	AUM \$bn	\$bn change on 2021	% change on 2021
1	10	Saudi Arabia	Saudi Central Bank	455.4	1.7	0%
2	18	Israel	Bank of Israel	213.2	39.4	23%
3	23	UAE	Central Bank of the UAE	131.1	24.4	23%
4	36	Iraq	Central Bank of Iraq	63.4	8.9	16%
5	46	Kuwait	Central Bank of Kuwait	45.0	-3.2	-7%
6	48	Qatar	Qatar Central Bank	42.2	1.2	3%
7	51	Iran	Central Bank of Iran	41.4	20.1	94%
8	57	Lebanon	Banque du Liban	35.1	-7.3	-17%
9	67	Oman	Central Bank of Oman	19.7	4.7	31%
10	68	Jordan	Central Bank of Jordan	19.1	2.1	12%

Biggest changes in reserve assets

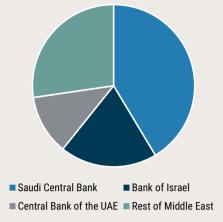
Top three risers and fallers by change in reserves, \$bn

\$bn change on 2021	% change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		Regional rank	
39.4	23%	Bank of Israel	Israel	213.2	18	▲ 1	2	▶0
24.4	23%	Central Bank of the UAE	UAE	131.1	23	▲ 2	3	▶0
20.1	94%	Central Bank of Iran	Iran	41.4	51	▲13	7	▲ 1
-0.7	-50%	Central Bank of Yemen	Yemen	0.7	155	▼-20	15	▶0
-3.2	-7%	Central Bank of Kuwait	Kuwait	45.0	46	▼-2	5	▶0
-7.3	-17%	Banque du Liban	Lebanon	35.1	57	▼-10	8	▼-2

Top three risers and fallers by change in reserves, %

% change on 2021	\$bn change on 2021	Institution name	Country	AUM \$bn 2022	GPI 2022 rank		Regional rank	
110%	2.5	Central Bank of Bahrain	Bahrain	4.7	103	▲18	13	▶0
94%	20.1	Central Bank of Iran	Iran	41.4	51	▲13	7	▲ 1
31%	4.7	Central Bank of Oman	Oman	19.7	67	4	9	▲ 2
-7%	-3.2	Central Bank of Kuwait	Kuwait	45.0	46	▼-2	5	▶0
-17%	-7.3	Banque du Liban	Lebanon	35.1	57	▼-10	8	▼-2
-50%	-0.7	Central Bank of Yemen	Yemen	0.7	155	▼-20	15	▶0

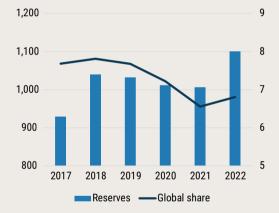
1. REGIONAL RESERVES DISTRIBUTION REMAINS THE MOST HIGHLY CONCENTRATED Concentration of reserve assets by region for selected countries



Source: International Monetary Fund

2. ANNUAL INCREASE OFFSETS RECENT DECUMULATION

Total reserve assets by region, \$bn, and regional share of total global reserve assets, %



Source: International Monetary Fund

3. RESERVES-GDP RATIO SLIDE DECELERATES FOLLOWING RECENT SHOCKS

Total reserve assets, % of GDP

