

# On Economic Security and the Political Economy of Neocolonialist Capitalism: The Case of France and Niger's Uranium Resources



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**Abstract** In the standard depiction of the capitalist economic system, international and domestic trade and production are supposed to be undertaken by small private agents that do not have the power to set prices. In this “idealistic” version of the capitalist system, trade among nations is made competitively, enhancing all sides’ welfare. Implied in this, both sides of the exchange feel “economically secure,” thus, the trade is “fair.” However, in reality, this may not be the case for different reasons, including neocolonialist practices of economically and technologically powerful nations. Neocolonialism leads to economic security issues for weaker nations, that make them a victim of unfair international trade, as the more powerful side of the exchange has the power to set terms. On the other hand, unfair international trade makes the capitalist system vulnerable and possibly unsustainable over the long term. Therefore, this chapter primarily discusses the relationship between economic security and neocolonialism through a case study. Further, it attempts to link these two issues to the sustainability of the capitalist system. To do these, it examines the neocolonialist threat to national security in Niger, a *de jure* independent country, which has been facing inequitable resource outflows to France for decades. Our value chain analysis demonstrates the unfair resource transfer and indicates that Niger receives only 3.2% of the ultimate value-added of the electricity that the French energy firms generate using Niger’s raw uranium. This shows that neo-colonial practices lead to critical economic security issues and have an important bearing on the future of the global capitalist economy.

**Keywords** Economic security · Neocolonialism · Future of capitalism · Nuclear energy · Uranium

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## 1 Introduction

In the classical theory of the capitalist economic system, international and domestic trade and production are supposed to be exercised by competing and small, non-price setting private agents. In this “idealistic” version of the capitalist system, trade among nations is contemplated to be undertaken competitively, earning zero economic profits, and enhancing all sides’ welfare. Implied in this, both sides of the exchange feel “economically secure,” thus, the trade is “fair.” In other words, both sides are assumed to be both politically and economically independent nations.

However, as the uneven distribution of military power jeopardizes the political security of nations, that of economic power jeopardizes their economic security. When they need to extract economic or political gains, economically more powerful nations have even threatened less powerful ones. In the notorious history of classical colonialism that peaked in the nineteenth century, powerful nations exploited the resources of less powerful nations and transferred economic wealth and resources to their mainland through war or gunboat diplomacy. As the colonized countries gained their *de jure* political independence in the twentieth century, this inequitable transfer of economic resources is supposed to have ended. However, neocolonial practices of more powerful nations ensure that the transfer of economic wealth and welfare from economically less-developed nations towards the more powerful ones remains a fact.

In this study, we contemplate this issue as a threat to the economic security of nations. We argue that neocolonialism is an evolved version of colonialism and is closely related to the capitalist economic system. All nations face economic security threats (as they are under broader national security threats). Neocolonialism, in particular, is a major threat to economic security of nations that have not achieved a level of economic development which can help them protect their economic resources taken away from them.

Globalization is a new phase in the evolution of capitalism. It accentuated both threats and opportunities to nations. However, for developing countries, threats are much more significant than opportunities. In other words, the existence of powerful neocolonialist countries threatens the economic security of poorer countries and leads to a transfer of wealth out of the latter. At the above is the nation (or, micro) level. At the international (macro) level, the economic security issues driven by neocolonialism are an important factor in the future course of the capitalist system. The imposition of economic power on weaker nations will lead to uneven unsustainable economic outcomes at the global level.

This chapter discusses these topics around a case study of Niger, a *de jure* independent country, which has been facing inequitable resource outflows to France for decades. France benefits from its economic and technological power to acquire uranium at unfair prices and convert this critical resource into a precious commodity: electricity. In the process, Niger gets a very little share of the overall economic value created from the output, although it provides the most critical production input, the uranium.

In the organization of the chapter, in Sect. 2, we first discuss the concept of economic security in relation to the concept of national security. We then discuss the relationship between colonialism, neocolonialism, and capitalism. We also set the relationship between neocolonialism and economic security under the globalization phase of the evolution of the capitalist system. In Sect. 3, we discuss neocolonialism as a threat to economic security with the experience of Niger's raw uranium exports to France. In Sect. 4, we report our value chain analysis to calculate the share of Niger in the total value received by French firms from the raw uranium acquired from Niger. Section 5 concludes the chapter and provides a discussion on the impact of neocolonialism on the course of capitalism.

## 2 Capitalism, Colonialism, and Economic Security

In the standard literature, national security policy has been conceptualized as the set of necessary decisions and actions to protect domestic core values (Bock & Berkowitz, 1966; Leffler, 1990). At the outset, national security is mainly limited to military issues; a nation would have to protect itself from foreign invasion.

We start our discussion briefly by reviewing the concept of national security which has been discussed heavily in academic and political circles since the end of World War II. The concept of national security has remained ambiguous. Baldwin (1997, p. 26) argues that this ambiguity was even abused; "No social science concept has been more abused and misused than national security. . . . Careless use and abuse of the concept may have already rendered it useless for everyone but the politicians." According to Buzan (2007), this was on purpose in order to maximize the power of the "military and political elite."

But we need a working definition of national security to further our discussion on economic security. According to a basic classical definition, national security is "the ability of a nation to protect its internal values from external threats" (Sills, 1968; Romm, 1993). Lippmann (1943) argues that "a nation has security when it does not have to sacrifice its legitimate interests to avoid war and is able if challenged to maintain them by war." In parallel, it is the set of necessary decisions and actions to protect domestic core values (Bock & Berkowitz, 1966; Leffler, 1990). At the outset, national security was considered to have largely been limited to military issues; a nation would have to protect itself from foreign invasion.

A related concept discussed in the literature was "national power." The literature has various angles in discussing this matter. An economist, Hirschman (1945), states that mercantilism was a policy aiming to increase national economic power through the accumulation of wealth (primarily gold). Further, "national power at the expense of rival states, on the one hand, and increased wealth, on the other hand, were brought into complete harmony by the doctrine of the balance of payments which led the mercantilists to assume that in its economic relations a nation can increase its wealth only by reducing that of the other nations" (Hirschman, 1945, p. 4). Balance of payment surplus would mean increased inflow and accumulation of species which

was seen to be “the” source of national power (see, for example, Thomas Mun’s (1989) seventeenth Century Treatise).

More recently, the SARS-CoV-2 pandemic reminded us that biological risks might pose significant security risks whether the source is natural or artificial (adversarial nation developing biological agents). There has been discussion on whether the Covid-19 was originally developed as a bioweapon (Molano, 2020; Kortepeter, 2020). Over time, domestic security was integrated more strongly into the debate. In the US, domestic security was more and more seen as part of national security, especially after the 2001 terrorist attacks on the World Trade Center in New York (Newmann, 2002).

More importantly, new threats were perceived to challenge the broader concept of national security, such as drug trafficking, climate change, and growing dependence on imported oil (Romm, 1993). Romm claims that the US’s declining economic competitiveness was a national security issue. Thus, along with Hirschman, Romm’s conceptualization of national security contains economic security issues.

### 3 Discussion on the Concept of Economic Security

More recently, discussions of economics and national security have further converged: military vs. economic war. For example, on October 15, 2019, then US President Donald Trump threatened to destroy the Turkish economy (Burns, 2019) as diplomatic relations between the two countries soured. In Turkey, Trump’s statement was recognized as a threat of launching an economic war if Turkey does not comply with the US’s demands. Thus, it was an issue of “economic security.” Further, in response to the Russo-Ukrainian military conflict, European countries and the US were defined in an economic war (see for example, Varadarajan, 2022).

The foregoing discussion leads one to define national security policy to cover a wide range of threats, including military threats (conventional, chemical, and nuclear), terrorism, artificial or natural biological threats, climate issues, social issues (e.g., drugs), and economic threats. The last one, economic security, appears as a critical part of the overall national security concept. However, economic threats and economic security have not so far received a significant attention (Baldwin & Kapstein, 2020; Illarionov, 1999). Losman (2001), for instance, argues that economic considerations should not be part of resource allocation for national security considerations.

As for national security, economic security is a slippery concept (Cable, 1995, p. 307). Economic security in the traditional view was defined as security from manipulation by other governments that wielded these instruments; insecurity was thus vulnerability to other states (Kahler, 2004, p. 486). On the other hand, globalization, which led to intensified movements of capital, labor and technology, and ideas, has made economic security even more important. This is because, as globalization proceeds, countries become more and more prone to external economic shocks. As Kahler (2004, p. 485) suggests “globalization has produced a redefinition

of economic security in light of the risks posed by cross-border networks of non-state actors and by the economic volatility of the new global environment.” Further, Kahler (2004) limits new definitions of economic security to a narrowband; first “economic (largely financial) shocks that can undermine economic growth, increase inequality and threaten political stability” and second illicit financial flows emanating from terrorism, crime, or pollution.

Based on the foregoing discussion, for our purposes, a good working definition of economic security at the national level would refer to the nation’s ability to independently make its resource allocation decisions at market prices, which would cover the ability to export domestic resources at market prices. Relatedly, Investopedia (2022) argues that “economic security refers to a country’s ability to pursue its own developmental goals, and it is often explicitly linked to national security. This encompasses broad concerns about the balance of trade, impacts of foreign investments on national markets, and private-public partnerships.” According to Horrigan et al. (2008), “one general definition of economic security might be the ability of a nation-state to obtain through production or fair trade those goods and services it needs in order to preserve its national security.” Studies of economic security policy would focus, therefore, on how a state uses economic mechanisms to maintain territorial integrity, meet citizen demands for goods and services, preserve political and cultural independence, and achieve freedom from the threat of foreign military assault.

## 4 Political Independence and Colonialism

This takes us to the concept of political independence, which is closely linked to national security and territorial integrity. The notion of political independence covers the non-material elements of state sovereignty and power, namely the freedom of political decision-making and the direction of state organs in respect of the internal and international affairs of a state (Rozakis, 1987). The United Nations Charter, Art. 2(4) reads “Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or any other manner inconsistent with the Purposes of the United Nations.”

In this sense, colonialism has, historically, been a classical breach of independence of colonized nations’ political security, but it had economic reasons as its *raison d’être*. The colonizing nation had the objective of extracting the colonized nation’s economic resources and transferring them to its mainland. Colonization was mostly a military phenomenon; the colonizer threatened the colonized nation by military power to overtake the latter’s political and economic authorities.

Thus, colonialism led to the *de jure* loss of political independence together with the impoverishment of the colonized peoples as the colonizers attempted to change the economic and social order to one that generated profits for the mainland. Formerly self-sufficient and thriving agricultural regions witnessed famines, and economic collapse as these territories became plantations of cash crops and products

under colonizers' commercial strategies who repatriated all the proceeds while relegating indigenous people to slave-workers (see Rodney, 2018; Saravanan, 2008; Gueye, 2018; Bell, 2021; Nally, 2008 among others).

In the twentieth century, all colonized nations gained their *de jure* independence from colonizers. But does this mean that the colonial economic exploitation era is now over? For thinkers such as Sartre, colonization is a continuum over time.<sup>1</sup> In other words, he does not distinguish between “old” colonialism and the “new” (neo) colonialism. However, the two have a major difference; neocolonialism is practiced in politically independent countries, while the “old” colonialism was mostly practiced in countries that lost their political independence.

#### 4.1 *The Advent of the Capitalist Economy*

How are colonialism and capitalism related? Let us first briefly look at the advent of the capitalist economy. In the Islamic world, merchant capitalism emerged as early in the seventh century (Heck, 2008). Muslim merchants developed the tools of incorporation, which allowed pooling of capital and risks. These forms were subsequently transmitted to Europe (Udovitch, 2011). In Europe, the emergence of merchant capitalism can most reasonably be attributed to around the eleventh century; circa a century after the start of the European Commercial Revolution, which Lopez (1976) places somewhere between the tenth and fourteenth centuries. European merchant capitalism gave way to industrial capitalism after the industrial revolution in the second half of the eighteenth century.

On the other hand, it can be argued that European financial capitalism gained impetus after (i) the invention of the joint-stock company in England and the United Provinces (Netherlands) at the beginning of the seventeenth century, and (ii) the development of Dutch and English capital markets in the seventeenth century (Neal, 1991). So rather than in the traditional Marxist framework, it can be argued that financial capitalism is not a phase that industrial capitalism gave way to. In fact, as Veblen (1904) states, the two are quite different; in industrial capitalism, accumulation is made on manufacturing activity while in financial capitalism it is made on the fruits of the existing financial capital. Braudel (1984) claims that financial capitalism had emerged in Genoa in the sixteenth century and the United Provinces in the seventeenth and eighteenth centuries both from commercial capitalism that it developed.

During the nineteenth century, thus, financial and industrial capitalism developed together though industrial capitalism were much more dominant. No doubt, the

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<sup>1</sup>Sartre (1964) criticized French attack and massacres in Algeria, defining it as colonialism attempt without distinguishing it as neocolonialism. For Sartre, colonialism is a time-proof continuum. He argued for France to disengage from its colonial ambitions which was formed by Louis XIV.

twentieth century witnessed a dramatic rise and prevalence of financial capitalism over industrial and merchant capitalism forms.

## 4.2 *Neocolonialism, Capitalism, and Economic Security*

A useful definition of neocolonialism is “the current attempts (actual or alleged) of the developed countries to dominate and control the ‘emerging’ states (as well as all other economically underdeveloped countries), chiefly through economic rather than military or purely political means” (Fatouros, 1965, pp. 714–715). For Sartre, the (neo-) colonialism is a form of capitalist exploitation. This is also the view of Marxist literature (Brewer, 2002). Marx underlined that the rise of the industrial capitalism was enabled by “primitive accumulation” [grabbing lands, natural resources (gold, silver, agricultural produce) and property of the colonized nation by the powerful capitalist nation] and was closely associated with colonization (McIntyre, 2011) and imperialism. Likewise, for Lenin (1917), imperialism is the “Highest Stage of Capitalism.”

In the nineteenth century, Marx identified colonial conquest as a capitalist strategy (Naved, 2008, p. 33): “the discovery of gold and silver in America, the extirpation, enslavement, and entombment in mines of an indigenous population of that continent, the beginnings of the conquest and plunder of India, and the conversion of Africa into a preserve of the commercial hunting of black skins, are all things which characterize the dawn of the era of capitalist production. These idyllic proceedings are the chief moments of primitive accumulation” (Marx, 2019, Chap. 31).

Clearly, there is a close association between capitalism and (neo) colonialism. In terms of causality, it is reasonable to agree with McIntyre (2011) who argues that European colonization has preceded capitalism by centuries and thus, capitalism cannot have caused imperialism. According to Nkrumah (1965), “the essence of neocolonialism is that the State which is subject to it is, in theory, independent and has all the outward trappings of international sovereignty. In reality, its economic system and thus its political policy is directed from outside.” For him, “neocolonialism of today represents imperialism in its final and perhaps its most dangerous stage.”

The above discussion suggests that neocolonialism is an evolved version of colonialism and is closely related to the capitalist economic system. In the case of colonialism, the colonialists breached the political and economic independence of the militarily weaker nation. In the case of neocolonialism, on the other hand, while the *de jure* political independence of the weaker nation is preserved, its economic independence is breached. In other words, neocolonialism is a threat to economic security of economically less-developed nations. Colonialism was more primitive and explicit; neocolonialism is more refined and implicit. In the former, the powerful colonialist takes over the political administration of the weaker nation and subsequently extracts its wealth to the motherland. In the latter, the colonized nation which is *de jure* politically independent loses its resources to the colonizer at submarket

prices. Thus, neocolonialism leads to wealth and welfare transfer from less-developed countries to developed countries.

All nations face economic security threats (as they are under broader national security threats). Neocolonialism, in particular, is a major threat to economic security of nations that have not achieved a level of economic development which can help them protect their economic resources taken away from them.

Globalization is a new phase in the evolution of capitalism. It accentuated both the threats and opportunities to nations. For developing countries, the threats are much more significant than opportunities. For example, in a globalized world, the natural resources of the developing countries are easily accessed by the more powerful nations. The latter needs to import natural resources from the developing countries. If fair trade were assured, globalization's offerings would thus be quite beneficial to developing countries. But their underdeveloped state denies them the opportunity to receive full economic compensation.

In other words, the existence of powerful neocolonialist countries threatens the economic security of poorer countries and leads to a transfer of wealth out of the latter. However, economic security (as in the case of national security) and neocolonialism are vaguely defined. A better understanding of the concept and its consequences can, thus, be achieved by using case studies.

### ***4.3 The Neocolonialism and the Future of Capitalism***

In the nineteenth century, Marx (2019) underlined the dynamic impact of class struggle in shaping the future of the industrializing European societies. His approach was deterministic in that he believed that the then existing class struggle would lead to the socialist revolution and toppling of capitalism. Note that, we used the verb "believe" to emphasize that Marx did not have a scientific approach as suggested by Popper (2020).

In a globalized capitalist economy, it may be argued that a similar "class" struggle exists between poorer countries and the richer ones that take advantage of their economic power. This could prove a significant dynamic in shaping the future of the world economy and society in the coming decades. The poorer nations will not be able to be patient in losing their resources at prices significantly below opportunity costs.

Thus, there is a close association between the future of neocolonialism and that of capitalism. Unlike in Marxism, it is not reasonable and scientifically acceptable to be deterministic on the neocolonialist trigger of the collapse of the capitalist economic system. However, it is reasonable to expect that the continuation of uneven economic resource transfers will prove to be a major risk to the stability of the capitalist economies.



## **5 Neocolonialism as a Threat to Economic Security and a Tool of Wealth Transfer: The Case of Niger and France**

This section examines the French exploitation of uranium reserves in Niger in the post-colonial era. It is a case study of the neocolonialist threat to Niger's economic security. Colonization is a historical example of a security breach of militarily weaker nations. British and French Empires, among others, colonized a wide range of countries on almost every continent (Harshe, 1980; Laycock, 2012). As a result of the international evolution of capitalism, such colonialist forces created a system of resource exploitation and wealth transfer from colonized nations to their motherland. This led to a systematic impoverishment of those nations as well as enormous amounts of human loss.

In the contemporary world, many of the colonized nations in Africa, Latin America, and Asia have nominally gained their political independence. However, a newer version of politico-economic dominance ensures continued wealth transfer from weaker nations to the stronger Western economies. A good example is Niger, a West African country. Niger's vast uranium resources have been embezzled by a state-owned French company, posing a significant economic security issue. Niger is a low-income country with per capita GDP \$550 in 2020. Its economy is primarily rural and agriculture based. Niger also has several minerals and fuels, including uranium, in which Niger has one of the world's largest reserves.

### ***5.1 Background: Niger's History and Economy***

#### **5.1.1 The Historical Context**

Niger, dubbed as "the frying pan of the world," gained its independence from France in 1960. The Niger River is the origin of the country's name. Niger is the largest country in West Africa and borders seven countries, including Libya, Chad, Nigeria, Benin, Senegal, Mali, and Algeria.

The economy of this Sub-Saharan country is based on subsistence agriculture, livestock, and one of the world's most extensive uranium resources. Niger is one of the poorest countries in the world, despite having a wealth of valuable natural resources.

Present-day Niger originated from the nomadic peoples of the Northern Sub-Saharan region and the settled farmers of the South. When European colonizers arrived in the nineteenth century, the region assembled disparate local kingdoms. The first European explorers, particularly the British and Germans, explored the area in the nineteenth century, looking for the mouth of the Niger River. After agreeing to share the Niger River with the British, France became dominant and created a colonial administration in 1922. Then, in 1960, the country obtained its independence from France, and it was ruled by the military until the beginning of the 1990s (Central Intelligence Agency, 2021).

In the 1990s, Niger faced a painful conflict with the nomadic Tuareg in the north. Several Tuareg insurgent groups emerged, demanding greater autonomy for their territory, and supporting the old but endangered Tuareg culture. In 1995, the government reached a deal with one of the Tuareg tribes on a peace treaty and amnesty. In 1997, the last of them agreed to the conditions of the agreement.

According to the reports, more than 60 thousand Malian migrants fled to Niger after the terrorist attacks. In addition, the UNHCR reported 241 thousand refugees and 300 thousand displaced people (World Bank, 2021). Niger has been troubled by ecological disasters, economic crises, and political instability since its independence in 1960. More recently, a health challenge due to the Covid-19 pandemic deepens country's weaknesses.

The official language is French, and there are eight other languages recognized as national languages (Index Mundi, 2021). The ethnic composition is made up of Hausa 53.1%, Zarma/Songhai 21.2%, Tuareg 11%, Fulani (Peuhl) 6.5%, Kanuri 5.9%, Gurma 0.8%, Arab 0.4%, Tubu 0.4%, other/unavailable 0.9% (Central Intelligence Agency, 2021).

With a 3.8% growth rate in 2021, the country's current population is 26 million. Following South Sudan and Burundi, Niger has the third fastest-growing population. Since the independence of Niger, the country has had three military regimes, seven republics, and two Tuareg rebellions in this composite structure.

The country has one of Western Africa's lowest adult literacy rates. Approximately 70% of the population in Niger is under the age of 25. Only 16.8% of the population lives in urban areas. The infant mortality rate was ranked fourth in the world. Other key issues confronting the nation include inequity in educational chances for women, early marriage, and childbirth. In addition, both the health and welfare of the people are at an all-time low level.

### 5.1.2 Niger's Economy

The country is the second least developed country globally, and in terms of income classification, it is in the low-income economy category. The country is ranked last in the world on Human Development Index (African Development Bank, 2021). In 2019, Niger was ranked as the 132nd economy in the world in terms of GDP (current USD), 160th in total exports, 167th in total imports, 179th in terms of GDP per capita (current USD). According to the World Bank's "Doing Business" report, Niger ranks 176th among 189 countries globally (OECD, 2019a).

In 2020, the economy grew by 3.6% (13.68 billion USD), accounting for 0.01% of the global GDP. Annual GDP growth in 2021 was 5.5% (approximately 15.6 billion USD), and it is expected to reach 6.2% in 2022.

In 2020, approximately more than ten million people (42.9% of the total population) lived in extreme poverty. Recent gains in combatting poverty are in danger following a 0.2% reduction in per capita income in 2020. On the other hand, the positive economic outlook is predicted to help reduce poverty from 41.2% in 2020 to 37% in 2023. Agricultural products represent 40% of the GDP, which is the

**Table 1** Uranium resources by country (2019)

Country	tU	% of world
Australia	1,692,700	%27.5
Kazakhstan	906,800	%14.9
Canada	564,900	%9.2
Russia	486,000	%7.9
Namibia	448,300	%7.3
South Africa	320,900	%5.2
Brazil	276,800	%4.5
Niger	276,400	%4.5
China	248,900	%4.0
Mongolia	143,500	%2.3
Uzbekistan	132,300	%2.2
Ukraine	108,700	%1.8
Botswana	87,200	%1.4
Tanzania	58,200	%0.9
Jordan	52,500	%0.8
US	47,900	%0.8
Other	295,800	%4.8
<b>World Total</b>	<b>6,147,800</b>	<b>%100</b>

Source: World Nuclear Association (2021)

livelihood of more than 80% of the population. The GDP per capita declined from \$563 (2019) to \$550 in 2020 (World Bank, 2021).

#### 5.1.2.1 Niger's Uranium Reserves

The world uranium map shows that Australia still dominates the world's uranium resources, accounting for 27.5%. According to the data in 2019, the total world uranium resources are 6,147,800 tU. In this view, Niger ranked eighth with 276,400 tU, which equals 4.5% (see Table 1). As cumulative uranium production, Niger produced 152,352 tU between 1945 and 2020. Global uranium mine production decreased by approximately 11% in 2017 and 2018, while it increased by 1% in 2019. Due to the increasingly stagnant uranium market, major producing countries like Canada and Kazakhstan have reduced their total output. In addition, global pandemic in the early 2020s significantly exacerbated these limits (Nuclear Energy Agency, 2020). Kazakhstan, Canada, and Australia account for more than half of the world's uranium resources. The total amount of the mined uranium resources in the world to date is 3,012,483 tU (seen Table 2).

The global total uranium production in 2020 was 47,731 tU, corresponding to 74% of the world's demand. Kazakhstan produced the largest amount of uranium (40.8% of the global supply). Niger's production peaked at 4116 tU in 2015, then continuously dropped. It produced 2991 tU (6.3%) in 2020, ranking sixth place globally (Table 3) (Nuclear Energy Agency, 2020).

**Table 2** Cumulative production on tU (1945–2020)

Country	tU
Kazakhstan/Uzbekistan	542,949
Canada	542,431
USA	374,864
Australia	232,492
Germany	217,161
Russia	176,626
South Africa	165,293
Niger	152,352
Namibia	146,461
Czech Republic	111,214
France	77,015
Ukraine	69,676
China	55,914
Others	148,035
<b>Total</b>	<b>3,012,483</b>

Source: World Nuclear Association(2021)

**Table 3** Annual Uranium Production (2020)

Country	tU	% of the world
Kazakhstan	19,477	40.8
Australia	6203	13.0
Namibia	5413	11.3
Canada	3885	8.1
Uzbekistan	3500	7.3
Niger	2991	6.3
Russia	2846	5.9
China	1885	3.9
Ukraine	744	1.5
India	400	0.8
South Africa	250	0.5
Iran	71	0.2
Pakistan	45	0.1
Brazil	15	0.03
USA	6	0.01
<b>World Total</b>	<b>47,731 tU</b>	<b>% 100</b>

Source: Nuclear Energy Agency (2020)

### 5.1.2.2 Niger's International Trade

Niger had a total export of \$1.24 billion and total imports of \$3.02 billion, leading to a negative trade balance of \$1.78 billion in 2020. In 2020, Niger's total uranium exports to the world were worth \$285 million (4315 tU). In this context, France is Niger's largest export and import market. Niger's total exports to France were valued at \$212 million with 34% of this amount from uranium. In comparison,

Niger's imports from France were valued at \$675 million, 22% of its total imports (as seen in Table 4).

As mentioned above, France holds most of the total exported uranium by Niger in 2020. Uranium ores and concentrates, vehicles other than railway-tramway, mineral fuels, oils, distillation products, machinery, nuclear reactors, boilers, pearls, precious stones, metals, and coins are among Niger's top five exported commodities to France (see Table 5).

Niger's total exports of uranium to France amounted to \$1.15 billion. However, Niger's uranium exports have been on a declining trend as seen in Fig. 1. The reason for this is that France is diversifying its uranium sources away from Niger. Currently, the other suppliers for France are Australia, Canada, and Kazakhstan. Four countries represent 80–90% of the uranium used in France (Tertrais, 2014). Note also that all uranium extraction in Niger is made by French firms.

## 6 French Nuclear Energy Policy

Shaped in the 1970s, the French energy policy is based on two pillars (Breteau, 2022). First is the keen interest in achieving energy security. To achieve this, French authorities accord utmost importance to nuclear energy. Having achieved this goal,

**Table 4** Niger's exports and imports (2020)

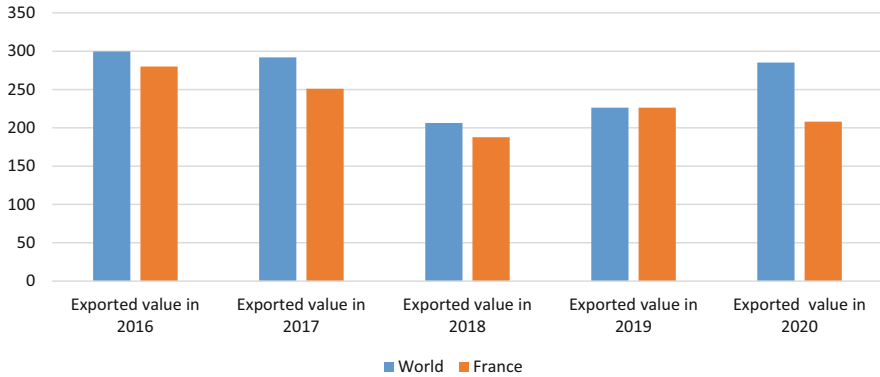
Total uranium exported in 2020				Total share of France in exports		Total share of France in imports	
Country	Value in %	Value in million \$	tU	Value in million \$	Value in %	Value in million \$	Value in %
France	73.5	208.1	3.173	212.4	%34	675.32 Million	%22
Canada	21.3	54.7	921	...	...	...	...
Spain	2.6	11.7	113	...	...	...	...
Japan	2.0	8.9	86	...	...	...	...
Benin	0.5	1.549	22	...	...	...	...
<b>Total</b>	<b>%100</b>	<b>285.1</b>	<b>4.315</b>	...	...	...	...

Source: Trading Economics (2022), International Trade Centre (2022), Republic of Turkey Ministry of Trade (2022) and Nuclear Energy Agency (2020)

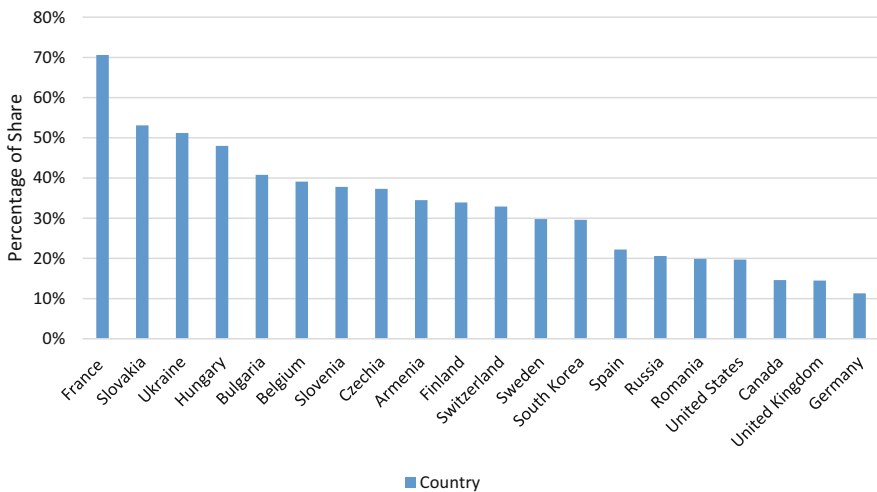
**Table 5** Niger's Top 5 commodities exported to France (2020)

Commodity	Value in million \$
Uranium ores and concentrates	208.1
Vehicles other than railways, tramways	1.71
Mineral fuels, oils, distillation products	1.28
Machinery, nuclear reactors, boilers	0.95
Pearls, precious stones, metals, coins	0.35

Source: United Nations Comtrade Database (2022) and OECD (2019b)



**Fig. 1** Niger's uranium exports to France and the World (2016–2020). Source: Trade Map (2022) and UN Comtrade Database (2022)



**Fig. 2** Share of nuclear power in total energy production (2020). Source: IAEA PRIS Database (2022)

France is the highest in the world, with over 70% in terms of the share of nuclear power in total energy production (see Fig. 2) (World Nuclear Association, 2022). France's second important energy policy is to become an energy exporter, while it was a net importer in the 1970s. Uranium and nuclear energy is the most crucial factor behind this transformation and economic gain. France has now become the world's largest net electricity exporter, and electricity is its fourth-largest export item. Italy and the UK are amongst France's top electricity export markets (World Nuclear Association, 2022). Over the last decade, France has exported up to 70 TWh net each year.

**Table 6** Areva and EDF in French Nuclear Energy Production (2012)

	Unit	2012
EDF Sales	Billion Euros	72.7
EDF EBITDA	Billion Euros	16.1
EDF Net Income	Billion Euros	4.2
Share of Areva in EDF electricity sold	%	40–50%
Share of Niger as uranium supplier to Areva	%	40–50%

Source: Authors' calculations based on the data obtained from EDF (2013) and Tertrais (2014)

By 2012, uranium delivered by Areva represented at least 60% of the total needs of EDF. However, with the shift from the EURODIF enriching plant to the new George Besse II enrichment facility, Areva started to supply only around 40% of EDF's uranium acquisitions. Out of the total, 40–50% of Areva's uranium came from Niger by 2012 as seen in Table 6. Thus, in 2012, Nigerien uranium was the source of 20% of EDF's electricity production, according to Tertrais (2014).

Furthermore, Tertrais (2014) argued that “It is true that the total quantity of natural uranium imported by France comes first mostly from Niger (more than 5 tons in 2012) followed by Kazakhstan, Australia, Uzbekistan, and Namibia. But that is because Niger remains an important part of Areva's business as a global company today. Because France also exports uranium (raw and processed), it often imports much more than just the 8 tons a year that are needed for EDF power plants. Thus, from 2006 to 2012, total French imports have ranged from 8 to 14 tons a year.”

## ***6.1 French Energy Giant Areva and Its Neocolonialist Operations in Niger***

Areva is a multinational corporation based in France and involved in all aspects of the uranium fuel cycle, specializing in nuclear power and renewable energy. The main activities of Areva are uranium mining, enrichment, conversion, fuel recycling, dismantling and engineering, and waste management. It is in the top three companies in terms of mining globally (World Nuclear Association, 2022).

Areva is also involved in military technologies, such as designing the nuclear reactor for the French Barracuda submarine class. The company has a presence in over 30 countries through its subsidiaries and employs more than 19,000 people worldwide (Orano, 2021). Before its corporate restructuring in 2016, Areva was majority-owned by the French state. The structure stands with the French Commission for Alternative Energies and Atomic Energy at 54.4%, Banque Publique d'Investissement at 3.3%, and Agence des Participations de l'Etat at 28.8%. Électricité de France (EDF), where the French state owns a majority stake. The second-largest shareholder after the French state, Kuwait Investment Authority holds 4.8% (European Commission, 2018).

The 2008 financial crisis, the 2011 Fukushima accident, delays in the Olkiluoto-3 nuclear project in Finland, risky acquisitions, corruption, and competition with French energy provider EDF contributed to Areva's rebranding. In 2018, when Areva was renamed Orano, the critics increased due to the company's past scandals. For example, Ali Idrissa, ROTAB Coordinator, stated that "Altering the name should not clear the company and its accomplices from past scandals. The people responsible for the embezzlement must be brought to account and, if necessary, brought to justice" (Tournons La Page, 2020).

Areva's (Now Orano) uranium reserves exist in Niger, Canada, Australia, and Kazakhstan. The company's activities in Niger contain three concessions near Arlit that are run as joint ventures with the Nigerien government's minor partnership and smaller foreign investors. Areva and its subcontractors developed Arlit in the middle of the Sahara Desert to facilitate these operations, and it has a considerable expatriate population. These ventures are SOMAIR and COMINAK.

In addition, Areva had previously obtained a concession in nearby IMOURAREN to augment their production in Niger. However, this project is not activated due to the low-uranium prices. Areva is also under pressure from opening over 100 uranium mining concessions in Niger, primarily to Canadian and Chinese companies. It is also exposed to intense criticism in countries where it operates, especially in Niger. This increasing tension is because of acting as a neocolonialist country and cartel of uranium mines.

Areva remarks that they attach great importance to the environment while carrying out these activities. Moreover, the company claims that its existence significantly contributes to Niger's development. To support this, it is stated that the local people are directly employed in the mines, so the income received is the most significant foreign exchange source for Niger (Orano, 2021). Additionally, it is noted that Areva made a large amount of aid due to the famine in Niger in 2005. However, this aid constituted only 0.05% of Areva's annual profit at that time (Oxfam International, 2014).

In 2008, The Public Eye reported that Areva's work in Niger took place under horrendous conditions and caused radioactive pollution, resulting in the death of many employees. In this vein, the human rights activist group declared Areva as the worst company globally.

EDF, a company that operates as French nuclear power reactors, has made agreements to procure natural uranium from Australia, Canada, Niger, and Kazakhstan: these agreements satisfy about 90% of the demand for 58 French power plants (Tertrais, 2014). In recent years, Areva has provided about 60% of EDF's uranium demand, and 50% of Areva's Uranium is sourced from its mines in Niger.

Recently, Areva's closed mines in the Central African Republic (2012) and one of its mines in Niger (2021) can perhaps be taken as evidence of France's declining influence and control in Africa. However, France's AREVA remains a giant company in the uranium industry. Further, Areva has Africa's largest and the world's second-largest uranium deposit project, "Imouraren" in Niger. Hence, these rumors can also be considered as a communication tool by Areva to negotiate better terms with the government of Niger. Due to the low-market uranium prices and the



**Table 7** Orano (2021)

Main activity	Contributing revenue	Employees	Mining sites	Uranium production (2020)
Mining	€1.079 billion	3445	Four mining sites in three countries. (Niger, Canada, Kazakhstan)	6529 tU (the top three of the global market)

Source: Orano (2021)

complex international political conditions, it can be assumed that Areva, in other words, France, may be reanalyzing its overall strategy in Africa.

With 6529 tU produced globally, Areva, known as Orano, is one of the world's biggest uranium producers. In 2020, SOMAIR produced 1879 tU COMINAK produced 1112 tU Cigar Lake produced 3878 tU, and KATCO produced 2833 tU. The company's uranium production locations are in Canada, Niger, and Kazakhstan (see Table 7).

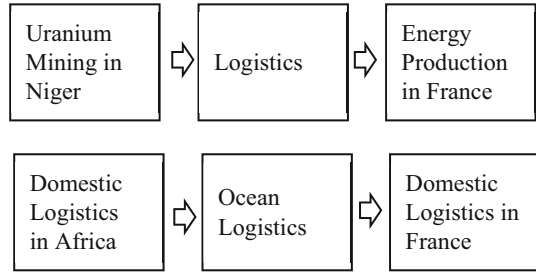
Orano, with its subsidiaries SOMAIR and COMINAK, has extracted 140,000 tU in Niger since its mining activities began. Orano produces enough uranium each year to meet the demands of a country like Spain in terms of power. From the beginning of March 2020, many uranium producers were obliged to reduce, or even interrupt, the activity of their mines due to the Covid-19 pandemic. This drop in uranium supply affected the uranium spot price, which significantly reached \$34/lb. at the end of May. During the summer, the improved health situation and the introduction of protective measures by producers allowed the gradual return to regular activity in the fall. The uranium spot price has stabilized around \$30/lb. at the end of 2020. The long-term indicator changed slightly during the Covid-19 pandemic to stabilize at \$33 at the end of 2020 (compared to \$32/lb. at the end of 2019). According to the World Nuclear Association (2022), future projects illustrate that the uranium market is expected to grow, with demand in 2025 predicted to be 17% higher than in 2015.

## 6.2 *The Value of Areva and Niger's Uranium to France*

France produces 80% of its electricity consumption from nuclear power plants. However, its local resources are not available to meet the current uranium demand, and it is very costly to extract the extant uranium. In this context, France's need for uranium has made neocolonialism a necessity. Therefore, Paris (especially in the period after the World War II) turned the import of uranium from the French colonies into a suitable form. Furthermore, the oil crisis in 1973 led to power plant projects and thus increased demand for uranium.

In 1976, the French government formed the General Company for Nuclear Materials (COGEMA) in the Atomic Energy Commission's (CEA) production department. Since the cost of domestic production was higher than foreign

**Fig. 3** French nuclear energy value chain and logistics value chain



**Table 8** Value of Niger's uranium exports

	2021	1945–2021
<i>Niger's natural uranium exports to</i>		
France (tU) 1/	3173	
The world (tU) 2/		152,352
<i>Electricity produced by Niger's uranium exports to (million kWh) 3/</i>		
France (million kWh)	50,439	
The world (million kWh)		2,421,812
<i>Value of electricity produced by Niger's uranium (until 2020) 4/</i>		
in France (billion \$)	8.9	319
in the world (billion \$)		434
<i>Niger's export value of raw uranium (million \$) 5/</i>		
Share Niger received from the total value created in France by Niger's raw uranium	3.2%	...

production at that time, COGEMA established Areva in 1983 and 2001 in a two-stage process and incorporated it with other public institutions.

87% of the uranium mined in the Arlit region of the capital Niamey belongs to the French nuclear energy company Areva, which has held the operating rights of uranium in Niger for almost 47 years. The uranium mined here provides nearly a third of France's electrical needs. Therefore, the French government is almost entirely reliant on Niger for the uranium that runs its massive nuclear power system.

Based on the value chain depicted below in Fig. 3, we made a simple analysis of the value generated by France (through the electricity produced by Areva/EDF) and the value received by Niger through exports of raw uranium. In our analysis (as seen in Table 2), Niger exported 152,352 tU of raw uranium globally from 1945 to 2020. Most of these exports were made to France, particularly in earlier years. In 2020, Niger's exports to France amounted to 3173 tU (as seen in Table 4); this represented 73.5% of Niger's total exports of 4315 tU.

As 2021 figures were not available, we inferred they remained the same in 2021. We calculated the electricity equivalent of Niger's raw uranium exports when converted to first U235 isotope and then to electrical energy using theoretical conversion figures. In particular, nuclear fission of 1 kg of U235 yields ca. 19 billion

kcal (equivalent to 2700 tU of coal) and a conversion rate of 0.001162 kWh per kcal. For calculating the value of energy produced by Niger's raw uranium, we used mid-2021 market prices per kWh of electricity in France. We assumed half of the energy produced is sold to households and the rest to businesses.

The results of the exercise presented in Table 8 are as follows. At end-user prices (market prices in France), the value of electricity produced by Niger's raw uranium exports to France is calculated as \$8.9 billion in France in 2020 (and assumable in 2021), while the country's raw uranium exports (to France) were only \$208.1 million in the same year. Between 1945 and 2021, we calculated the value of electricity produced by Niger's raw uranium exports to France as a massive \$319 billion and \$431 billion to the world. These calculations show that the share received by Niger from the total value creation is only 3.2%. This share does not differ much from other years. So, it can be safely assumed that this is also the share in the cumulative value chain since 1945.

## 7 Conclusion

Colonialism, along with imperialism, has been an outright breach of the political independence of militarily weaker countries. The colonizers annexed those weaker countries into their colonial empires. A major outcome of the process was a significant wealth transfer from poorer nations to the mainland of the colonial empires.

At the end of the nineteenth century and the beginning of the twentieth century, the colonized nations gained their *de jure* political independence. However, they have not been able to gain economic independence. In the current stage of the evolution of the global capitalist system, neocolonialism is a reality that threatens economically less powerful nations, as demonstrated by Niger's raw uranium transactions with France. Our value chain analysis results indicate that Niger has received only 3.2% of the ultimate value-added electricity that the French energy firms have generated in 2020 using Niger's raw uranium.

France has been able to impose this neocolonialist form of resource transfer in Niger through its economic and technological power rather than its military force. Nevertheless, France has also made military interventions in various African countries when it has considered necessary. All this poses a critical economic security issue for Niger and some other African countries.

Neocolonialist policies pose a significant threat to the economic security of less powerful nations and will continue to have an important bearing on the evolution of capitalism. It leads to unfair resource and welfare transfers in favor of economically and technologically more powerful nations. The uneven and unfair resource allocation will no doubt lead to more questioning of the sustainability of capitalism.

For the least, under the current capitalist world economic order the poorer nations, especially those in Sub-Saharan Africa remain providers of cheap raw materials to the powerful developed countries. This is akin to the Marxist diagnosis of the

dynamic impact of class struggle in the industrializing European societies of nineteenth century. Unlike in Marxism, it is not reasonable and scientifically acceptable to be deterministic on the neocolonialist trigger of the collapse of the capitalist economic system. However, it is reasonable to expect that the continuation of uneven economic resource transfers will prove to be a major risk to the stability of the capitalist economic system.

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