МИРОВАЯ ЭКОНОМИКА И МЕЖДУНАРОДНЫЕ ОТНОШЕНИЯ, 2024, том 68, № 6, сс. 5-17
WORLD ECONOMY AND INTERNATIONAL RELATIONS, 2024, vol. 68, no. 6, pp. 5-17

ECONOMY, ECONOMIC THEORY

DOI: 10.20542/0131-2227-2024-68-6-5-17 **EDN:** DGMWHA

PUBLIC INVESTMENT AND SUSTAINABILITY OF WORLD ECONOMY

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Received 25.03.2024. Revised 03.04.2024. Accepted 04.04.2024.

Abstract. As history shows, in difficult periods, there is invariably an increase in the state's involvement in economic life. As of now, there is a number fundamental macrotrends showing that the world fell into a highly dangerous situation of so called polycrisis. These include more and more evident dysfunction of the US-centric model of globalization, the inexorable formation of new independent centers of international power, extremely high level of geopolitical turbulence. The global financial and economic sphere continues to function due to massive debt pumping which translates to its underlying fragility. That is why the formation of an efficient system of sustainable development, as proclaimed in the UN SDG program, is so urgent. In order to overcome the current state of instability the world economy needs to found and engage stable and reliable sources of long-term capital instead of borrowed money. Such capital is available with the institutional investors, primarily the sovereign wealth funds and pension funds. As for the first ones, in recent years, they have noticeably diversified the goals, directions and objects of their operations. The changes are so serious that a term "sovereign wealth funds 3.0" entered into the analytical discourse. In the activities of most state investors, there is a tendency to shift the focus from the external to the internal one, which does not allow capital to completely dissolve in the global financial system. The geographical priorities of investment are changing: if initially the focus of state funds was on the most developed economies of the world, now it is beginning to shift towards the world majority, which in the future should contribute to a more equal distribution of productive forces and wealth and, as a result, to increase the stability of the world economy and improve the quality of its dynamics. "Sovereign wealth funds 3.0" are also characterized by new methods of funding, when it is provided by giving the fund the right to use cash flows generated by the state assets entrusted to it. Some sovereign wealth funds, having reached a certain level of maturity, enter the global private capital market, partially filling the deficit of reliable debt instruments observed there. Due to the peculiarities of financing and a long-term planning horizon, large sovereign wealth funds are able to painlessly absorb temporary financial losses, compensating them in the long-term perspective. This allows them to carry out the most important long-term projects. Thus, the state investment funds make a significant, though not always visible and appreciated, contribution into the stabilization of the financial market and the global economy at large.

Keywords: world economy, sustainable development, investment, sovereign wealth funds, global assets.

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ГОСУДАРСТВЕННЫЕ ИНВЕСТИЦИИ И УСТОЙЧИВОСТЬ МИРОВОЙ ЭКОНОМИКИ

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Статья поступила 25.03.2024. После доработки 03.04.2024. Принята к печати 04.04.2024.

Аннотация. К настоящему времени самой быстрорастущей группой глобальных инвесторов стали специализированные государственные институты – суверенные фонды. Анализ масштабов и характера их деятельности показывает, что они вносят существенный, хотя и не всегда адекватно оцениваемый вклад в обеспечение прочности мировой финансово-экономической архитектуры и стабильности глобальной экономики, а в перспективе – в формирование международной системы устойчивого развития.

Ключевые слова: мировая экономика, устойчивое развитие, инвестиции, суверенные фонды, глобальные активы.

INTRODUCTION

The topic of state involvement in the functioning of the international financial and investment system has traditionally been outside mainstream economic concepts and is typically reduced to particular aspects of government regulatory practices. Similarly, the activities of public investment institutions, particularly sovereign wealth funds (SWFs) – which theoretically belong to the category of institutional investors, have often remained peripheral in the studies of market analysts and academic scholars. However, now the situation seems to have changed profoundly.

SOME HISTORY

The first significant organisation falling under the definition of a sovereign wealth fund is generally considered to be the Kuwait Investment Authority, established in 1953. Thanks to the capital accumulated by this fund, the emirate managed to achieve independence from British rule in 1958. By the turn of the millennium, the world witnessed the emergence of a representative group of so-called commodity SWFs which operate on surplus revenues from the export of oil, gas, various ores, and other minerals.

Subsequently, driven primarily by the rapid economic development of China and Southeast Asian “tigers”, non-commodity SWFs, financed by revenues from the export of manufactured products, began to appear. By now this group not only matches but often surpasses the first one in terms of size and influence at the global investment scene.

A significant recent trend is the establishment of strategic SWFs in an increasing number of countries. Such funds are tasked to function as national economic development institutions. Their capital often comes from cash flows generated by state-run enterprises in crucial sectors such as banking, insurance, energy, transport, infrastructure, and telecommunications, rather than from foreign trade revenues.

The oil crisis of the early 1970s and the consequent surge in global hydrocarbon prices marked the first case when SWFs exerted a noticeable impact on the world economic system. Large oil-producing states, particularly the Persian Gulf monarchies, received enormous export revenues that were difficult to process within their small-size monocultural economies. In order to manage the unexpected financial surplus, the authorities of many exporting countries began to set up sovereign wealth funds and to invest it externally.

The upsurge of whole group of highly capitalised state investment organisations was profoundly important for the world economy at that time. It meant the formation of an effective mechanism for returning excess revenues from raw material-exporting countries to the most developed nations – the USA, Western Europe, and Japan as the main centres of world’s financial, economic, and political power. This phenomenon is known in economic history as petrodollar recycling.

Actually, this was the first post-World War II episode when state investment funds played a crucial role in stabilising the global economy and facilitating urgent structural and macroeconomic changes. Notably, even at that time, large SWFs remained minority investors in American and European banks and corporations, not even seeking seats in their boards of directors or in strategic decision-making.

The global financial crisis of 2008–2009 spurred the rapid expansion of SWFs’ scope and activities, increasing their influence on

cross-border investment flows. While acting in their archetypal counter-cyclical paradigm, sovereign wealth funds significantly mitigated the GFC's adverse effects on global finance. Most importantly, several SWFs invested multi-billion amounts into the charter capital of the key American and European banks which stayed on the verge of bankruptcy, thus providing them highly necessary liquidity. This marked another episode in the development of SWFs as a mechanism of preventing major market failures on a global scale and ensuring the stability of the world economy.

Considering the diversity and severity of problems faced by the world in the third decade of the 21st century, it looks reasonable to believe that the role of public investment in the international financial and investment system will further increase. Given the well-known historical experience, it is logical to assume that such investments, primarily made through SWFs, will significantly contribute to addressing the challenges of sustainable global development in the long-term perspective.

CURRENT MACROECONOMIC AND GEOPOLITICAL BACKGROUND

The current global situation, often described as a "polycrisis", is characterised by the growing dysfunctionality of the American-centric arrangement of the world established during the period of super-globalisation, its ongoing fragmentation due to a cascade of macroeconomic and geopolitical shocks, and the formation of new independent centres of international power. Objectively, the abovementioned macro-trends predetermine the instability of the global situation.

In assessing the prospects and risks of global development, American financial guru Nouriel Roubini, known for the accuracy of his estimates and forecasts, notes that the world is getting increasingly polarised – it is divided into two camps in the most important areas, such as finance, monetary and foreign exchange policy, trade, investments, and technologies [1]. Analysts at the World Economic Forum share the same view, emphasising that "dissatisfaction with the continued political, military and economic dominance of the Global North is growing, particularly as states in the Global South bear the brunt of a changing climate, the aftereffects of pandemic-era crises and geo-economics rifts between major powers". They expect anti-Western sentiment to increase in the coming years and believe that "deep divide on the international stage could mean that coordinated efforts to isolate 'rogue' states may be increasingly futile" [Source 1, p. 26].

Chief economists from leading international corporations, whose opinions were presented at the most recent World Economic Forum in Davos (January 2024), unanimously agree that "geo-economically driven restructuring of the global economy has been evident for some time" [Source 2, p. 12]. It is not surprising that a strong pessimism prevails in the assessments and forecasts from international organisations, investment banks, and various analytical centres (see, for instance, [Sources 3, 4]).

The UN report "World Economic Situation and Prospects 2024" projects global GDP growth at 2.4% (down from the preliminary 2023 figure of 2.7%) [Source 5]. Other forecasts are around this level: International Monetary Fund – 2.9%, Organisation for Economic Cooperation and Development – 2.7%, Reuters – 2.6%, and Citibank – 1.9%[1]. According to the IMF standards, a global GDP growth rate below 2.5% indicates the onset of a recession. Thus, the world is on the verge of a general economic recession, with quarterly statistics in several European countries and Japan already showing a slump into technical recession.

Geopolitical turbulence, particularly regarding Ukraine and Taiwan, exacerbates the situation. The conflict in Ukraine has escalated into an open armed conflict involving dozens of states and continues to escalate. The controversy around Taiwan, although less prominent in world politics, holds significant conflict potential with possibly severe consequences for the global economy. The geopolitical confrontation has become a critical factor destabilising the world economy, hindering it from achieving sustainable

[1] Available at: https://www.rbc.ru/economics/07/01/2024/657adc1f9a7947ec735ff39c?from=copy (accessed 16.01.2024).

upward dynamics. Finance and investment experts unanimously emphasise the urgent need for non-standard conceptual approaches to the functioning of the global economy and radical practical measures to develop a new development paradigm adequate to existing challenges [6, 7, 8].

To overcome financial and economic uncertainty and make progress towards achieving the UN Sustainable Development Goals by 2030, a strong revitalisation of global investment activity is essential. Presenting the 2024 Outlook Report, UN Secretary-General António Guterres emphasised that only “by unlocking big, bold investments we can drive sustainable development and climate action and put the global economy on a stronger growth path for all”. The cost of these relevant expenses is estimated at a minimum of US $ 500 Billion annually [Source 9]. The challenge lies in identifying a source for such substantial investments.

Considering the current situation in the global economy, it should be recognised that apocalyptic predictions of total collapse have not yet come true. The world markets are adapting to the tough exogenous conditions, having survived the years of the COVID-19 pandemic and the shock year of 2022, while showing certain growth in 2023. In terms of the features and trends of international investment activity, the data on the profitability dynamics of the main classes (categories) of global assets are of immediate interest (Table 1).

The presented figures illustrate the fundamental fragility of the global financial and investment sphere. Some improvement in asset returns is transitory; it occurs against the background of previous failures and, at best, only partially compensates for them. The basic reason appears to be that the global economic system continues to function primarily due to mass debt injections, with inflation of progressively newer portions of unsecured private and public debts. To reduce volatility and enhance sustainability of the global economy, the sources of reliable long-term capital are badly needed.

SOVEREIGN WEALTH FUNDS: EVERGROWING DYNAMICS

As well known, such capital is available to institutional investors, primarily sovereign and superannuation (pension) funds (see, for instance, [2, 3, 4]). Some of these funds have been operating in the global market for a long time and have become its influential actors. Sovereign funds are unambiguously classified as public investment organisations. In contrast, many superannuation funds are private institutions. However, since in most countries pension funds operate within rigid legal frameworks, they are usually considered as a part of the public finance sphere. Superannuation funds still remain the largest group of global asset holders. However, due to the rapid ageing of the population in the most economically developed countries, they now face enormous difficulties in maintaining the necessary ratio between incomes and expenditures [5].

Let us consider the current annual operations data for the main holders of global assets – sovereign and superannuation funds – in recent years (Table 2). It is evident that the investment activity of SWFs is generally on an upward trend, and they have already overtaken superannuation funds by current indicators. This difference can be

Table 1. Profitability dynamics for main classes of investment assets, 2020–2023, %

Asset class	2020	2021	2022	2023	Index
Fixed income	+10.2	–0.8	–14.8	+8.4	S&P500B
Public equities	+13.1	+19.3	–18.7	+20.7	S&PGL1200
Real estate	–5.2	+42.5	–28.4	+8.3	S&P500RE
Infrastructure	–8.7	+8.4	–3.7	+2.5	S&PGLInfra
Private equity	+0.6	+37.8	–31.7	+33.6	S&PLPE
Hedge funds	+4.9	+9.6	–3.6	+5.9	EH HFI

Source: S&P, EurekaHedge, Yahoo Finance databases.

attributed to the distinct statuses and operational features of each type of fund.

Superannuation funds are characterised by a highly conservative investment strategy. They are generally averse to significant market risks and losses because they must generate cash flow annually for uninterrupted payments to millions of individual clients. In contrast, sovereign wealth funds are not burdened with such immediate obligations. As state investors, they are functionally designed for long-term financial results, i. e. to benefit future generations of a country's citizens. SWFs are directly reporting only to the governments that established them. This allows them to operate effectively in an environment of global instability.

With the mandate to manage their money with considerable freedom, the largest sovereign funds, while having accumulated extensive market experience, significantly diversified the goals, directions, and forms of activities in recent years. Some reputable foreign experts assert that their *modus operandi* has radically evolved from a few decades ago, even introducing the term "SWF3.0" into analytical discourse [6].

Interestingly, a trend has emerged recently towards cooperation between SWFs and superannuation funds. Joint investment projects allow them to increase the total amount of invested money while reducing risks for each participant and gaining synergistic benefits by combining the competencies and experience of each party. In 2023, this approach was actively practised by the Gulf States and Singapore [5]. The total value of joint investments by sovereign and superannuation funds was estimated at over 30 Billion US $ [Source 10, pp. 6-7].

The value of assets under management (AuM) is the main indicator of the position of an investor. To present the situation, it makes sense to compare the AuM dynamics of SWFs and their main counterparts in the category of institutional investors – pension funds. Furthermore, foreign analytical centres have recently suggested considering the investment potential of governments in a broader sense, also taking into account the funds at the disposal of central banks (gold and foreign exchange reserves) [Sources 5, 6, 7].

The data presented in Table 3 indicates that the positions of SWFs are gradually but steadily strengthening, while pension funds and central banks have reached a plateau and are actually losing ground. This conclusion is supported by the calculations of the London-based Thinking Ahead Institute (TAI) [Sources 11, 12]. According to its estimates, in 2022 the share of SWFs among the 100 largest owners of global assets reached a record high mark throughout the whole history of observations, amounting to 9.1 Trillion US$ in current terms. According to the TAI-100 list, in 2017, the pension funds held 60.8% of global assets, SWFs – 32%, with the remaining assets held by management companies. Now, the balance has shifted: the share of pension funds dropped to 52.8%, while that of sovereigns rose to 38.9% (Table 4).

This redistribution of forces in the global financial and investment system can be attributed to the higher efficiency of SWFs in turbulent market conditions. British experts explain that

Table 2. Investments of major global asset holders, annual value and number of new transactions, 2018–2023

	SWFs, US $ Billion	Pension funds, US $ Billion	Total number of new transactions
2018	66.4	92.5	612
2019	95.1	84.8	526
2020	89.1	83.2	552
2021	111.1	119.7	892
2022	155.8	108.8	749
2023	124.7	80.4	592

Note. The provided figures reflect the scope of market transactions and large long-term property investments.

Source: [Source 10, p. 6].

Table 3. AuM of SWFs, pension funds and central banks, 2018–2023, US $ Trillion

	SWFs	Pension funds	SWFs and pension funds, subtotal	Central banks	Total
2018	7.4	17.9	25.3	13.4	38.7
2019	8.4	19.7	28.1	14.0	42.0
2020	9.3	21.3	30.6	15.1	45.7
2021	10.9	23.8	34.7	16.2	50.8
2022	10.5	22.3	32.8	15.5	48.3
2023	11.2	23.1	33.3	15.4	49.7

Source: [Source 10, p. 5].

Table 4. Top 100 global asset holders, shares in the overall performance, 2017–2022, %

	2017	2018	2019	2020	2021	2022
SWFs	32.0	33.5	32.1	34.5	36.7	38.9
Pension funds	60.8	59.1	60.8	58.4	55.9	52.8
Investment management companies	7.2	7.4	7.1	7.1	7.4	8.3

Source: [Sources 11, 12].

“SWFs saw the combined effects of relative investment performance and new inflows outperform over the last twelve months compared to other types of asset owners” [Source 13].

Analysts at BlackRock, the world’s largest private investment corporation, also note this trend, albeit from a different perspective. “Banks are experiencing major problems with funding in the current macro regime. Investment funds partially fill the emerging vacuum” [Source 14]. Experts from State Street, another international giant in private investment, and from the British Official Monetary and Financial Institutions Forum (OMFIF) hold similar views [4].

In general, the reviewed statistical data supports the hypothesis that the global economic role of state investors is set to increase. Particularly, this is true for the SWFs which represent the most capable and active segment of state investors.

CONCEPTUAL ASPECTS OF THE SUBJECT

Before discussing specific features of “SWF3.0,” it is essential to consider some conceptual aspects of public investment. These issues are addressed by the UN, OECD, and other international organisations, although often sporadically and usually in connection with some significant events. In contrast, private sector organisations, such as global consulting firms (e. g., PwC) and leading investment, pension, and insurance companies (BlackRock, State Street, Invesco), engage with these issues more intensively and in-depth. Specialised analytical centres such as Global SWF, SWF Institute, OMFIF, and Thinking Ahead Institute have also emerged, driven by practical rather than academic interests.

The fundamental reason for an increased attention to SWFs is the overall lack of capital capable of ensuring sustainable economic development at both global and national levels. Market sources are unstable and nearing exhaustion. Relying heavily on debt mechanisms, both private and public, can only delay addressing the core problem. Many analysts point to the risk of a sudden and uncontrolled collapse of the global economic architecture.

This concern prompts private financial, investment, advisory, and management companies, as well as expert organisations, to focus on the potential of sovereign investment institutions. Due to solid sources of funding and long-term planning horizons, large SWFs are relatively immune to market shocks and

imbalances. The stability of their capital base allows to absorb temporary financial losses and reimburse them in the long term. Crucially, they can make large-scale investments in major enduring projects without immediate prospects for quick returns. Such "patient" capital is now extremely in demand and its availability is more critical than ever for restoring and maintaining global economic sustainability.

The importance attached to SWFs by the Western investment community is evident in recent reports, articles, and reviews. It can be easily seen in the headlines like "State-Owned Investors Powering Through Crises" [Source 10], "The Most Influential Capital on the Planet" [Sources 11, 12], "Sovereign Wealth Funds Take Record Share of Global Asset Ownership" [Source 13], "Asset and Wealth Management Revolution 2023: A New Context" [Source 16], and "Investing in Transition" [7].

One can notice a radical shift in narratives and conceptual approaches compared to the global financial crisis of 2008–2009 and the following decade. Back then, most Western assessments highlighted the expansion of state investment organisations, often viewing them as alien and undesirable elements in the global market system, supposedly "violating the logic of capitalism", as coined by L. Summers, former U.S. Secretary of the Treasury [8]. Such narratives now look outdated.

It should be noted that analysing SWFs has a lot of specifics. This primarily stems from the lack of generally accepted statistics, unlike to foreign direct investments, which have been monitored for many years by the UNCTAD. In the case of SWFs, data from various publications is often diverse and inconsistent. The growing interest to this topic leads to an abundance of surveys with annual statistical and factual information which basically is not unified.

Discrepancies in published data are sometimes quite striking, even for the most elementary indicators. The variations depend on the study's objectives, selected perspectives, basic definitions, and experts' preferences. Particularly important is which financial organisations are included in the considered investor group, accounting for its numerical composition.

Still, this situation does not preclude analysis, as the integral performance of the SWFs as a distinctive group of global investors is almost entirely determined by a narrow circle of major members included in all lists and ratings. According to a recent survey, in 2023, the top ten SWFs accounted for approximately 80% of the total AuM of the group[2] [Source 17]. If we add into account the following 10–15 similar organisations, it becomes evident that the leaders of the ranking determine all main functioning parameters for the entire group. This allows to conduct a comprehensive analysis despite the group's inherent heterogeneity.

The valid indicators characterising the current profile of SWFs as a major class of global investors are presented on the website of the International Forum of Sovereign Funds (IFSWF):

– by distribution according to the main source of funding: 40.4% – commodity funds, 59.6% – non-commodity funds;

– by the mandate date: savings funds – 36.3%, hybrid (stabilisation) funds – 32.6, strategic funds – 31.1%;

– by the ratio of preferred asset classes: 30% – equities, 28 – bonds and other fixed income instruments, 23 – illiquid alternative assets, 10 – strategic investments, 5 – cash, 4 – liquid alternative assets[3].

SOVEREIGN WEALTH FUNDS 3.0: KEY SIGNATURES

Sovereign funds as development institutions. Historically, SWFs have performed traditional stabilisation and savings functions by externalising part of governmental finances, with investments primarily channelled to the USA and the European states. The purpose of national governments was

[2] Interestingly, in this case, an empirical regularity known as "Pareto principle" applies. It was formulated by the prominent Italian economist and sociologist back in 1897. According to it, a lion's share of certain effects/results is usually provided by a limited set of factors/causes (distribution in the original – 80/20).

[3] Available at: https://www.ifswf.org/SWFs-numbers (accessed 30.01.2024).

to preserve and multiply surplus budget revenues. This cross-border recycling of massive amounts of capital significantly accelerated the globalisation of the world economy.

However, much has changed in the third decade of the 21st century. The "coronavirus shock" of 2020 lead to a major disruption of the supply chains and financial flows established during the period of super-globalisation. In a more fragmented and regionalised world economy, the risks associated with foreign investment have sharply increased, while its opportunities and attractiveness have decreased due to growing politically motivated restrictions. The unprecedented politically motivated sanctions pressure on Russia by the collective West, including the freezing and attempts to seize its foreign assets, both public and private, is an extremely alarming signal to the countries of the Global South. Evidently, a similar approach can be applied to any nation daring to challenge US hegemony and to pursue a course of more independent and harmonious development "across all azimuths".

In such circumstances, many states have begun to prioritise strategic investment into their own economies to address problem areas, predominantly into infrastructure and the real sector. These tasks are primarily entrusted to sovereign wealth funds. Actual statistics demonstrate a steady increase in the share of domestic projects in the SWFs' operations. According to estimates, by the end of 2023, domestic investments accounted for US $ 4.6 Trillion, or 40% of the AuM of the entire group of sovereign wealth funds, which totalled US $ 11.2 Trillion (Table 5).

Currently, among the largest SWFs only four are entirely focused on foreign operations. For instance, Norway's Government Pension Fund Global (GPFG) invests exclusively in foreign assets (as reflected in its name) while domestic investment is managed by a much smaller governmental fund, Folketrygdfondet. In the UAE, the Abu Dhabi Investment Authority (ADIA) operates externally, while domestic investments are managed by the state-holding company ADQ[4] and partly by Mubadala. In Singapore, GIC focuses on overseas operations to avoid competition with the country's second sovereign fund, Temasek, which primarily deals with domestic projects. In the Republic of Korea, the fund *KIC* is mandated to focus on external operations, whereas the *National Pension System* has half of its investment portfolio consisting of local assets.

The shift in the ratio between the international and domestic projects in the activities of state investors signifies a strategic reallocation of worlds' capital. Instead of being "dissolved" in the vast global financial sphere, the capital is increasingly directed towards assets that ensure the modernisation and diversification of economies former peripheral states. Currently they are seeking to free from the shackles of neo-colonial dependence and to determine the paths and models of development by their own. This strategic shift provides a ground for addressing the significant imbalances in the arrangement of the global economy, which are among the underlying causes of its current instability and conflicts.

Geographical shifts in investment flows. Another characteristic feature of "SWF3.0" is the change of geographical priorities of foreign investments. Traditionally, sovereign funds focused their operations on the most developed economies. Now, growing attention is paid to the Global South, i. e. conglomerate of developing countries, or the World Majority.

Historically, SWFs invested primarily in the USA, continental Europe, the UK, and Japan. These regions were considered stable and offered reliable returns. However, by now many international organisations and experts agree that these economies have entered into a period of stagnation. Continental Europe, the UK, and Japan are showing minimal growth rates, while the USA is attempting to achieve a "soft landing" by continuously pumping federal government's debt. The viability of this policy is under question even among Western experts.

The hopes for real economic growth in 2024 and beyond are now largely seen only in

[4] ADQ (Abu Dhabi Developmental Holding Company PJSC) was established in 2018 "with the aim of consistent diversification of Abu Dhabi's economy... and ensuring its global competitiveness". Available at: https://www.adq.ae/about-adq/who-we-are (accessed 25.01.2024).

Table 5. Top 25 SWFs of the world: ratio of foreign and domestic operations, 2023

	Fund	*AuM total, US $ Billion*	Foreign		Internal	
			US $ Billion	share, %	US $ Billion	share, %
1	Government Pension Fund Global, GPFG (Norway)	1379	1379	100	0	0
2	Abu Dhabi Investment Authority, ADIA (Abu Dhabi/OAE)	984	984	100	0	0
3	Government Investment Corporation, GIC (Singapore)	769	769	100	0	0
4	KIA (Kuwait)	801	721	90	80	10
5	China Investment Corporation, CIC (PRC)	1240	413	33	827	67
6	QIA (Qatar)	429	304	71	125	29
7	State Authority of Foreign Exchange Investment Company, SAFE IC (Hong Kong/PRC)	1082	281	26	801	74
8	Public Investment Fund, PIF (Saudi Arabia)	700	217	31	483	69
9	Mubadala (UAE)	276	213	77	63	23
10	Temasek (Singapore)	288	210	73	78	27
11	Korea Investment Corporation, KIC (Republic of Korea)	181	181	100	0	0
12	Investment Corporation of Dubai, ICD (Dubai)	341	174	51	167	49
13	Future Fund (Australia)	164	131	80	33	20
14	National Fund – National Investment Corporation, NF-NIC (Kazakhstan)	61	58	95	3	5
15	Libia Investment Authority, LIA (Libya)	68	44	65	24	35
16	State Oil Fund of Azerbaijan, SOFAZ (Azerbaijan)	56	42	75	14	25
17	Abu Dhabi Developmental Holding Company, ADQ (Abu Dhabi)	199	40	20	155	80
18	Brunei Investment Authority, BIA (Brunei)	50	40	80	10	20
19	Queensland Investment Corporation, QIC (Queensland/Australia)	68	39	57	29	43
20	Emirate Investment Authority, EIA (UAE)	91	36	40	55	60
21	NZ Superannuation Fund (New Zealand)	41	36	87	5	13
22	Dubai World (Dubai)	47	31	67	16	33
23	National Welfare Fund, NWF (Russian Federation)	145	25	17	120	83
24	Alaska Permanent Fund, PFC (Alaska/USA)	74	20	27	80	73
25	Oman Investment Authority, OIA (Oman)	47	18	49	29	61
	TOTAL	11 164	6647	4517	60	40

Note. Ranked by foreign AuM of the presented funds.
Calculated by: [Source 10, p. 42].

the Global South. This includes macro-regions and states that are expected to drive global growth, so they are becoming increasingly attractive for investment. China has been a significant growth driver but is now experiencing a slowdown in its rapid export-oriented development. The foreign demand for Chinese goods is declining due to global stagnation and increasing political restrictions from the West. Additionally, there are risks of capital outflow and potential debt and monetary crises. China's GDP growth in 2023 was 5%, with forecasts for 2024 ranging from 4.4% to 4.7%, and long-term trends expected to stabilise around 4% [9].

Main hopes are now pinned on other major Asian economies, particularly India, which has already overtaken China in terms of population

and demonstrates more attractive GDP dynamics, with a forecast for 2024 of at least 6%. Additionally, the international investment community considers other major economies in the developing world to be promising, especially Brazil, Indonesia, Vietnam, the Philippines, and the East Asian region as a whole.

Accordingly, many SWFs re-orient their investments. For instance, Middle Eastern funds are actively investing in various projects in India as part of ambitious nation-wide development programs. Indian green energy projects look particularly attractive. Since the country does not have sufficient domestic fossil fuel resources for intensive economic development, its authorities are actively encouraging the development of green energy. By 2030, the central government plans to create 450 GWt of new generating capacities in this sector and openly relies on attracting "patient" capital, specifically investments from SWFs [10].

A number of such deals have already been realised. The Emirati ADIA and Singapore's GIC jointly spent US $ 0.7 Billion on the recapitalisation of Greenko*,* one of India's leading green power producers. Qatar's QIA acquired 3 per cent of Adani Energy*;* Emirati Mubadala invested in Tata Power*,* and ADIA, jointly with Canadian pension fund *CPP,* invested in ReNew Power. GIC actively supports green hydrogen projects; in particular, it took part in financing the construction of a large plant producing green ammonia in India and in a number of other similar projects together with partners from Australia [10].

At the same time, SWFs are not losing interest in the PRC. Beyond general considerations of diversification, the funds seek access to advanced technologies that have become increasingly difficult to obtain from the USA, Europe, and Japan due to their tightened regulatory policies. Additionally, Middle Eastern states find it advisable to deepen relations with Beijing, considering China is a major consumer of their oil. For its part, Beijing is interested in promoting the yuan as a means of payment in trading oil instead of the US dollar and welcomes the inflow of Arab investments.

Recently, KIA, QIA, Mubadala, ADIA and other SWFs from the Persian Gulf have been actively acquiring shares of Chinese companies on the Shanghai Stock Exchange. For instance, ADIA has recently invested in Shenhua Energy, an energy company, and Zijin Mining, a firm that received a license for a lithium mine in Congo within the framework of UN energy transition programs. Investments in China are attractive due to the optimal liquidity-to-risk ratio. The value of transactions and investments in China by Middle Eastern SWFs in the first ten months of 2023 alone totalled US$2.6 Billion, marking a more than 10-fold increase compared to 2022 (US $ 246 Million) [10].

In general, the modern geographical preferences in sovereign funds' investment activities reflect a move towards a more even distribution of productive forces and wealth across the global landscape. Ultimately, such a shift is likely to contribute to increased sustainability of the global economy and improved quality of its dynamics.

Funding. "SWF3.0" is also characterised by new approaches to funding. State investment organisations are now increasingly being set up by countries that are not among the world's major suppliers of raw materials or non-primary goods. Consequently, they do not have a surplus of available foreign currency. In this context, the investment fund's authorised capital is formed by transferring a set of state-run companies and enterprises ("national champions") under its management. In other words, funding is secured not by the transfer of real money but through vesting a SWF with the right to use the cash flows generated by state assets entrusted to it.

A typical example is Turkey which is chronically burdened by severe macroeconomic imbalances, but still strives to pursue an active industrial and investment policy. The Turkish Wealth Fund (*Turkiye Varlik Fonu*) set up in 2016 on the initiative of R.T. Erdoğan (then Prime Minister) is officially designated in its constituent documents as an asset-based development fund.

The AuM of the Turkish sovereign wealth fund is US $ 33 Billion; it manages the country's largest state-owned banks including Ziraat Bank (100%

of the authorised capital), Halk Bank (fund's share – 91.5%), VakifBank (fund's share – 74.8%), Istanbul Stock Exchange (Borsa Istanbul, fund's share – 80.6%), state-run insurance companies Turkiye Sigorta (fund's share – 74.8%) and Turkiye Hayat Emeklilik (fund's share – 74.8%). In total, the financial sector organisations account for 71.85% of the *Turkiye Varlik Fonu* share capital[5]. The remaining assets are in leading national companies with state participation, primarily in key sectors of the economy: power engineering (Botaş, Türkiye Petrolleri, TWF Energy, TWF Refinery and Petrochemical – 12.04%), transportation and logistics (Türk Hava Yolları, PTT, İzmir Alsancak Limanı – 9.72%), telecommunications (Turkcell, Türksat, Türk Telekom – 4.36%). The importance attached to this sovereign fund is evidenced by the fact that R.T. Erdoğan himself is its President.

Operations at the private capital market. Having reached a certain level of maturity, some SWFs enter the global private capital market, borrowing funds to expand the scale of their investment operations. In 2020, at least 30 sovereign funds issued debt securities or had permission for such operations.

The main Chinese investment fund China Investment Corporation (CIC) stands out: in 2015–2020, it issued debt securities in the world market for a total amount of more than US$70 Billion [11, p. 75]. Owing to the involvement of all possible sources of funding, CIC, which was set up in 2007, has grown rapidly and confidently holds the second place in the group of SWFs in terms of overall AuM (US $ 1.24 Trillion according to the annual 2022 report), following the Norwegian GPIF [Source 18].

Similarly, Singapore's Temasek expanded its capital base by US $ 25 Billion over the same period. In January 2024, it announced the release of another package of its short-term (up to 364 days) Euro-denominated bonds into free circulation under the ECP (European Commercial Papers) programme launched in 2011 that provided for a possibility of borrowing up to €5 Billion from the private capital market [Source 19]. In addition, the fund has envisaged medium-term bond programmes denominated in other currencies: Guaranteed Global Medium Term Notes for a total of US $ 25 Billion and MTN for a total of SG $ 5 Billion [Source 20]. Temasek's commercial securities are in good demand, given the highest reliability indicators in all ratings (Aaa – Moody's Investor Service, AAA – S&P Global Ratings).

The Saudi PIF, Mubadala (UAE), Khazanah Nasional (Malaysia), Mumtalakat (Bahrain), Samruk-Kazyna (Kazakhstan), as well as Qatari, Omani, Dubai and Turkish funds are entering the global private capital market. It is peculiar that they are increasingly borrowing without using the American dollar, but relying on *sukuk* Islamic banking principles which involve sharing the anticipated investment incomes rather than paying interest, adhering to the Islamic prohibition of usury.

Saudi Arabia is a prime example of this trend. The fund continually seeks additional capital to realise ambitious programs of the Kingdom's economic development. At the end of 2023, PIF raised US $ 3.5 Billion from the international money market by selling a package of 5- and 10-year Islamic bonds. These bonds compete with US Treasury bonds in yield, with the Saudis offering a premium of 120 basis points for the 5-year bonds and 140 for the 10-year bonds [Source 21].

From a global economic perspective, the entry of SWFs into the global borrowing market helps partially compensate for the deficit of reliable debt instruments. This contribution is recognised by foreign experts [11, p. 78]. By issuing debt securities, sovereign funds contribute to the stabilisation and deepening of the global financial market and, in a broader terms, to the formation of an international system of sustainable development.

RESULTS AND CONCLUSIONS

As history shows, in times of crises, government involvement in economic life is invariably activated. Currently, with the apparent insufficiency of private capital resources

[5] Available at: https://www.tvf.com.tr/en/our-portfolio/financial-services (accessed 05.02.2024).

needed to overcome the globally observed depressive manifestations, the prominence of financial resources managed by state authorities at various levels – national, regional, and intergovernmental – is growing. These resources are central to making an investment leap into a new, more sustainable global economy of the future.

The number of organisations belonging to the category of state investors, primarily SWFs, is steadily increasing. They are becoming more diverse in terms of the scope of funds at their disposal, sources of funding, statutory goals, and geography of operations. A fundamental shift in the paradigm of public investment is evident, reflecting the need to adapt to new global economic and geopolitical realities. This shift is clearly traced through changing of the ratio between foreign and domestic operations of SWFs, as well as the distribution of their investments across macro-regions of the world. Thus, the general trend towards the formation of a polycentric structure of world economic relations is being realised, among other things, through the activities of SWFs. This emerging structure will likely be characterised by greater stability than the current one based on the declining American hegemony.

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