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The sovereign wealth funds and monetary stabilization role on financial crisis

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Abstract:

Sovereign Wealth Funds SWFs play a crucial role in global financial markets, particularly during periods of crisis. This paper delves into the impact of SWF interventions on inflation rates amidst financial crises. By analyzing historical data of some emerging country how possessed a SWFs, the paper examines how SWFs actions affect inflation dynamics. Additionally, the paper investigates the relationship between SWF interventions and inflation rate. Through empirical analysis, the paper provides insights into the extent to which SWF interventions contribute to inflation volatility and stability during times of crisis. Understanding the interplay between SWFs and inflation is essential for macroeconomic stability in the face of financial turmoil.

Key words: Sovereign Wealth Funds, Financial Crisis, Inflation Rate.

JEL Classification Codes: E31, G23, G01.

Introduction :

Due to the growing importance of SWFs* in the international monetary and financial system, there is a growing literature on SWFs whose impact on financial stability remains in question. Their existence goes back decades, the first one was the Kuwait Investment Authority created in 1953 to invest the Kuwaiti government's oil revenues in behalf of its future generations. Many governments followed suit, most of them their assets come from the countries naturel trade surplus (MENA's zone†, Norway, Russia), thought funds can also come from other revenues such as foreign exchange reserves (China) , structural surpluses of state savings (Singapore), land leasing fees.

Sovereign wealth fund (SWF), is a state-owned investment fund composed of financial assets such as stocks, bonds, real estate, or other financial instruments. These funds are typically created by countries with significant foreign exchange reserves, often derived from revenues generated by commodities like oil or natural gas. Sovereign wealth funds serve various purposes, including stabilizing the economy, saving for future generations, and providing a buffer during economic downturns or financial crises. One of the primary functions of these funds is to mitigate the impact of volatile commodity prices on a country's budget and economy.

In the modern word generally after the first crisis of Tulip in 17 th century, the repetition of financial crises is a recurring phenomenon in economic history, and it often stems from a combination of systemic vulnerabilities, market dynamics, and policy responses. Several factors contribute to the repetition of financial crises. They are many political and policy to take off the crisis.

Specifically, a well-managed sovereign wealth fund can play a crucial role in providing stability in time of financial crisis. Here's how : -Economic Stabilization ; Countercyclical Investments ; Capital Injection ; Long-Term Planning.

* Sovereign Wealth Fund
† Middle East and North Africa

this paper, aims to study the role of this funds in period of crisis particularly Subprimes crisis (2008-2009) for a panal of country (emerging country). We will analyze, the impacts of this crisis on Monetary Stability (Inflation rate).

The principal question of the study is formed like follow:

Can Sovereign Wealth Funds of the country make them significant creditors to the rest of the word?

Answering questions in our inquiry requires a structured approach to effectively communicate findings, interpretations, and implications. We begin with the introduction; the work is organized into three parts: the first part explains the origin of the concept of sovereign wealth funds and their types, and their evolution over time. The second part presents the second phenomenon under study, namely financial crises. The third part is devoted to answering the question of the influence of sovereign wealth funds on countries during a crisis. The work concludes with a conclusion.

I. History and emergence of SWFs

Sovereign wealth funds are long-term investment funds with one or more well-defined objectives owned mainly by the state. The idea of creating this type of investment came from Kuwait in 1953, which is a country characterized by its oil wealth. The movement to create SWFs has been driven by other countries holding rents from their natural wealth. The main objective of the creation of these funds was twofold: first, to protect the state's revenues against any volatility in the prices of their export naturel goods and secondly to help countries manage their revenues over time in order to preserve a better future for the next generation. As of May 2015, there are 74 sovereign wealth funds in the international financial marketplace (SWFI, 2015), together they owner 10% of the world's market capitalization with more than $7 billion in financial assets.

Sovereign wealth funds by their nature have become a guarantor of economic stability in a country. Furthermore, they can intervene in supporting the maintenance of stability at several levels as shown in the following passage.

I.1. the formalist definition, types of SWFs and overall policy objectives

after being adopted by most rentier countries, SWFs have managed to prove their ability to be a short- and long-term investment guarantor. Firstly, we should define what is mean this type of investment and after say what are here types and how can it be a support of others public political.

I.1.1. what are Sovereign Wealth Funds?

Sovereign wealth funds offer various economic and financial benefits. They can help their home countries to avoid boom and bust periods; also, they facilitate savings and the intergenerational transfer of fiscal surpluses from commodity exports and privatizations; they allow for greater portfolio diversification and are more return-oriented than the reserve assets typically managed by central banks in order to reducing the opportunity costs of reserves (IMF, fond souverins: le FMI intensifie ses travaux bulletin, 4 march 2008). Also, (Jan Cernohorsky, 2021) considers that SWFs has decreased, and they are legitimate, influential, and significant participants on the global financial markets, and they can be described as viable business models for investing the reserves of a given country. For the authors, SWF have an important (Abdullah Al-Hassan, 2013) (Balin B. J., 2010) aspect of international investment and despite certain problems of regulating and transparency, these funds will become even more important as players on the financial and forces shaping the global economy.

I.1.2. types of SWFs and overall policy objective

The literature considers SWFs to be funds with different and varied sources and also different purposes. The International Monetary Fund categorizes SWFs objective broadly into five types (IMF, sovearing wealth fund, 2007):

- **stabilization funds** the main objective of this type is to protect public finances and the national economy against any fluctuation and sudden change in basic prices, mainly oil;

- **saving fund for future generation** it seeks to convert all non-renewable assets into a diversified product;
- **reserve investment corporation** the assets of such SWFs are reserve assets created to increase the return on reserves;
- **development funds** These are funds that aim to promote the national production potential through the financing of socio-economic projects;
- **contingent pension reserve funds** allow for unforeseen pension liabilities on the government balance sheet through the resource of non-pension contributions.

The objective of SWFs in country can be multiple specifically if his economy is rich in resource. For example, stabilization/saving in Norway, saving/ pension reserve in Australia also, stabilization/ saving/ development in Kazakhstan.

Therefore, the SWFs have the important role in macroeconomic stabilization and management. They are able to coordinate with other government institutions. The SWFs assets generate can have effect on public finances, monetary strategy, external accounts and also balance sheet. In general, the SWFs can have role in political management (Abdullah Al-Hassan, 2013):

- ***Fiscal policy*** can be affected by SWF funding and withdrawal rules that are usually derived from a fiscal rule, often based on Permanent-Income-Hypothesis consideration;
- **Monetary policy** may be impacted by wide fluctuations in fiscal revenues and procyclical implications for aggregate demand that typically affect inflation and the real exchange rate;
- **Exchange rate** variations could be mitigated by investing the SWFs resources abroad.

The SWFs can intervene as a financier of last resort by making massive injections of liquidity into the banking sector hit hard by the subprime crisis last crisis in (2007-2009). Unlike other national wealth management agencies such Central Bank or Ministries of

Finance, constrained by national budgetary rules, they are more flexible and innovative tools at the disposal of authorities. Supported by real efforts in terms of management, transparency and governance, SWFs can play a key role in financing development (Genre, 2015).

I.2. evolution and function in SWFs

The evolution and functions of Sovereign Wealth Funds (SWFs) have been subjects of considerable research. The evolution of SWFs reflects their adaptability to changing economic and geopolitical conditions. Their increasing prominence underscores the importance of understanding their functions, governance structures, and the impact they can have on global financial markets. Additionally, ongoing discussions continue about the need for international cooperation and standards to govern SWF behavior.

Table 1. The rank of the most important SWFs assets

Rank	Profile	Creation date	Total Assets
1	China Investment Corporation	2007	$ 1, 350, 863,000,000
2	Norway Government Pension Fund Global	1990	$ 1,259,629,434,000
3	Abu Dhabi Investment Authority	1976	$ 790,000,000,000
4	Kuwait Investment Authority	1953	$ 750,000,000,000
5	GIC Private Limited (Singapore)	1981	$ 690,000,000,000
6	Public Invest Fund (Saudi Arabia)	1952	$ 607,418,895,000
7	Hong Kong Monetary Authority Investment Portfolio	1993	$ 514,223,020,000
8	Temasek Holding (Singapore)	1974	$ 496,593,722,700
9	Qatar Investment Authority	2005	$ 475,000,000,000
10	National Council for Social Security Fund (China	2000	$ 473,799,060,897

Source: sovereign wealth fund institution (top 100 largest Sovereign Wealth Fund Ranking by total Assets 2023)

Table 1 show the total of some (top 10 country) assets of SWFs, the asset can vary depending the policies of the sponsoring country, and the economic conditions. Some SWFs are among the largest and most influential institutional investors globally. As of the last publication (2023) of SWFs “China Investment Corporation” take the first place with $1.35 Trillion USD. It's important to note that these figures are approximate and can change over time due to market fluctuations, investment returns, and changes in fund management strategies.

About function, many are articles who prove the SWF’S aims. We can resume that like fellow (Clark, 2013): 1) Stabilization of Government Finances: SWFs often act as financial cushions for governments during times of economic volatility. They provide a source of funds that can be tapped into to stabilize government finances when faced with revenue shortfalls or unexpected expenditures; 2) Diversification of National Wealth: SWFs help in diversifying a country's sources of wealth. If a nation heavily relies on a specific commodity or industry, creating a SWF allows for the investment of proceeds in a broader range of assets, reducing vulnerability to fluctuations in one sector; 3) Long-Term Savings for Future Generations: Many SWFs are established with the goal of saving wealth for future generations. By investing in a diversified portfolio, these funds aim to generate returns that can support social programs, infrastructure development, and other needs of future populations; 4) Countercyclical Investment and Influence on Global Capital Markets: SWFs can act as countercyclical investors during economic downturns. By strategically deploying capital during periods of market distress, they may contribute to stabilizing financial markets and supporting key industries Their existence can enhance a country's resilience to economic crises; 5) Development of Domestic Industries: Some SWFs are designed to promote the development of domestic industries. Investments may be directed toward strategic sectors, facilitating economic growth, technological advancements, and job creation within the country; 6) Global Portfolio Diversification: SWFs often pursue global diversification in their investment portfolios. This allows them to spread risk and potentially achieve better risk-adjusted returns by investing in various asset classes and geographic regions; 7) Management of Windfall Revenues: SWFs are commonly used to manage windfall revenues resulting from commodity exports (e.g., oil, gas, minerals). Rather than spending these revenues immediately, countries can channel them into SWFs for more strategic.

It's important to note that the specific functions of SWFs can vary widely depending on the objectives set by the sovereign entity establishing the fund. The governance structure, transparency, and ethical considerations also play significant roles in determining how SWFs operate and fulfill their functions. 10 billion American dollars is the number of all SWFs institutions around a word.

In the recent work of (Salman Bahoo, 2019) they offer policy recommendations and concluding remarks based on meta-literature review of 153 papers spanning from 2005 to 2013. Firstly, the collective literature suggests that Sovereign Wealth Funds (SWFs) function as genuine active investors aiming to boost portfolio returns, rather than being driven by political motives. Secondly, numerous scholars advocate for establishing a balanced level of tradeoff between the economic/market objectives and the political objectives of SWFs by the regulatory bodies. Thirdly, they observe a consensus among several scholars that the governance mechanisms of SWFs have shown improvement. Consequently, policymakers ought to incentivize SWFs to engage in more investments. Lastly, a primary obstacle hindering the growth of research on SWFs is the limited availability of published data.

II. Financial crises.

II.1. Generality about financial crise: definition and forms.

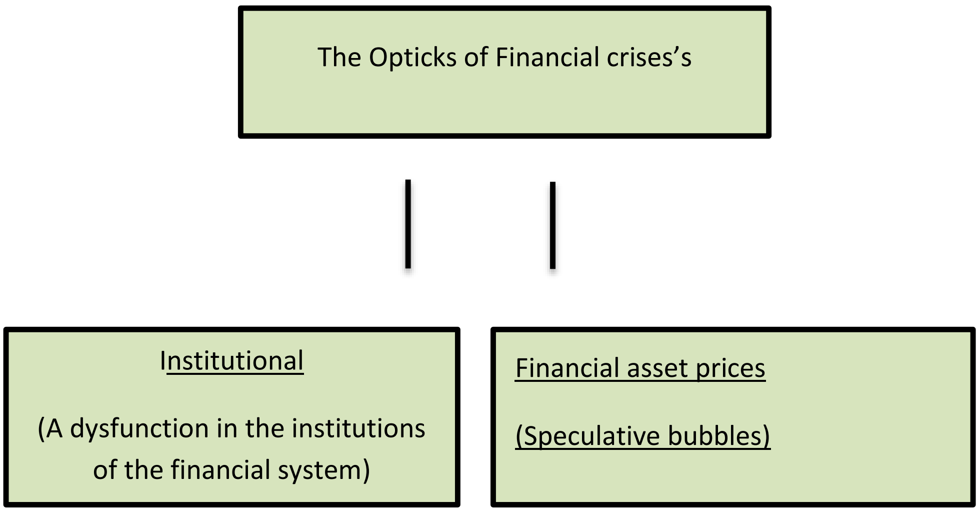
In the new capitalist environment, financial crises have developed repeatedly and regularly within the financial system. A financial crisis, manifested by an imbalance in the financial and banking system, brings together a variety of phenomena that evolve over time. This gives it a unique character, depending on the economic, financial and political circumstances of the time. As a result of this diversity, it is not easy to draw general conclusions that can be used to conceptualize and define financial crises, nor is it easy to come up with a precise, rigorous definition of what constitutes a "financial crisis". In academic circles, there is a panoply of definitions attributed to this phenomenon.

For (Portes, 1987), "a financial crisis is synonymous with a disturbance in financial markets, typically associated with falls in asset prices and insolvency among borrowers and (financial) intermediaries, and transmitted through the financial system by disrupting the ability to allocate capital in the economy. In an international financial crisis, the turmoil spills over beyond national borders, affecting the international ability to allocate capital" P. 01-02. According to the authors, the financial crisis appears to be an extreme case of financial instability they relate the financial crises to the institutional optics. In another way, they have some economist that propose a second optics to the financial crises. (Lutfalla M, 2001) says that the financial crises are related to prices of actives, drastic rises and falls in asset prices lead to financial crises.

Finally, we focus on the thesis that the financial crisis is based on the crossing of two paths. The first is linked to financial instability, which manifests itself in the abnormal functioning of financial markets at different levels. And a second, linked to the elementary definition of the notion of "crisis", which simply means a discrepancy between reality and the norm.

To sum up, all the attempts to estimate a simple definition of a financial crisis suggest that it can be defined from two angles: "institutional" and "financial asset prices".

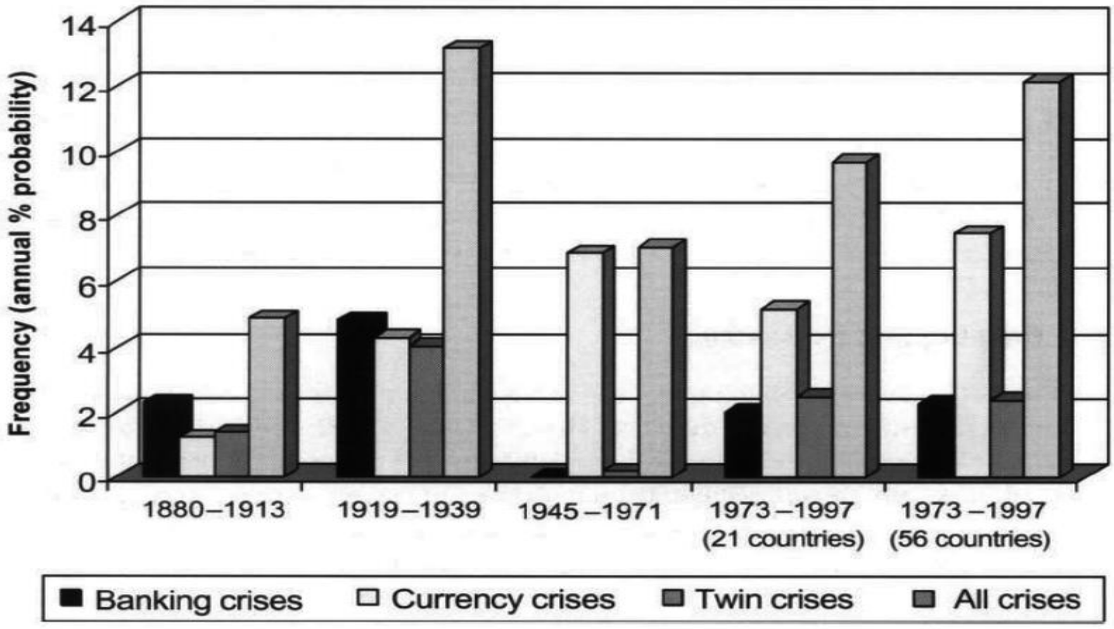
Figure 1. Optics causing the financials crise



Source : Author

To define financial crises more precisely, it's important to realize that they can take different forms, depending on the markets or institutions affected. There are currency crises, banking crises, stock market crises, real estate crises and public debt crises. It should be noted that twin crises can also be observed, essentially the combination of currency and banking crises.

Figure.2. Frequency of long-term financial crises by typology 1880-1997.



Source: (Michael Bordo, 2001)

Table 2. description of crises

Type of crise	Description
Currency crises	A currency crisis occurs when the foreign exchange market undergoes sudden variations in exchange rates, taking the form of forced devaluation or floating of the currency in the case of a fixed regime, or sharp depreciation in the case of a more flexible exchange rate regime. More generally, a currency crisis is characterized by a rapid depletion of foreign exchange reserves and/or a sharp rise in interest rates, in response to speculative attacks on local currency exchange rates by monetary authorities.
Banking crises	In general, a banking crisis occurs when the banking system is affected by sudden disturbances causing financial imbalance or bankruptcy. Furthermore, according to Laeven and Valencia (2010), a banking crisis is a situation in which there are significant signs of weakness in the banking system, explained in particular by a sharp deterioration in the value of assets held by banks and/or a massive withdrawal of deposits, which can lead to a significant increase in the number of failed

	institutions. According to Krugman (1999), the banking crisis is also explained by the "moral hazard" mechanism. Moral hazard is a phenomenon that occurs when the provision of a guarantee against a risk encourages riskier behavior. This explains why banks grant very risky loans, caused by asymmetric information.
Stock market crises/ krashs	In the absence of a rigorous definition given to the term stock market crisis, which can also be found under the name of stock market crash, we can say that far from price volatility, stock market crisis refers to a sudden, large-scale collapse in stock prices. Such a situation generally arises following the formation of a speculative bubble that eventually bursts, but can also occur in the event of a major downturn in economic activity or panic selling triggered by an extraordinary event. In the case of a speculative bubble, the krash appears as a corrective process in response to the previous rise in prices. In effect, a krash is a quasi-continuous fall in the price of stock market assets, following massive sales of securities held by investors. Stock market crashes can also occur in other markets, such as real estate, foreign exchange, commodities (hydrocarbons) and bonds (government debt).
Real estate crises	Joseph Stiglitz defines a bubble as "a state of the market in which the only reason the price is high today is that investors think the selling price will be even higher tomorrow, when fundamental factors do not seem to justify such a price". In other words, crises in the real estate sector can arise from an imbalance between supply and demand in the form of an inability of supply to cope with the scale of demand, and even the opposite is true. As a result, securities on the real estate market find themselves in a state of increased imbalance, which turns into a crisis.
A debt crises	A public or sovereign debt crisis is triggered when a country defaults on its foreign debts to non-resident creditors, even if these debts are denominated in foreign currencies.

Source: Author

II.2. the SWFs and financial stability

The economist Balin defend six major impactsof the global crisis on SWFs: « (1) large losses, spurring a move to less risky, more liquid, rebalanced portfolios and a re-evaluation of SWF oversight and management, (2) a slowdown in inflows to SWFs and the availability of SWF finance, (3) the use of SWFs to aid domestic economic stabilisation measures, (4) a move to controlling stakes by SWFs in major Western firms, and, from this, increased SWF activism on corporate boards, (5) a temporary improvement in the image of most SWFs, and (6) increased coordi- nation with institutional investors and other SWFs. » (Balin B. J., 2010) in all the points estimated, the author gives positive effects that can be attributed to improving the situation during the financial crisis.

Concerning the possible effects of SWFs on international financial markets—both positive and negative—many arguments have been made. Some contend that SWFs can help keep the world's financial markets stable. First, being long-term investors with no impending call on their assets and primarily unleveraged holdings, many analysts note that SWFs are able to ride out market downturns longer or even defy trends. Second, in order to limit any negative price implications of their transactions, large SWFs may be interested in pursuing portfolio reallocations gradually. Third, SWFs might diversify the global economy by acting as long-term investors and adding to it. Fourth, the depth and scope of markets may be improved through SWF investments estimated by (Hesse, 2010).

III. the influence of the financial crisis on behavior of sovereign wealth funds

III.1. theoretical approach.

During a financial crisis, a well-managed sovereign wealth fund can play a crucial role in providing stability. Here's how[‡]:

- Economic Stabilization: Sovereign wealth funds can act as a stabilizing force by providing a source of funds when the government faces revenue shortfalls during a financial crisis. This can help maintain public services and infrastructure projects.

[‡] This analyze is based from some academic research paper see: (Julie A Kozack, 2010) and FMI paper

- Countercyclical Investments: SWFs can invest in assets that are not directly correlated with the domestic economy, helping to offset losses in other areas. Diversification can protect the fund's value during market downturns.
- Capital Injection: In times of crisis, a government may choose to use its sovereign wealth fund to inject capital into struggling industries or financial institutions. This can prevent widespread economic collapse and support vital sectors.
- Long-Term Planning: Sovereign wealth funds are often designed with a long-term perspective, aiming to secure the economic well-being of future generations. This long-term orientation can help a country weather short-term financial storms.

However, it's important to note that the effectiveness of a sovereign wealth fund during a financial crisis depends on factors such as its size, investment strategy, transparency, and the overall economic conditions. Additionally, the fund's success is contingent on prudent management and governance to avoid misuse or corruption.

III.2. Descriptive analysis

Sovereign wealth funds (SWFs) are investment funds owned and managed by governments, typically funded by a country's reserves or surplus revenues.

- <u>The country:</u>

The notable countries with significant sovereign wealth funds include[§]:

China: China Investment Corporation (CIC) is the sovereign wealth fund of China, established in 2007. It manages a portion of China's foreign exchange reserves and invests in a wide range of assets globally.

United Arab Emirates: The Abu Dhabi Investment Authority (ADIA) is one of the world's largest sovereign wealth funds, owned by the government of Abu Dhabi. It invests

[§] We will be interested to study this descriptive data analyze for emerging country that are considered like a strong SWF.

globally across various asset classes, including equities, fixed income, real estate, infrastructure, and alternative investments.

Saudi Arabia: The Saudi Arabian Monetary Authority (SAMA) manages the Saudi Foreign Holdings, which includes the Saudi Arabian Monetary Agency Foreign Holdings (SAMA Foreign Holdings). It invests surplus oil revenues in various asset classes, including foreign securities, bonds, and equities.

Singapore: The Government of Singapore Investment Corporation (GIC) is a sovereign wealth fund established to manage Singapore's foreign reserves. It invests globally across a diversified portfolio of assets to achieve long-term financial returns.

Kuwait: The Kuwait Investment Authority (KIA) is one of the oldest sovereign wealth funds, established in 1953. It manages Kuwait's excess oil revenues and invests in various domestic and international assets.

Qatar: The Qatar Investment Authority (QIA) is the sovereign wealth fund of Qatar, established in 2005. It invests in a wide range of sectors globally, including real estate, infrastructure, technology, and financial services.

All of this country passed in general a inflation rate 1% or 3% (average of inflation rate between 1998-2019):

Figure .3: the average of inflation rate between 1998-2019.

Countries	Average
chaina	1,93
UAE	3,38
Saudi Arabia	3,33
Singapore	1,42
Kuwait	3,84
Qatar	3,37

Source: author based on WDI data.

- Periode of study :

Pre-crisis period: This period would cover the time leading up to the onset of the financial crisis. Depending on the specific crisis being studied, this could range from months to years before the crisis event. **(1996-2007)**

Crisis Period: This period would focus on the duration of the financial crisis itself, including the peak of the crisis and the immediate aftermath. It would typically cover the period during which significant market disruptions, asset price declines, and economic turmoil occurred. **(2008-2009)**

Post-Crisis Period: This period would extend beyond the immediate aftermath of the crisis and could range from months to years following the crisis event. It would encompass the recovery phase and any longer-term changes in market dynamics, investor behavior, and policy responses. **(2010-2019)**

- Variables

We will analyze, the impacts of this crisis on Monetary Stability (Inflation rate).

- Data analysis

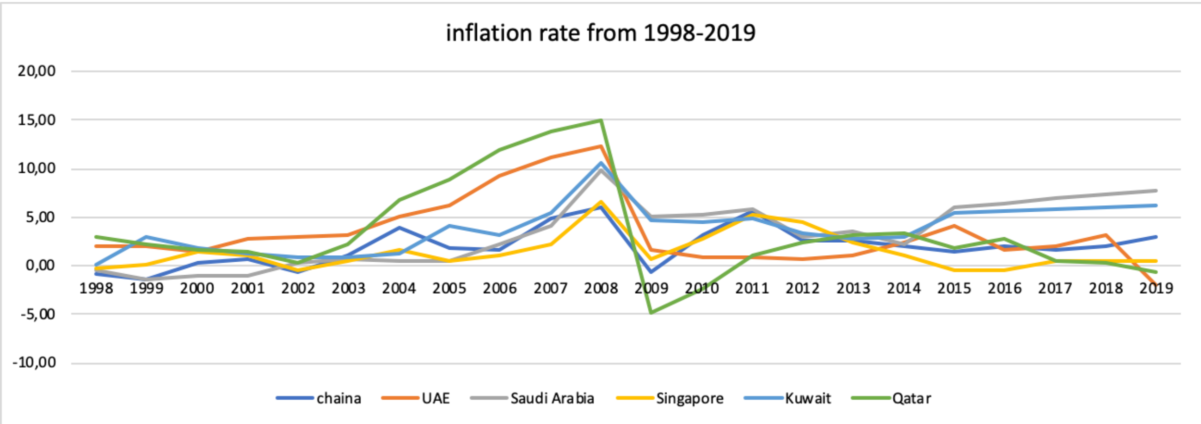
Inflation rate refers to the rate at which the general level of prices for goods and services is rising, leading to a decrease in purchasing power over time. Inflation can be influenced by various factors including monetary policy, fiscal policy, supply and demand dynamics, and external shocks such as financial crises. Figure. 4 expose the average rate of inflation rate in Pre-crisis period, Crisis Period, Post-Crisis Period.

Figure. 4: the average rate of inflation rate in the different periods of study.

countries	Pre-crisis period	Crisis Period	Post-Crisis Period
chaina	1,14	2,60	2,59
UAE	4,59	6,91	1,47
Saudi Arabia	0,43	7,46	5,42
Singapore	0,74	3,61	1,66
Kuwait	2,20	7,60	4,73
Qatar	5,20	5,09	1,21

Source: author based on WDI data.

Graphic. 1: the inflation rate from 1998-2019



author based on WDI data.

- <u>Results</u>

The behavior of SWFs during a financial crisis can have implications for inflation rates it can affect capital flows and liquidity conditions, potentially impacting inflation dynamics. Our statistical data from the countries under study informs us about the inflation rate situation during the period from 1998 to 2019. We propose two interpretations: the first is the average inflation rates during three different periods, and the second is a more generalized overview showing the trend of the rate. We notice that the average inflation rates before the crisis were generally manageable, ranging from 0.43% for Saudi Arabia to 5% for Qatar. These two Gulf countries represent the sovereign wealth fund countries and are considered founding nations as shown in the earlier passages. The period during the crisis varies from 2% for China to 7.6% for Kuwait, the first founder of sovereign funds. It is important to note that the inflation trend during this period was negative with a rate of -4%. The post-crisis period estimated between 2010 and 2019 showed a decreasing trend with rates ranging from 1.21% for Qatar to 5.42% for Saudi Arabia.

Conclusion

After the initial establishment in the early 1950s by a Gulf country, Kuwait, sovereign wealth funds have been subject to numerous studies attempting to examine their benefits, aside from their primary interest of preserving natural wealth for future generations.

Sovereign wealth funds now play a variety of roles aimed at maintaining economic stability and well-being. In conclusion, the influence of the financial crisis on the behavior of sovereign wealth funds and inflation rates is interconnected and depends on various factors including the response of SWFs, monetary policy measures, and broader economic conditions. Also, it should be cited that the performance of a sovereign wealth fund during a financial crisis hinges on various factors, including its scale, investment approach, transparency, and the prevailing economic climate. Moreover, the effectiveness of the fund relies heavily on responsible management and governance practices to prevent any potential mismanagement or corruption.

Based on a descriptive study on the matter, we estimate that the trend of inflation rates for countries with sovereign funds quickly returned to pre-crisis levels due to the various advantages attributed to sovereign funds. Our estimation is based on the following results: before the crisis, average inflation rates were generally manageable, ranging from 0.43% for Saudi Arabia to 5% for Qatar, both notable for their establishment of sovereign wealth funds. During the crisis period, inflation rates varied from 2% for China to 7.6%

for Kuwait, the pioneering nation in sovereign wealth funds. Notably, the inflation trend during this phase was negative, with an average rate of -4%.

In the post-crisis period spanning from 2010 to 2019, there was a discernible decreasing trend in inflation rates, ranging from 1.21% for Qatar to 5.42% for Saudi Arabia. These findings underscore the importance of understanding the behavior of SWFs during financial crises and their subsequent impact on inflation dynamics.

We have cited several advantages in the literature, and therefore, from our descriptive study, we can say that sovereign wealth funds benefit countries in maintaining economic stability, specifically monetary stability.

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