LUISS

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Master's Degree in Corporate Finance

Chair of Cases in Business Law

The Ukrainian Crisis.
Restrictions on Commodities and Energy Markets in Wartime Regimes

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Peace is not so much a political mandate,
as it is a shared state of consciousness that remains elevated and intact only to the degree that those who value it volunteer their existence as living examples of the same.

Peace ends with the unraveling of individual hope and the emergence of the will to worship violence as a healer of private and social disease.

-Aberjhani-

Abstract

Geopolitical risk has steadily increased over the past ten years, but the global economy and financial markets have ignored it. Businesses and investors have continued operating regardless of the competition between China and America and tensions in the Middle East, believing that the economic repercussions would be minimal. Russia's invasion of Ukraine will break this pattern, isolating the 11th largest economy in the world and one of its most influential producers of commodities. As more severe sanctions take effect, immediate global ramifications will be increased inflation, slower growth, and some disruption of the financial systems. The longer-term effects will further weaken the linked financial markets and globalized supply networks that have dominated the global economy since the demise of the Soviet Union in 1991. Start with the shock to commodities.

Russia is a significant producer of oil, one of the world's top exporters of industrial metals, including nickel, aluminium, and palladium, and the primary gas supply to Europe. Belarus and Russia are noteworthy producers of potash, a component of fertilizers; Russia and Ukraine are significant wheat exporters. These commodities' prices have risen over the past year and are projected to increase even more. On the morning of February 24th, 2022, the price of Brent oil exceeded $100 per barrel, and European gas prices increased by 30%. While the West and Russia mutually depend on each other in the trade of natural resources, the balance of economic power is more lopsided in finance and technology. Thus, America will likely impose much tougher sanctions on Russian tech companies, restricting their access to state-of-the-art semiconductors and software. The technological measures will slow Russia's progress over time and irritate its citizens. The banking limitations took effect a year ago, resulting in a funding shortage and obstructing financial inflows and outflows from the nation. In order to protect its economy against this, Russia has increased its foreign exchange reserves and seen a decline in the proportion of its bills denominated in dollars since annexing Crimea in 2014. China will be the source of Russia's financial requirements. Western sanctions have already had little impact on bilateral trade, as only 33% of payments from China to Russia are made in dollars, compared to 97% in 2014. Russia is relatively underexposed to Western banks. However, since the start of the contemporary period of globalization in the 1990s, a significant economy has been kept from the global financial system. Even if the risk of broader market contagion appears minimal, it cannot be completely ruled out. What impact will this have on the world economy? Due to the isolation of its financial system, Russia is facing a significant but not deadly economic shock.

The possibility for the global economy is increased inflation as natural resource prices rise, which would exacerbate the quandary central banks are already in, or a potential slowdown in corporate investment as nervous markets sap confidence. The world will become more divided into economic blocks faster due to the longer-term effect. Russia will be obliged to lean east and rely more on its economic and trade relations with China. Many politicians and businesses in the West will question if a fundamental premise of globalization remains true for Russia and other autocracies. As a result of Western sanctions against Russia, China will conclude that its drive for self-sufficiency needs to be stepped up. Benchmark gas prices shot up 30% after Russia announced on September 5th, 2022, that it would shut down its Nord Stream pipeline for as long as Western sanctions are in place. They were comparable to about $400 for a barrel of oil at the time. According to Morgan Stanley, annual spending on electricity and gas by consumers and businesses across the European Union could have increased to a startling €1.4 trillion at those time's futures prices, up from €200 billion in recent years. The political and economic crises caused by the energy shock peaked. In Britain, 14% of households still need to catch up on their utility payments. The steelmaker ArcelorMittal did shut down a plant in Bremen. Energy markets are in upheaval as consumers and businesses struggle, and a recession approaches. The gas spike has also turned into an electric shock because Europe's power rates are determined by the expenses of the marginal producer, which is frequently a gas-fired unit. When creditors demand additional collateral because of the wild price swings, some generators are under a cash crunch as utilities from Düsseldorf to Vienna seek bailouts.

Meanwhile, low-margin nuclear and renewable energy companies want to reap hundreds of billions of euros in unanticipated gains. Governments reacted to the pandemic's impact in a similar way, with a frantic rush of freebies and initiatives. The amounts were enormous, and the economics textbooks were being destroyed. Germany spent an additional $65 billion, (1.8% of GDP) on policies that included a price cap for a minimal quantity of power for businesses and households. Liz Truss, Britain's new prime minister, presented a plan to freeze prices for two years as The Economist went to press. The plan, which might cost more than £100 billion (4.3% of GDP), will be paid for by borrowing. The EU is thinking of restricting the profits of electricity plants. Wide-ranging and comprehensive help is necessary, given the severity and scope of the problem. Governments must be careful not to ignore economic caution and rationality in their hurry to take action. Retail energy price freezes, like those in France and those on Ms Truss's agenda, are the most common strategy and are first alluring. They reduce measured inflation and are simple to grasp, which may lessen the need for central banks to boost interest rates. Nevertheless, they also have serious shortcomings.

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1. The Historical Context

1.1 Russia's Imperial Identity

Since the end of the Cold War, Russia's invasion of Ukraine has posed the greatest threat to stability and security in the continent. Vladimir Putin, the president of Russia, gave a strange and occasionally insane speech on February 21st, 2022, outlining a broad number of complaints as a reason for the "special military operation" launched the next day. The address focused on a more fundamental issue: the legitimacy of Ukrainian identity and statehood. These complaints included the long-running disagreement over NATO expansion and the post-Cold War security architecture design in Europe. The emphasis on the enduring unity of Eastern Slavs-Russians, Ukrainians, and Belarusians, who all trace their ancestry to the medieval Kyivan Rus commonwealth and, the suggestion that the modern states of Russia, Ukraine, and Belarus should share a political destiny both now and in the future were reflections of a worldview Putin had long expressed. According to the corollary to that point of view, the West is currently imitating Russia's imperial adversaries by utilizing Ukraine (and Belarus) as a component of an "anti-Russia project", and that separates Ukrainian and Belarusian identities are the result of foreign influence.

Moscow has followed a policy toward Ukraine and Belarus throughout Putin's term in office based on the premise that their different national identities are artificial and thus weak. Putin's claims that foreign adversaries are advancing Ukrainian (and, in a more general sense, Belarusian) identity as part of a geopolitical conflict against Russia are reminiscent of how many of his forebears refused to acknowledge the agency of ordinary people seeking independence from tsarist or Soviet rule. Putin, who has an interest in history, frequently references the ideas of philosophers who emphasized the organic unity of the Russian Empire and its people, particularly its Slavic, Orthodox core, in a style of what historian Timothy Snyder refers to as the *"politics of eternity,"* or the conviction that history has an unchanging essence.[1]

The importance that Putin and other Russian elites place on Russian-Ukrainian-Belarusian unity sheds light on the current conflict, mainly why Moscow was willing to risk a major confrontation on its borders when neither Ukraine nor NATO posed a military danger. It also implies that Russia has more ambitious goals for dominating Ukraine than simply preventing it from joining NATO. These goals likely include control over the country's politics, armed forces, and economy. Also, it clarifies Russia's military approach. Due to typical cultural, linguistic, religious, and other ties with Russia, Moscow

[1] Duncan, P. M. (2005). Contemporary Russian Identity Between East and West. *The Historical Journal*, *48*(1), 277–294.

seemed to believe that enough Ukrainians – at least in the country's east – would accept some reintegration into a Russian sphere of influence. Moscow's bet was not impossible given the recent transition and the durability of familial and other ties across the Russian-Ukrainian border, despite pre-war polls showing significant numbers of Ukrainians eager to take up arms to protect their nation against a Russian invasion. Nonetheless, this assessment of Ukrainian identity has shown to be wildly incorrect, significantly slowing Russia's battle.

The past three decades have considerably strengthened Ukrainian civic identity, particularly after the 2014 *"Revolution of Dignity"* and the subsequent Russian annexation of Crimea and intervention in Donbas. This civic nation of Ukraine includes not just Ukrainian speakers in the west but also a sizable portion of the predominantly Russian speaking but increasingly multilingual east. Even while Putin's Russia remains hooked on quasi-imperial great-power dreams, a generation has grown up in an independent Ukraine that, despite its imperfections, has retained a strong democracy and is becoming more European in its view (due in large part to Moscow's aggressive intervention). The current conflict has strengthened the division between Ukrainian and Russian identities while strengthening the bonds between Ukrainian individuals from various geographical, linguistic, and religious backgrounds. Therefore, Russia's attempt to impose long-term dominance over its neighbour will virtually indeed fail, regardless of what happens on the battlefield.[2]

The reason why Russia's war has slowed down is due in large part to this calculation concerning.

Putin has long asserted that Russians and Ukrainians are "one people" whose shared history suggests they should also share a similar political fate now. However, his address on February 21st was unusually venomous. Putin reportedly said that Ukraine is not even a country, in a meeting with former U.S. president George W. Bush in 2008. In his March 2014 address to the Russian parliament (*Duma*) proclaiming the annexation of Crimea. In his speech before the invasion, Putin further asserted that the existing Ukrainian state was an invention of the Soviet Union and ought to be renamed in honour of its alleged "creator and architect," the head of the Bolshevik movement, Vladimir Lenin.

When Putin's historical escapades are not brushed aside as plain misinformation, they frequently confuse the West. However, his assertion that Ukrainians, Russians, and Belarusians are "one people" has a long history in affluent Russian circles. It still influences both political practice and elite rhetoric. Russian officials and commentators, few of whom have ever bothered to learn Ukrainia, were unaware of the changes as Ukraine has progressively *"Ukrainified"* in recent years.

[2] Teper, Y. (2016). Official Russian identity discourse in light of the annexation of Crimea: national or imperial? *Post-soviet Affairs*, *32*(4), 378–396.

When the Grand Princedom of Moscow (Muscovy) started bringing the diverse East Slavic lands and peoples under control, Russian statesmen and intellectuals generally held what historian Zenon Kohut calls the "unity paradigm," with some variation during the Soviet era. Russian propagandists like the clergyman Innokenty Gizel redefined the Ukrainian territories and their inhabitants as a part of Russia's history during this imperial conquest. They highlighted the presence of a tripartite "all-Russian" population made up of White (Belarusian), Little (Ukrainian), and Great Russians, a concept supported by the Russian Empire's educational system in the nineteenth century. Imperial elites, dedicated to the notion of the "all-Russian" people, thought that opposing nations were actively supporting Ukrainian and Belarusian nationalism as a geopolitical instrument for weakening Russia, a concept Putin has long highlighted.

Since the nineteenth century, when what is now Ukraine was split between Russia and Austria-Hungary, which ruled the western Ukrainian regions of Galicia, Bukovina, and Transcarpathia, Ukrainian nationalism, the idea that Ukrainians constitute a distinct nation deserving of its state, has grown even though the people of modern Ukraine have long maintained political and linguistic identities distinct from those of Russians. The comparably liberal Habsburgs tolerating supported Ukrainian soldiers that fought against Russia in World War I and assisted Ukraine in briefly achieving independence after the fall of the Russian Empire.

On the other side, Ukrainian activists and organizations were prosecuted by the Russian Empire. The minister of internal affairs did issue a decree outlawing publication and instruction in the Ukrainian language in 1863 and remained in effect until 1905. Russian authorities contended that Ukrainian nationalism was a manufactured creation of Vienna intended to disrupt the Russian tribe (*plemeni*), as one senior diplomat put it. The father of Ukrainian literature, Taras Shevchenko, and other intellectuals and activists from the country were detained and forced into exile.[3]

Russian mistrust of Ukrainian identity spread to other targets after World War I ended, and the Austro-Hungarian and Russian empires fell. As for Ukraine, it does not exist, said Sergei Sazonov, a former foreign minister who often supports Slavic national movements, during the Paris Peace Conference. Even the word itself is manufactured and imported. Tiny Russia exists, but there is no Ukraine. The Ukrainian movement is nothing more than a backlash against Bolshevism's and the bureaucracy's abuses. This division between their respective domains remained important long after the Austro-Hungarian and Russian empires were defeated, and during the Russian Civil War, nationalists,

[3] Toal, G. (2018). Near Abroad: Putin, the West and the Contest Over Ukraine and the Caucasus. *The AAG Review of Books*, *6*(4), 293–305.

anarchists, and other factions fought the Polish and Russian forces as well as one another, giving Ukraine a brief time of freedom.

Poland or Romania ruled the western regions previously under Austria-Hungary control by the early 1920s. They remained so until Stalin seized control of them at the advent of World War II. Despite a harsh communization drive, nationalist sentiment persisted in western Ukraine. The OUN (Organization of Ukrainian Nationalists), led by Stepan Bandera, attempted to establish a puppet state under German protection during World War II from its base of operations in western Ukraine. It was the scene of some of the worst war crimes, including the ethnic cleansing of Poles by the Ukrainians and the Germans and Polish attacks on Ukrainian civilians as payback. Bandera developed a reputation for being particularly despised in the Russian narrative, which used his willingness to cooperate with the Nazi invaders to prove the connection between Ukrainian nationalism, ethnic cleansing, and foreign manipulation. Putin and other government representatives assert that the post-2014 governments of Ukraine have carried out a "Banderite" campaign of eliminating Russian influence at the behest of foreign backers.

The persecution of nationalist intellectuals under Stalin, and the blurring of linguistic and ethnic lines between Russians and Ukrainians, contributed to a high degree of Russification in Ukraine, despite the indigenization (*korenizatsiya*) or the stretch of education, culture, and politics in the 1920s. The People's Movement (*Rukh*) of Ukraine took use of the opportunity presented by Mikhail Gorbachev's policy of glasnost (lit., "openness") in the late 1980s to mobilize nationalist movements seeking the dissolution of the Soviet Union. Ukraine was to remain a part of the Moscow-centered confederation Gorbachev hoped would succeed the Soviet Union.

When it came to overthrowing Gorbachev and dismantling the Soviet Union, the then-president of Russia, Boris Yeltsin, supported Ukrainian independence. Nevertheless, he and his advisors agreed that an independent Ukraine would still be tightly tied to Russia. Gennady Burbulis, Yeltsin's advisor, commented, Ukraine's independence seemed unimaginable to our brains and imaginations that it would be an indelible actuality. Therefore, Yeltsin rejected calls from senior military leaders and politicians, including Yury Luzhkov, the mayor of Moscow at the time, to recover Crimea or engage in other forms of territorial revisionism in the direction of a sovereign Ukraine.

However, the legality or viability of the Ukrainian state remained a point of contention for a significant portion of the Russian political and intellectual elite. The novelist and philosopher, Nobel Prize-winning and half Ukrainian by birth Aleksandr Solzhenitsyn, echoed imperial Russian officials' assertion that talk of a separate Ukrainian people existing since something like the ninth century... is a recently invented falsehood. Solzhenitsyn, a person who had long criticized the Soviet system for erasing traditional Russian culture and identity, advocated for the creation of an independent Russian

Union made up of the East Slavic states that made up the Soviet Union's core: Russia, Belarus, Ukraine, and northern Kazakhstan. The Baltic, Central Asian and South Caucasus states would remain part of the Soviet Union. As a distorted byproduct of Austro-Hungarian intrigues, unrelated to common usage and chock full of German and Polish vocabulary, he saw the standardized Ukrainian language. Thus, Solzhenitsyn denounced Ukraine's painful division from Russia and issued a foreboding regarding new waves of separatism within Ukraine.

Putin, a leader who purposefully positions himself as embodying Russia's imperial legacy, uses terminology resembling that of his imperial forebears to discuss Ukraine and the connection between Russia, Ukraine, and Belarus. Putin charges NATO and the EU of aiming to rip Ukraine away from its genuine character and allegiance to Russia by utilizing the ancient groundwork of the Polish-Austrian ideologists to build an anti-Moscow Russia in Ukraine as part of their geopolitical battle with Russia. Putin also highlighted in his speech on February 21st how foreign influences have helped post-Soviet Ukraine's leaders try to create their sovereignty on the negation of all that unites us. This denial of Ukrainian identity and the assertion that Ukraine's wish to be free of Russian control resulted from external factors do not simply appear to be Russian talking points; Putin (presumably, other senior Russian officials) appear to believe them. Even though president Volodymyr Zelensky received 73% of the vote in Ukraine's April 2019 presidential runoff, it helped fuel the Kremlin's confidence that the war would be so easy and that ordinary Ukrainians would welcome Russian forces as liberators once they had overthrown the "*fascist junta*"[4] in Kyiv. Russian pride was based on a fundamental inability to comprehend the rich history of Ukrainian identity and how much Ukraine has changed since the fall of the Soviet Union.

The political outlooks in Russia and Ukraine are changing. In response to Russia's annexation of Crimea and occupation of Donetsk and Luhansk, calls for Ukraine to join the European Union and NATO have significantly increased. Before the Russian incursion in 2014, support for NATO membership was around 50%, but it has since significantly increased, reaching 62% in early 2022. The EU is supported by 68% of Ukrainians, more than two-thirds of the population. These beliefs indicate a seismic shift that makes the idea of reunification with Russia more challenging to envision, regardless of whether either organization is willing to welcome Ukraine. Insofar as politicians like Poroshenko and Zelensky, who have risen to power amid conflict and occupation, emphasize strengthening ties with the Euro-Atlantic West as a buffer against further Russian engagement, they also have ramifications for Ukrainian foreign policy.

[4] Etzersdorfer, I. (2022). Jeffrey Mankoff: Russia's War in Ukraine. Identity, History and Conflict. Washington, D.C.: Center for Strategic and International Studies (CSIS), April 2022,. *Sirius - Zeitschrift FüR Strategische Analysen*, *6*(4), 439–440.

Despite the growth and stabilization of Ukrainian nationalism over the past three decades, remnants of a post-imperial or *"all-Russian"* mentality can still be found in some sectors of Ukrainian (particularly Belarusian) society. The deposed former president Viktor Yanukovych and the leader of Belarus, Aleksandr Lukashenko, both Russian speakers who identify more with the supranational Soviet Union than with the post-Soviet sovereign governments they ruled, have both sided with Moscow. Both encouraged using Russian as a common language, supported organizations with ties to the ROC, and supported close economic and political integration with Russia. Russian efforts to halt Ukraine's westward movement stretch back to the early years following the fall of the Soviet Union. Though Yeltsin accepted Ukraine's post-Soviet borders, concern about the possibility of Russian irredentism was instrumental in Kyiv's 1996 decision to join the pro-Western GUAM group with Georgia, Azerbaijan, and Moldova. These three states did face Russian-backed separatist conflicts on their territory. Putin has made this trend far more pronounced. In 2004, Putin's Kremlin pushed itself into the political politics of Ukraine by openly supporting Kuchma's selected successor Yanukovych. Putin flew to Ukraine before the election and campaigned on behalf of Yanukovych. An assassination attempt against the pro-Western opposition candidate Viktor Yushchenko was generally attributed to the Russian security services. As exit polls revealed that the official results showing a narrow victory for Yanukovych had been manipulated, Moscow increased its support, even as thousands of orange-clad protestors demanded that the election be re-held under international supervision. Although Yushchenko gained a large majority in the new election, Moscow retaliated with a variety of tactics of pressure, including politically driven gas cuts in 2006 and 2009.[5] The bilingual Yushchenko, who emphasized the Ukrainian language and culture, advocated for worldwide recognition of the Stalinist famine (Holodomor) as an anti-Ukrainian genocide. Also, he broached the issue of receiving a Membership Action Plan from NATO, something his predecessors had ignored. Politically, Yushchenko's presidency failed, but he and his orange allies garnered enormous sympathy in the West by portraying Ukrainians as a European country long oppressed by the Russians.

Russia appeared to have a chance to rebound from the defeats of the Yushchenko era with the return of Yanukovych and his eastern-based Party of Regions in 2010 via a free and fair election. Russia has again overstepped. Yanukovych and his followers favoured establishing an association agreement with the European Union despite their desire to preserve close ties with Russia. The agreement called for establishing a Deep and Comprehensive Free Trade Area to increase Ukraine's overall trade and provide Ukrainians with greater European access, including courts and banking systems that would

[5] Tolz, V. (2008). European, National, and (Anti-)Imperial: The Formation of Academic Oriental Studies in Late Tsarist and Early Soviet Russia. *Kritika*, *9*(1), 53–81. https://doi.org/10.1353/kri.2008.0004

assist the oligarchs surrounding Yanukovych in protecting their assets. Putin's call for the creation of a Eurasian Union that would be a powerful supranational association capable of becoming one of the poles of modernity and permit Moscow to expand its political and economic influence across much of the former Soviet Union was incompatible with the desire to sign an association agreement. Once Yanukovych refused membership in this proposed union, Russia used sweeteners and sticks to persuade him to reconsider. Even if Yanukovych agreed at the eleventh hour to leave the EU association agreement, neither he nor the Kremlin anticipated the rage of millions of ordinary Ukrainians who believed that Yanukovych had betrayed their desire for a European future.

Late in 2013, most of the original protesters on Kyiv's Independence Square (Maidan Nezalezhnosti) were young people demanding that Yanukovych sign the deal. They represented a pro-Western Ukraine and rejected Russian influence by waving Ukrainian and European Union flags. Moscow, meanwhile, claimed the Maidan protests were part of a U.S. backed coup attempt, citing the presence of U.S. officials and pro-protestor statements. In addition, it pushed Yanukovych to repress the protests.

Violence by Yanukovych's security forces only exacerbated the protests, which grew outside Kyiv and grew more intransigent. Even in Russian-speaking regions of eastern Ukraine, protesters targeted symbols of Russian dominance, including sculptures of Lenin and General Aleksandr Suvorov, who supervised the capture of southeastern Ukraine from the Ottoman Empire. Even the Kremlin acknowledged in February 2014 that Yanukovych could not remain in office and joined negotiations for a planned transition. However, Yanukovych's quick exit undermined the transition deal and led to early elections, restricting Moscow's capacity to influence the results. The May 2014 presidential election was won decisively by the pro-Maidan and pro-European Petro Poroshenko. His signature on the EU association agreement closed the door on Ukraine's possible inclusion in the renamed Eurasian Economic Union, which was reduced to a shadow of what Putin had envisioned.

After failing to persuade Ukraine back into the fold, Russia decided to split the country. Even before Yanukovych fled the country, pro-Russian protests erupted in the Crimean port of Sevastopol; within days, Russian special forces (little green men) began seizing government buildings military assets across Crimea. Putin announced the annexation of Crimea in a speech to the Duma roughly three weeks later, following a referendum that was hastily organized. The swiftness with which Russia annexed Crimea (where the majority of the population is ethnic Russian) reinforced Russian assumptions about the weakness and artificiality of the Ukrainian state and prompted Moscow to undertake a similar effort in several Russian-speaking regions in eastern and southern Ukraine. To Moscow's surprise and dismay, the Crimea playbook had minimal impact in other regions. Pro-Russian protesters in the oblasts of Dnipro (Dnepropetrovsk), Kharkiv, Kherson, Mykolaiv, Odesa, and Zaporizhzhia were

unsuccessful in seizing control of government buildings and communications infrastructure. In Kharkiv, police detained hundreds of protestors who had seized the regional government building; in Odesa, counter-protestors set fire to the commandeered Trade Unions building, killing approximately forty pro-Russian activists. To Moscow's surprise and dismay, the Crimea playbook had minimal impact in other regions. Only in Donetsk and Luhansk were pro-Russian protesters able to seize control of the local government and initiate an uprising. However, attempts to use referendums similar to those in Crimea as a pretext for annexation were abandoned, perhaps because too few voters supported Russia's takeover. In response to the separatists' capture of Donetsk and Luhansk, Poroshenko launched an "anti-terrorist operation." By the summer of 2014, the Ukrainian military was close to encircling the separatist troops in the self-proclaimed Donetsk and Luhansk people's republics (DNR and LNR), severing their supply routes to Russia and leaving them susceptible to annihilation. In August 2014, in response to the possibility that its proxies would be annihilated, Moscow invaded Ukrainian territory by force[6]. The Donbas War proved costly for Ukraine, but Russia could not convert its military win into an excellent political solution. Military occupation and control of the border just permitted Moscow to support separatist territories and prevent their reconquest.

Russia also failed in its more giant objective of using the breakaway regions as a club to coerce Ukraine into abandoning its desire for integration with the West. Neither Poroshenko nor Zelensky made significant efforts to implement the terms of the February 2015 Minsk II ceasefire agreement, which required the Ukrainian parliament (Verkhovna Rada) to adopt a law on special status for the occupied regions and to implement a constitutional provision on decentralization. Both parties understood that these measures would entrench separatists supported by Russia within the state's federal structure, compromising Ukrainian sovereignty and granting Moscow veto power over Ukraine's foreign policy and that no democratically elected Rada would vote in favour of these provisions.

Although he promised a more pragmatic approach to Russia and the conflict in Donbas when he assumed office, perceptions of Russian stubbornness and bad faith pushed Zelensky to adopt a stricter stance on Minsk II. By the end of 2021, he suggested that Kyiv should seek to alter or terminate the agreement if negotiations fail to advance. In addition, Zelensky began chipping away at the cornerstones of Russian dominance. On treason accusations, his administration imprisoned oligarch Viktor Medvedchuk, who funded several of these channels and is the Kremlin's primary conduit in Ukraine. Zelensky also advocated for reforming the security services to seek out the Russian sympathizers who played a crucial role in the annexation of Crimea and have since obstructed

[6] Etzersdorfer, I. (2022). Jeffrey Mankoff: Russia's War in Ukraine. Identity, History and Conflict. Washington, D.C.: Center for Strategic and International Studies (CSIS), April 2022,. *Sirius - Zeitschrift FüR Strategische Analysen*, *6*(4), 439–440.

investigations into Russian involvement. Under substantial pressure from Moscow, the bilingual Zelensky upheld the language law enacted at the end of Poroshenko's presidency.

The conflict in Donbas left Russia facing escalating economic penalties from the United States and the European Union that stifled its economy. In 2016, NATO responded to member states' fears along Russian borders by reinforcing its military capabilities in Estonia, Latvia, Lithuania, Poland, and Romania and standing by its 2008 pledge that Ukraine and Georgia will become members. In 2019, the United States abandoned the Intermediate Nuclear Forces (INF) Treaty after accusing Russia of noncompliance. This step would allow for nuclear deployments in Central and Eastern Europe and around the Russian periphery in Asia. With this deteriorating security environment and calculating that the West was too divided and distracted to respond forcefully, Putin gambled on an all-out invasion in February 2022. Even with the reported 190,000[7] troops massed on the Ukrainian border when the invasion began, Moscow lacks the workforce to carry out a sustained military occupation, especially in the face of an insurgency sustained by foreign support. The failure of assaults on Kyiv, Kharkiv, and other cities in the spring of 2022 extracted heavy casualties and forced Moscow to pivot back to Donbas. US and EU sanctions have hit Russia hard, with most of its banking sector cut off from access to the dollar-denominated financial system and the prospect of default looming. While the war has boosted Putin's standing in opinion polls, it has also prompted a mass exodus of educated Russians and draconian crackdowns at home. Putin's decision to use force, mainly to carry out a large-scale invasion rather than the more limited incursions Russian forces conducted in Georgia (2008) and Donbas (2014 – 15), smacks of desperation. Putin's February 21st speech and a subsequent address announcing the start of Russia's special military operation on February 24th effectively denied the idea of a separate Ukrainian identity and the legitimacy of the Ukrainian state. Ukrainian resistance was almost guaranteed. Russian atrocities will only reinforce the imperative to resist. This time, Western powers are preparing to support an insurgency as well.

Despite the unimpressive performance of its military thus far and the potentially crushing impact of the sanctions it now faces, Russia could still emerge victorious on the battlefield, but only at a very high cost. Its odds of maintaining a long-term protectorate appear to plummet each day Ukraine holds out. The outcome of the conflict will depend on the West's response and, above all, on Ukrainians' willingness to fight for a nation Putin does not recognize.

[7] Wintour, P. (2022, February 18). Russia has amassed up to 190,000 troops on Ukraine borders, US warns. *The Guardian*.

1.2 The Impact of the War on the Economy

Military wars have historically had a considerable impact on the global economy, ranging from economic, trade, and monetary destruction to the loss of production and labour capacity, resources, and livelihoods. By extension, the repercussions are felt by the concerned parties, trading partners, and neighbouring states. Geopolitical dangers are portrayed as terrorist strikes (Plakandaras et al., 2019). Numerous authors have examined uncertainty (Bilgin et al., 2018; Alsharif et al., 2021) and geopolitical risks as the driving forces for commodity prices and sustainable performance, emphasizing the significance these risks have in the formation of financial and macroeconomic cycles. After Russia invaded Ukraine in February 2022, the United States, Europe, and several other nations put economic sanctions on the country. The sanctions have a substantial influence on the economy of Russia. Russian GDP is projected to decline by -12.5% to -16.5% in 2022 (Pestova et al., 2022), harming the local economy. The most recent event heightens the peril associated with transnational financial and operational vulnerabilities. Bluszcz and Valente (2019) examined the economic sanctions the EU imposed on Russia in the aftermath of Crimea's annexation in 2014 and the Donbas war and found that the sanctions had negatively impacted both Russia and the EU due to the indirect effect, interdependence of trading, and cooperative political relations (Bluszcz & Valente, 2019. Parvi (2021) analyzed the conflict's effects on publicly traded Ukrainian enterprises. Sanctions directly impact exports but indirectly impact GDP, as GDP is more dependent on taxes and overall performance (Giumelli, 2017). War always leaves a legacy of debt and a demobilized army of warriors (Hang et al., 2021). [8]

The current sanctions against Russia are unparalleled in speed, scope, and global coordination, and the economic repercussions have already materialized. Before the beginning of the war, it is crucial to consider the opportunity cost of military expenditure and the cost of mending post-war damage. The value of Russian oil and gas imports to the EU in 2019 was €200 billion per year, double the foreign exchange reserves of G7 nations at the end of 2021. An embargo on Russian oil imports caused prices to rise on the world market, resulting in a supply shock, the effects of which can be reduced by engaging in trade with other suppliers. The EU must diversify its sourcing to reduce reliance on Russian supplies, which entails revamping the European energy system and constructing networks to connect and diversify smaller prospective energy providers.

[8] Guénette, Kenworthy, P., & Wheeler, C. (2022, April). *Implications of the War in Ukraine for the Global Economy*. worldbank.org.

While oil and coal can be exported without considerable infrastructure needs, gas trading is infrastructurally dependent, thus impeding diversification capabilities. Europe's dependence on Russian imports is substantial, and the suspension of gas would cause the EU to lose 40% of its gas supply. Due to trade interdependence, however, Russia stands to lose more if its exports are halted. EU meets only 8.4% of its total energy demand from Russia and has a greater chance of diversifying its energy sources than Russia does of diversifying its export markets (WEF, 2022). According to some authors, if Europe were to run out of Russian imports, EU imports from alternative suppliers would have to increase by 70%, which would be extraordinarily costly in the short term. However, the economy would adjust, and the shift would be cost-effective in the long term (Pisani-Ferry, 2022). Obtaining autonomy is one of the significant benefits of strategic sourcing diversity. To lessen its current reliance on Russia, the EU must either reduce demand for imports by reducing domestic demand or seek alternative sources of supply, such as retiring nuclear power reactors and installing renewable energy.

Even before the conflict, the EU had been severely harmed by a COVID-induced shock that caused a decline in trade and a boost in inflation due to increased energy prices. The European Central Bank was confronted with inflationary concerns exacerbated by the Russia-Ukraine crisis, which provided a lasting shock. When a commodity price shock develops, as with geopolitical risks, the Central bank should address indirect secondary effects and avoid counteracting acute inflation implications. Instead, permanent relative pricing fluctuations should be tolerated. Transfers, across-the-board tax cuts, and price restrictions are among the measures EU countries use to alleviate the effects of supply shock and soften its impact. This will affect the power price index and is likely to be pricey. As a result of the conflict, interventions are made to adjust the drivers of electricity pricing based on the cost of marginal energy sources, which acts as a shock transmitter to gas prices and ultimately results in an increase in rents for electricity producers. Geopolitical strife will necessitate adjustments in the EU's policy orientations and lead to government interference in the market. Considering fiscal assistance, actions adopted at the start of the second half of 2021 had budgetary expenses ranging from 0.5% to 1% of GDP[9]. Future steps to address the rise in energy prices can increase the cost to 1% of GDP (Pisani-Ferry, 2022).

The EU has expanded its investments in decarbonisation, digitalisation, and resilience throughout the current war. In the current Russia-Ukraine conflict, the short-term costs of decreasing reliance on Russian imports would amount to €100 billion, of which €50 billion would be invested in rebuilding

[9] Pisani-Ferry, J. (2022). The economic policy consequences of the war. *Bruegel*.

the reserves, €25 billion would be an additional cost for other suppliers, and €25 billion would be allocated to the coordination of distribution across the EU (European Commission, 2022).

There has been much discussion over the costs of the Ukrainian conflict. Nevertheless, the actual direct cost is the opportunity cost of resources utilised in the competition that cannot be used elsewhere, as well as the welfare losses of those killed or injured. This cost to the United States includes not only government resources but also the lost productivity of National Guard and Reserve personnel (henceforth Reserves) who were mobilised as a result of the Iraqi venture and were unable to perform their civilian duties, as well as the value of lives lost and injuries. At times of conflict, social sector debt typically increases significantly. Patriotic enthusiasm for the war effort has prompted the government to be much more willing to borrow than usual. In both instances, the national debt increased substantially. As a result of rehabilitation and the creation of the welfare state, debt continued to rise in the decades following World War II. As a geopolitical threat to safety, governments are compelled to engage in a crisis by interfering in markets and imposing sanctions on riskier countries or providing financial support in response to shortages and resource scarcity, which strains public budgets. Due to the risk of incurring losses during resource price fluctuation, private enterprises are neither willing nor responsible for securing and enhancing reserves. Thus, public funding is required. Europe has offered Ukraine a military assistance package totalling €500 million in financial assistance. The geopolitical risk raises defence spending by either implementing a debt fund or increasing tax-funded spending. Neighbouring nations frequently view disputes as a danger and, as a result, increase their defence spending, which harms their economic growth. With the present Russia-Ukraine war, EU member states have defence expenditures ranging from 1.4% to 2% of GDP and are expected to boost spending (IMF, 2022). According to Pisani-Ferry's (2002) prediction, the investment in European defence operations might reach €20 billion in 2022 and €40 billion in 2023 if no direct military activities are envisaged in the conflict. The literal hypotheses that indicate geopolitical concerns and threats influence crude oil futures returns demonstrate that increased oil prices result from a threatened energy supply. During the 1990 Gulf War, for instance, oil prices increased. Following the invasion, oil prices increased from $21 per barrel in July to $46 per barrel in mid-October (IMF, 2022). Due to Russia's invasion of Ukraine in 2022, oil and gas prices skyrocketed, increasing global fuel prices.

Even though it promotes domestic production and consumption, war inevitably causes devastation. Other aspects may be the sort of war, such as its duration, the location of the conflict, and the method of combat. The United States, for instance, participated in World War II, both the Korean and Vietnam Wars. As a result of the wars, domestic demand increased, with several manufacturing enterprises functioning exceptionally well. However, we must remember that these wars occurred in countries like the United States. Asia and Europe bore the worst of the carnage.

After World War II, the most protracted financial growth occurred, which explained why borrowing was not a progressive component (Britain post-World War II). After the Civil War and the First World War, the UK suffered leading unprecedentedly extended unemployment together with the veterans with awful job prospects. A war battle can significantly damage a nation's economic strength (Hang et al., 2021). People's lives are jeopardized, GDP is damaged, and several economic sectors see a loss in effectiveness. Conflicting currency devaluation has generated uncertainty in the financial system, heightened uncertainty, and an unexpected fall in people's income. Cost-push inflation is produced by a scarcity of products and services and rising prices for critical resources such as oil (interestingly, price controls and rationing were employed to keep prices in check during World War II). Hyperinflation develops when the conflict slightly restricts the country's production because the government seeks to produce new money to offset the expenses. In 1946, Hungary and Austria faced historic inflation due to their devastated economies. Although the repercussions of inflation are already evident, such threats are plausible for both Ukraine and Russia. Long-term violence also causes a substantial decline in GDP. In the future, health care and education services will be substantially decreased.The damage to the Russian financial and economic system does include a decline in the ruble (down more than 25% versus the dollar last month due to I ncreased volatility), a substantial increase in the central bank's monetary rate, and capital restrictions. Russia had an unexpected share market shutdown and the removal of *RuBonds* from global indices. In addition, Russian enterprises listed on international stock exchanges have lost value, resulting in the departure of Russian markets from the international base.

Historically, those singled out have found ways to reduce the harshness of the sanctions. On the other side, other nations worldwide have continuously increased the stakes by increasing and expanding sanctions against Russia. There have been numerous economic warfare activities, most notably the restriction of the Russian central bank's access to foreign assets to raise the value of the Russian monetary system, sustain the finance, and compensate for the invasive harms caused by the strictest Russian sanctions. Financial fines are one of the most common forms of invasion reaction, Russia's inter-institutional interactions. The SWIFT system has been excluded,[10] and the central bank and numerous Russian international commercial bank assets have been blocked. Some examples of constraints include the exportation of technological assets to Russia and many Russian oligarchs' takeover of international assets.

[10] Jazeera, A. (2022, February 27). What is SWIFT and why were some Russian banks excluded from it? *Explainer News | Al Jazeera*.

By 2022, the Russian economy will be in dire straits, and the country will undoubtedly experience a protracted recession. In light of last year's recovery, the adjusted GDP prediction for 2022 is -7.5%. According to statistics, the country's risk rating has been reduced from B to D (moderately high) (extremely high) as a result. An increase follows the depreciation of the Russian ruble in consumer costs. Because of sanctions on key Russian banks, Russian national debt selected by Russian elected officials and the wealthy, and export controls on high-value components, the situation described above exists. The Western depositary countries slapped a freeze on Russian banks; as a result, the Russian central bank cannot use them, diminishing the impact of the Russian response. However, Russia's external public debt is low because its economy is robust enough to withstand the financial challenges posed by its constant current account deficit and substantial capital inflows (about USD 640 billion) (Coface Trade Newspaper, 2022). EU nations have restricted Russian imports, but it is anticipated that Asian energy exports will boost the Russian economy. Conversely, the Russian industrial, processing, and quarrying sectors will collapse due to restricted access to Western-made electronic devices, PCs, communications, robotics, and data-based security systems.

Due to the interruption of financial markets, the improvement of the global economy remains to be determined. It has been demonstrated that armed conflicts and wars significantly impact regional and worldwide economies (Jola-Sanchez & Serpa, 2021; Hang et al., 2021). Europe's economies are the most vulnerable: In 2022, institutions forecast at least 1.5 percentage points more deflation, with GDP growth perhaps reduced by one percentage point (EU, 2022). The automobile, shipping, and chemistry industries are especially susceptible to deflation and civil unrest due to prolonged inflation generated by expensive commodities. The conflict also wreaks havoc on Europe and Central Asia's developing economies. Owing to the lingering effects of the epidemic, this region is on the verge of experiencing a recession this year. All nations' growth forecasts except for Russia and Ukraine have been reduced due to war-related spillovers, worsening euro-area GDP, resource, marketing, and monetary contractions. Russia purchases from numerous Asian nations; consequently, remittances from Russia to some Middle Asian nations, such as the Kyrgyz Republic and Tajikistan, equal 30% of GDO. Middle Asia and the South Caucasus import almost 75% of the wheat, while Russia and Ukraine by roughly 40%. (FAO, 2022).

The economic implications and possible severity of the damage to the European economy caused by the suspension of Russian energy mainly depend on resource reallocation[11], fuel switching, demand reduction, and energy source substitution. Most Russian natural gas reserves in Europe are not

[11] Di Bella, G., Flanagan, M. F., Toscani, F., Pienkowski, A., Foda, K., Stuermer, M., & Maslova, S. (2022). Natural Gas in Europe: The Potential Impact of Disruptions to Supply. *IMF Working Paper*, *2022*(145), 1.

expected to be replicated, and current prices will significantly impact inflation. Europe is anticipated to experience oil and natural gas challenges due to its reliance on Russian supplies (Weizhen Tan, 2022). The Eurozone's trade dependency indicates a general reduction, whereas Germany, Italy, and most Central and Eastern European nations continue to rely on Russian natural gas. The energy consumption is attributable to Russian imports in the industry (for heating and cooling purposes), residences, trade and commerce, electricity generation, and transportation (Bachmann et al., 2022). Since June 2021 and the beginning of 2022, the share of Russian gas imports to the EU has reduced from 40% to 20 to 30% (McWilliams, Sgaravatti and Zachmann, 2022). EU gas, oil, and coal prices increased prior to the escalation of the Ukraine crisis due to the removal of COVID-19 restrictions, the appreciation of the US currency, and OPEC's reluctance to boost extraction (Bachmann et al., 2022). Using lignite, hard coal, and even nuclear energy can reduce the gas consumed to generate electricity. If energy generation in industrial power plants also shifts to alternative input uses, cost savings from the decrease in imports and the substitution of energy sources can substantially impact the European economy's financial burden (Mahler, 2007). Several alternative sources are accessible on the global market. Therefore, it is possible to replace Russian oil imports by switching providers. The total cost will depend on the timing of targeted policy measures; therefore, the action should be assumed regardless of the embargo to avoid further losses in 2022 and 2023.

A complete cessation of Russian natural gas deliveries to Europe in 2022 is anticipated to increase costs by 4%, putting annual GDP growth close to zero, if not pessimistic (IMF, 2022). The Russian-Ukraine crisis has reverberated throughout the international economy[12]. While supply disruptions have become more frequent, commodity prices and considerable energy demand have risen significantly (Bachmann et al., 2022; Chepeliev et al., 2022). Sanctions and trade restrictions were also imposed on Russian organizations, businesses, and individuals (Berner et al., 2022), and a refugee crisis involving around four million Ukrainians exacerbated economic turmoil.

Russia began its unjustified invasion of Ukraine a year ago. That was a turning point for Europe. The attack on Ukrainian cities and infrastructure have resulted in significant loss of life and material harm. The ECB stands in solidarity with the Ukrainian people.

[12] *Real GDP growth*. (2023). International Monetary Fund.

1.3 International Law and the War in Ukraine

Amid a war, human rights and international law institutions have reacted to the crisis with unprecedented speed, partly because the Ukrainian government has been actively participating in multilateral fora. Although these organisations cannot do much to help Ukraine's citizens immediately, the initiatives serve crucial political purposes because they demonstrate the political and legal.
They provide the Russian government with alternatives to the logic of war; they formalise international consensus, offer independent legal analyses of the attack, and, most importantly, lay the groundwork for ensuring accountability for crimes committed during the war.

Ukraine and its allies quickly established an impartial inquiry commission at the Human Rights Council, strengthening the current human rights monitoring system. Data on human rights violations and their perpetrators will be gathered.
A group of impartial experts with a mandate similar to the Human Rights Council's has been commissioned by the Organization for Security and Cooperation in Europe (OSCE) using its "Moscow Mechanism."[13] Ukraine first approached the ICC in 2014, but the ICC Prosecutor is now moving more quickly due to Russia's invasion. Building on exceptional political support and engagement from Ukraine, ICC state parties, and the US government, a thorough investigation was started on March 2nd, 2022. International crimes are the subject of parallel domestic investigations by the Ukrainian Prosecutor in Ukraine and EU Member States. These inquiries (which ought to be carefully coordinated) provide additional channels for accountability. The idea of establishing a special international court to prosecute the crime of aggression and put pressure on the Russian government has received much support.
In the early stages of the conflict, urgent provisional measures were taken against the Russian Federation in response to the Ukrainian state's application to the European Court of Human Rights and individual applications made by Ukrainian citizens. The Court will continue to have jurisdiction over cases brought in connection with the war even though Russia was expelled from the Council of Europe, adding another level of judicial scrutiny of Russia's actions and specific human rights violations. However, the European Convention on Human Rights will be followed in these cases. To develop cases for prosecuting those responsible for war crimes against humanity, it is still essential to provide the tools and technology solutions for collecting and storing a large amount of data and evidence. The EU contributes money to this process through the Global Europe Institution.

[13] Human dimension mechanisms. (2023). *OSCE*.

In a different EPRS/Policy Department briefing, the International Court of Justice's decision to order Russia to halt military activities in response to Ukraine's application immediately is discussed.

At Ukraine's request, UN member states decided to hold an urgent debate on the dire situation and human rights violations and denounce Russia's aggression during the 49th UN Human Rights Council (HRC), which took place from February 28th to April 1st. China, Cuba, Eritrea, Russia, and Venezuela were the only five of the 47 nations to vote against conducting the debate; 13 other nations abstained (Armenia, Cameroon, Gabon, India, Kazakhstan, Mauritania, Namibia, Pakistan, Senegal, Somalia, Sudan, United Arab Emirates and Uzbekistan). The demands made in the UN General Assembly (UNGA) resolution on "Aggression against Ukraine," approved on March 2nd, 2022, are supported by resolution A/49/L.1, "Situation of human rights in Ukraine emanating from the Russian aggression,"[14] which was accepted at the urgent meeting on March 4th, 2022. It denounces Russia's invasion of Ukrainian land and calls for an immediate end to all abuses of human rights and a Russian troop withdrawal. Even more states (32) voted in favour of the resolution, with only two voting against it (Russia and Eritrea) and 13 abstaining (Armenia, Bolivia, Cameroon, China, Cuba, Gabon, India, Kazakhstan, Namibia, Pakistan, Sudan, Uzbekistan, and Venezuela).

The principal operational result is the creation of a three-person independent international commission of investigation, appointed by the president of the Human Rights Council on March 30th, 2022, for a one-year beginning term. The experts' mandate is to investigate all alleged violations and abuses of human rights and violations of international humanitarian law, collect, consolidate, and systematically record and preserve evidence, identify, where possible, those persons or entities responsible, and make recommendations on accountability measures. This is similar to previous commissions that the HRC has established. The UN High Commissioner for Human Rights and the UN Human Rights Monitoring Mission in Ukraine (HRMMU), which has 57 employees and has so far remained in the nation, will collaborate with the independent commission, which has a budget of USD 4.1 million. Founded in 2014, the HRMMU keeps tabs on, reports on, and promotes improvements in the human rights situation in Ukraine, with a particular emphasis on the conflict zone in eastern Ukraine, the Autonomous Republic of Crimea, and the Russian-occupied city of Sevastopol. It frequently publishes information on violations of human rights and wartime deaths of civilians. In addition to Kyiv, Kharkiv, Donetsk, Luhansk, Kramatorsk, Mariupol, and Odesa, it has seven other field offices.

[14] Chachko, E., & Linos, K. (2022b). International Law After Ukraine: Introduction to the Symposium. *AJIL Unbound, 116*, 124–129.

The commission of inquiry will present an oral update at the HRC's 51st session in September/October 2022; at the HRC's 52nd session in spring 2023, a written report will be presented. The data gathered by the commission will be relevant for federal investigations utilising the concept of "universal jurisdiction" and existing investigations and proceedings in other international courts, such as the ICC and ICJ (see below).

Early calls by civil society organisations and some UN Member states - e.g. Once evidence of massive war crimes in the Ukrainian village of Bucha emerged, Lithuania's calls to expel Russia from the Human Rights Council increased. On April 7th, at the UN General Assembly meeting

Ninety-three members voted to suspend Russia from the Human Rights Council in 2022. A two-thirds majority of the members present and voting in the General Assembly (GA) may suspend the HRC, according to paragraph 8 of the resolution 60/251 that established it.

In the HRC's history, this is the second instance, the first being the suspension of Libya in 2011 (resolution A/RES/65/265). The choice will not affect the Monitoring's work.

The OSCE resolved on March 3rd, 2022, to use the Moscow Mechanism. This 1991-instituted tool would deploy experts to the OSCE States to help with challenges or difficulties connected to human rights and democracy. This decision was made in response to requests from 45 states and with the cooperation of Ukraine. In order to "examine the human rights and humanitarian repercussions of the Russian Federation's invasion and acts of war, aided by Belarus, on the people of Ukraine," a committee of three impartial experts was proposed by the OSCE on March 15th, 2022. The team is tasked with gathering the details and circumstances.

Concerning potential violations of the OSCE's obligations, transgressions of international humanitarian law and human rights legislation, potential instances of war crimes and crimes against humanity, and gathering, compiling, and analysing this material to convey it to relevant Courts and accountability mechanisms. The OSCE Special Monitoring Mission to Ukraine (SMM), established in 2014 at Ukraine's request and had 500 foreign observers on the ground when the conflict began, evacuated all its staff simultaneously and was forced to halt its reporting.

Karim A. A. Khan, QC, the Chief Prosecutor for the International Criminal Court and a resident of the United Kingdom, decided to launch an inquiry into the situation in Ukraine on February 28th[15]. At Ukraine's request, a preliminary investigation had already been started in April 2014. The former Prosecutor (Fatou Bensouda) decided in 2020 that there was enough evidence to suspect that war

[15] Nebehay, S. (2022). Ukraine seeks UN investigation into alleged Russia war crimes. *Reuters*.

crimes and crimes against humanity had been committed. The complete inquiry was suspended while the ICC pursued other objectives, but after the Russian invasion on February 24th, 2022, the investigation was again given top priority. According to Article 15 of the Statute, the Prosecutor can initiate an investigation independently. However, in contrast to state referrals under Article 14, they must first receive permission from the Court's Pre-Trial Chamber. On March 1st, 2022, the Republic of Lithuania referred the situation in Ukraine to the ICC, which allowed the inquiry to get underway immediately. Russia opposes the ICC's jurisdiction and denies involvement in the alleged war crimes and crimes against humanity committed in Ukraine since November 21st, 2013. The inquiry was given to Pre-Trial Chamber II. Russia and Ukraine are not signatories to the Rome Statute, the agreement that established the ICC. Russia

signed the law but did not ratify it, and in November 2016, it retracted its signature. Ukraine still needs to ratify the statute. Nonetheless, Ukraine has twice stated that it recognises the Court's competence for conducting criminal investigations on Ukrainian soil, as Article 12(3) of the Rome Statute provides. Statute. On November 21st, 2013, Ukraine made its first proclamation, effective until February 22nd, 2014. From February 20th, 2014, the second declaration gave the Court indefinite jurisdiction. Crimes against humanity, war crimes, and genocide are the three major crimes that fall under the purview of the ICC. In this instance, the Court cannot investigate the aggression offence (ICC Statute).

ICC Statute), which stipulates that either both parties must ratify the Rome Statute or bring the matter to the UN Security Council, art. 15 bis (5), art. 15 ter. Regardless of the suspect's nationality, the ICC can look into and prosecute anyone accused of committing crimes over which the Court has jurisdiction on Ukrainian soil.

Vladimir Putin, the president of Russia, and other senior Russian leaders could be examples of this. The probe also examines any criminal activity by Ukrainian officials and the military. Only when states are unable or unwilling to pursue the crimes themselves does the ICC launch investigations (complementarity principle). Law experts have noted several difficulties the Court will face:

1. A clear line of command between crimes and the military or political decision-makers must first be established to create cases against high-level offenders.

2. According to Article 63 of the ICC statute, the Court cannot try someone in absentia. Hence it must first issue a warrant for their arrest and transport to the Court (Article 58). Yet, it appears highly improbable that Vladimir Putin or other senior Russian officials would abide by the arrest warrant and depart Russian territory or that the arrest warrant would be carried out by the

Russian government. As evidenced by prior cases, bringing charges against implicated individuals while they are still in office is very challenging. In March 2009 and July 2010, the ICC issued two arrest warrants for former Sudanese president Omar al-Bashir. The former president of Sudan, who is currently imprisoned, was not ordered to surrender until 2021.

3. Finally, there have been worries that the US's refusal to ratify the Rome statute may undermine the ICC and limit its ability to offer full diplomatic support. Regardless of the nationality of the defenders, the US has previously objected to the notion that the Court's jurisdiction is formed by the ratification of the country in which crimes occur.

The US imposed penalties against ICC prosecutors under the Trump administration, setting a risky precedent. The US administration has announced it is also gathering evidence of war crimes, but it has begun to reevaluate its stance on the ICC and has expressed support for the ICC probe in Ukraine. A resolution urging member nations to petition the ICC or other suitable international tribunals to take whatever necessary actions and support any investigation into Russia's war crimes have been approved by the US Senate.

The ICC probe has political ramifications since it emphasises the need for justice for war crimes and crimes against humanity on the same scale as those allegedly committed in Ukraine. Despite the ICC's limited success thus far, it can grow thanks to unparalleled backing. In the best-case scenario, making the probes public could dissuade Russian military commanders from assaulting civilian targets, engaging in additional war crimes, or destabilising the government. At the same time, some experts fear that the proceedings may further eliminate President Putin's escape options.

The Court will use the evidence that Ukrainian authorities have previously gathered, ICC member nations, and civil society organisations. The general use of digital technology and the international community's expertise in gathering and keeping evidence in recent impunity cases might establish a strong foundation for the ICC's work[16]. The case is expected to be given a high priority by the Prosecutor in terms of time and resources, given the international spotlight on the crisis. The Prosecutor has already visited Western Ukraine, where he spoke with Dmytro Kuleba, the minister of foreign affairs, and Iryna Venediktova, the prosecutor general. Also, he conversed with President Volodymyr Zelensky when declaring support for the investigation's conduct by the nation's governmental authorities. Khan also went to the Polish border to interview migrants at the Medyka refugee

[16] *Interview of the head of Ukrainian diplomacy, Dmytro Kuleba - Ukrinform*. (2022, August 4). Embassy of Ukraine in the Portuguese Republic.

processing centre. Khan requested "more budgetary support, volunteer contributions to support all of our situations, and the loan of gratis staff" when he first opened the probe. A lack of resources must protect the seriousness of our mission's relevance and urgency, participants at a meeting on March 24th agreed. Several state parties pledged to provide additional financial and technical resources in The Hague in 2022.

Courts and domestic judicial processes offer a complementary means of guaranteeing responsibility and securing data. The Ukrainian Prosecutor has started an inquiry and established a government website where members of the public may report crimes and mistreatment. The Ukrainian Criminal Code addresses both the crime of aggression and war crimes committed there. A Working Group of international attorneys and human rights specialists assists the Prosecutor General's Office. However, how the military scenario plays out will determine how well Ukraine's criminal justice system can bring charges. Another option is universal jurisdiction. According to reports, investigations into international crimes have been opened in ten EU member states, including Germany, Estonia, Lithuania, Poland, Slovakia, and Sweden. These investigations may result in national judicial authorities issuing arrest warrants or producing evidence to share with other courts or tribunals.
The Ukrainian prosecutor has requested a global alliance to investigate Russian criminal activity. She has a tight working relationship with the ICC, a working agreement with the European Public Prosecutor's office, and a memorandum on collaboration with the UK Attorney General's Office to support and help one another legally. Legal professionals and politicians, including international law specialist Philippe Sands and former UK Prime Minister Gordon Brown, have suggested creating an ad hoc international criminal tribunal because the ICC lacks jurisdiction over the crime of aggression concerning Russia or Ukraine.[17] The Ukrainian government, the foreign affairs committees of numerous European parliaments, and many people who signed a global petition all support the idea. The Human Rights Subcommittee of the European Parliament discussed the practical and legal difficulties of such a tribunal on March 28th, 2022. The ongoing reflections are being participated in by legal experts from various EU member states. Such a tribunal would have the authority to bring charges against those accountable for the global crime of invasion, such as the war's financiers and political and military leaders. The tribunal might be founded on an agreement between Ukraine and a group of states or an international organization with the backing of the Ukrainian government. Some lawyers suggest a hybrid tribunal between the United Nations and the Ukrainian government. Such an

[17] A. Hathaway, O. X. (2022). The Case for Creating an International Tribunal to Prosecute the Crime of Aggression Against Ukraine (Part I). *Just Security*.

alternative is doable, as evidenced by precedents like the Special Court for Sierra Leone (SCSL), which was established by an agreement between Sierra Leone and the United Nations, and the Extraordinary Chambers in the Courts of Cambodia (ECCC), established by agreement between Cambodia and the United Nations. Another suggestion is to establish a deal between Ukraine and the Council of Europe, using the Extraordinary African Chambers as an illustration of a regionally-supported hybrid tribunal that successfully punished the former president of Chad, Hissène Habré.

Under Article 8 of the Council of Europe Constitution, the Russian Federation's representational rights as a member state were suspended on February 25th, 2022. Russia was officially expelled from the Council on March 16th due to substantial and ongoing violations of Article 3 of the Statute by Russia. The Committee of Ministers of the Council made this decision. The ruling took note of the Russian Federation's communication on March 15th, 2016, announcing its withdrawal and determination to reject the European Convention on Human Rights (ECHR). The Court can still hear the case for six months under Article 58 of the ECHR.[18] According to an ECHR resolution from March 22nd, 2022, the Court "remains competent to deal with applications directed against the Russian Federation... until September 16th, 2022." This means that Russia would have to abide by the Court's rulings regarding the war in Ukraine. The Court also retains its authority to pursue any new or ongoing cases relating to abuses and violations before September 16th, 2022. This includes the ruling about Ukraine's application from February 28th, 2022, which accused Russian troops of egregious human rights breaches. To urge the Russian government to stop using military force against civilians and civilian-owned property, the Court approved urgent temporary remedies on March 1st. The Court announced comparable measures in response to various requests on March 4th. The Court further mandated that Russia guarantee civilians' unhindered access to safe evacuating routes, medical care, food, and other necessities and the unhindered movement of humanitarian personnel and aid supplies. There are currently four additional inter-state applications filed by Ukraine, over 8,500 individual applications filed by individuals regarding the events in the Sea of Azova, eastern Ukraine, and Crimea, as well as one application filed by Russia against Ukraine, all of which date from before the beginning of Russia's aggression in February 2022. However, the ECHR has previously adopted a restrictive stance regarding jurisdiction in circumstances of extraterritorial conduct committed during active hostilities. As stated in the Committee of Ministers resolution of March 23rd, 2022, on the legal and financial ramifications of Russia's withdrawal from the Council of Europe, the nation will also cease to be a

[18] Council of Europe. (2022, October 19). Russia ceases to be party to the European Convention on Human Rights. *Portal*.

member of all conventions and protocols that are only open to Member States as well as the Venice Commission. Moreover, the Committee of Ministers cut off all communication with Belarus. Being one of the few international organizations to which Russian human rights defenders might turn to seek redress for internal injustices, Russia's withdrawal from the Council has raised serious concerns among human rights organizations and Russian human rights defenders.
Regarding enforcing court rulings, Russia has a dismal track record. This includes numerous troubling rights breaches by Russian armed forces, especially in Chechnya. Nevertheless, there was an opportunity for applications to win enhancements or protections for people, which is now prohibited.

The EU is actively supporting the gathering of evidence with the crisis component of the NDICI Global Europe Instrument. In his statement, he left the door open for the future and urged the "Russian Federation to rapidly return to compliance with human rights, international law, and international humanitarian law." The Service for Foreign Policy Instruments' (FPI) prepared actions will support systems that efficiently maintain and archive data and proof of transgressions of international humanitarian law. This will involve aiding Ukrainian authorities in their efforts to find and locate people who have vanished or gone missing. Along with national and international justice actors, the project will be carried out. In order to assist in gathering proof of international crimes, the EU is also providing the EU Advisory Mission in Ukraine a role. Roberta Metsola, the president of the European Parliament, stated the institution's full support for the ICC's jurisdiction over and investigation of war crimes in Ukraine at the special plenary session on March 1st. The EU and its Member States "underline" that they will ensure that perpetrators of war crimes and human rights violations, including those who helped such crimes by way of propaganda, will be held accountable. Parliament calls for cooperation to gather evidence and the investigation of any war crime committed within the territory of Ukraine since February 20th, 2014. The suspension of Russia by the Council of Europe was also praised in the resolution. The HRC Commission of Investigation, the ICC inquiry, and the establishment of a special UN tribunal for the crimes in Ukraine were all strongly supported by the EP on April 7th, 2022.[19] The EP further demands that the ICC be given both material and financial support for its work, including as by allowing the EU Advisory Mission Ukraine to help with evidence documentation. The EP urged the leaders of the EU and other nations to keep Russia out of the G20 and other multilateral organizations that promote cooperation, such as the UN Human Rights Council. The EP had previously argued in resolutions that the country's human rights record should be a

[19] OHCHR. (n.d.). *Independent International Commission of Inquiry on Ukraine to the Human Rights Council: War Crimes Have Been Committed in Ukraine*. https://www.ohchr.org/en/press-releases/2022/09/independent-international-commission-inquiry-ukraine-human-rights-council

requirement for membership in the HRC. Also, the Parliament has long advocated for the Security Council's reform, including the elimination of member's veto power[20] in situations involving war crimes and crimes against humanity.

[20] *General Assembly Adopts Landmark Resolution Aimed at Holding Five Permanent Security Council Members Accountable for Use of Veto | UN Press*. (2022, April 26). https://press.un.org/en/2022/ga12417.doc.htm

2. The Western Response

2.1 Global Sanctions on Russia's Government

Following Russia's complete invasion of Ukraine in February 2022, many like-minded nations, including the EU, the US, the UK, Canada, Japan (G7 countries), Australia, Singapore, South Korea, Taiwan, Norway, and Switzerland, resolved to impose sanctions on Russia. Beyond North Korea, Russia now has the most sanctions in the world. However, even if the nations that make up the "sanctions coalition" account for more than half of the global economy, two-thirds of the world's people reside in nations that support Russia in the Ukraine War or are neutral. Significant trading partners like Turkey or the remaining BRICS nations (Brazil, India, China, and South Africa), as well as Russia's neighbours like Armenia and Central Asian nations, do not now apply sanctions. Currently, sanctions against Russia are multilateral rather than global, giving Russia plenty of leeways to import goods from a third country, reexport goods directly or indirectly, or create a bogus transit to get around the sanctions. Significantly, Russian exports to Brazil, China, India, and Turkey have grown by at least 50% compared to the previous year since the 2022 conflict started, while Turkish exports to Russia have climbed by 46%[21] in the six months following the introduction of sanctions. Parallel to this, the United Arab Emirates has maintained a sanctuary for *Russian business people* or officials otherwise subject to Western sanctions. However, Kazakhstan, the largest nation in Central Asia and until recently regarded as a Russian ally, recently made two potentially important decisions: increasing visa restrictions for Russian citizens and closing its commercial mission in Russia.

If there has been a legal violation, the responsible authorities in the Member States must determine it and take the necessary action. The implementation and enforcement of the rules imposing restrictive measures approved under Article 215 TFEU are the responsibility of the Member States, and the European Commission is in charge of coordinating their action. Providing guidance notes and best practices and responding to interpreting queries by competent national authorities also assists people, organizations, corporations, humanitarian workers, and Member States in their attempts to apply penalties. A whistle-blower mechanism for EU sanctions has also been designed by the Commission to gather data about violations of EU sanctions from all relevant sources while maintaining their anonymity where necessary. In order to effectively enforce EU sanctions on named Russian and Belarusian oligarchs throughout the EU, the Commission established the "Freeze and Seize" Task

[21] Nolsøe, E., Güler, F., Foy, H., Yackley, A. J., & Pitel, L. (2022, August 16). Surge in Turkish exports to Russia raises western fears of closer ties. *Financial Times*.

Force. It was done in order for the Commission to fulfil its coordination role. The Task Force comprises the Commission, national contact points from every Member State, Eurojust, Europol, and any other required EU institutions and authorities. It functions in four subgroups:

1. Asset reporting and reporting of frozen assets;
2. Sharing of best practices for criminal investigations and asset forfeiture;
3. The creation of a Common Fund for Ukraine;
4. Tax enforcement.

Along with the newly formed "Russian Elites, Proxies, and Oligarchs (REPO) Task Force," the task force collaborates with the G7 nations, Australia, and the EU. Under Article 83.1 TFEU, the Council decided in November 2022 to add the violation of sanctions to the list of offences that qualify as "EU crimes."[22] Shortly after, the Commission unveiled its proposal for a directive "on the definition of criminal offences and penalties for the violation of Union restrictive measures" to create uniform minimum standards across the EU, which was a vital step for putting the above judgment into practice. According to analysts, the directive, presently going through the ratification process, marks "a significant milestone in the harmonization of EU sanctions enforcement, as well as in the development of European criminal law more generally." In order to guarantee the implementation of the asset freeze prohibitions, the eleventh package of punishments (effective as of February 25, 2023) added new reporting requirements. In line with earlier proposals made by Mairead McGuinness, EU Commissioner for Financial Services and Stability, a group of Member States led by the Netherlands, have proposed creating centralized EU sanctions monitor to address sanctions enforcement and circumvention. Based on the severity of energy sanctions and countersanction measures taken by the EU and Russia, the evidence indicates that:

1. Energy sanctions will harm both parties economically; in the worst-case scenario, the EU's economic loss is 1.488%, the Russian loss is 4.8%, and there will be an increase in global inflation;
2. Russia's countersanctions will directly affect the EU's economy but will not improve it;
3. Energy sanctions will have a direct energy trade transfer effect, causing the EU's imports of energy to be diverted to non-Russian markets;
4. Russia's countersanctions Energy games will have a negative impact on the global effort to reduce carbon emissions and change the structure of energy usage.

[22] *European Commission proposes common definitions and penalties for EU sanctions violations | Perspectives & Events | Mayer Brown*. (2022).

According to mathematical studies of the effects of energy sanctions on society and the economy, the geopolitical crisis-caused energy game will affect both parties engaged and the global economy. The world pattern will shift back from the cooperative division of labour that characterizes development to a state of conflict and confrontation, which is incompatible with transforming energy commerce and consumption under market rules.

Geopolitical risks (GPRs) will directly affect energy trade, leading to energy security (Liu et al., 2021). The industrial production of human society is highly dependent on fossil energy consumption. Still, the geological distribution of fossil energy determines that the world's energy consumers and suppliers are in a state of separation. Therefore, geopolitical turmoil in energy-exporting regions directly affects the energy security of the world's energy-consuming countries (Inshakov et al., 2019, Vasylkivskyi et al., 2020). Many scholars have conducted detailed research on energy security issues arising from geopolitical conflicts (Ang et al., 2015, Bompard et al., 2017, Kruyt et al., 2009). These studies focus on several aspects. One is the impact of geopolitical conflicts on energy trade (Inshakov et al., 2019, Liu et al., 2021). The second is the impact of geopolitical conflicts on energy prices (Gong et al., 2022, Liu et al., 2019, Zhang et al., 2022). The third is the counter-effect of energy consumption structure transformation on geopolitics (Dutta and Dutta, 2022, Salameh, 2014, Su et al., 2021). The research on the impact of geopolitical conflicts on energy trade is mainly carried out from two aspects. First, suppose the regional geopolitical risk of the energy-consuming country occurs. In that case, it will lead to a decline in its energy demand, triggering a reduction in the country's dependence on global energy trade. Geopolitical conflicts in such energy-consuming countries have a relatively limited impact on international energy trade (Lee et al., 2017). On the other side is the geopolitical conflict between energy exporters. Political instability in energy-exporting countries can directly impact global energy supply through supply chains such as energy output and transportation (Yang et al., 2014). In GPRs research, a more critical research direction is the impact of GPRs on energy prices and will combine oil price fluctuations with the energy security of energy-importing countries. However, there are still differences in academic research on the mechanism of GPRs on oil prices. Cunado et al. (2019) show that only a higher GPR drives up oil prices through dynamic research on GPR versus actual oil returns between 1974 and 2017. Noguera-Santaella (2016) found through an analysis of essential oil price fluctuations and interventions in different geopolitical events that geopolitical events had different impacts on oil prices in 2000. With the conclusion of carbon emission reduction agreements around the world, the world's major energy-consuming countries have begun to change their energy consumption structure, gradually increasing the proportion of renewable energy and reducing fossil energy consumption (Vakulchuk et al., 2020). The transformation of the energy

structure has had a considerable impact on the world's geopolitical conflicts. Since 2010, many scholars have noted that renewable energy consumption may bring new geopolitical conflicts. Scholars' research views on this issue are also divided. On the one hand, they believe that the energy transition is unlikely to reduce energy-related conflicts (Escribano, 2018, Freeman, 2018, Hurd et al., 2012, Jacobson et al., 2017, Raman, 2013). The other side believes that energy-related conflicts will decrease as the energy transition deepens and the proportion of energy self-sufficiency in countries gradually increases (Pierri et al., 2017, Scholten and Bosman, 2016, Smith Stegen, 2018), the increased use of renewable energy reduces the influence of oil and gas exporters in global politics (Su et al., 2021).

The impact of geopolitical conflicts on capital markets and social welfare is also an important theoretical and empirical research direction. Energy price fluctuations have a heterogeneous effect[23] on importing and exporting countries. For energy-consuming countries, rising energy prices mean higher production and transportation costs while affecting capital market liquidity through inflation and interest rates, reducing social welfare levels (Antonakakis et al., 2017). On the other hand, energy suppliers have seen rising incomes, leading to higher domestic consumption, investment, and productivity, more liquidity in capital markets, and higher overall social welfare (Apergis et al., 2015). At the same time, GPRs have a significant impact on market sentiment, investment, and decision-making behavior in energy markets, and these effects are ultimately reflected in energy price fluctuations (Humphreys, 2005, Ji et al., 2019a, Ji et al., 2019b).
Unlike the past world energy security problems caused by GPRs, this contest between the EU and Russia in the energy field will likely reshape the world energy trade pattern.

Russia plays a crucial role in the global energy supply chain as a nation with relatively large energy reserves. According to data released by the Russian Federal Customs Service, the outbreak's impact resulted in a substantial decline in worldwide oil demand in 2020. Energy exports have decreased by 36.6% due to production restrictions undertaken by Russia and Saudi Arabia, which have caused oil and gas exports to reach new lows. Despite a substantial decline in energy consumption, Russia's export trade still had the most significant percentage of energy commodities, which declined from 62.1% in 2019 to 49.6% in 2020. In other words, exporting energy-related goods continues to dominate Russia's foreign trade system. By the end of 2020, crude oil represented 47.51% of Russia's overall energy trade value, making up the largest share of all energy kinds, followed by the export of crude oil

[23] Jung, S. (2021). The Impact of Geopolitical Risk on Stock Returns: Evidence from Inter-Korea Geopolitics. *Imfsg*.

products, which comprised 30.62% of the total. Most of Russia's crude oil export destinations are in Asia and Europe, with 53.05% and 45.22% of the country's total oil export value[24] going to each region. China is the biggest consumer of Russian crude among Asian markets, taking up 32% of the country's exports. In continental Europe, the Netherlands and Germany each import 12.4% and 8.57% of Russian crude oil, respectively. Russian crude oil products' export trade structure relies more on the European market. The value of Russia's crude oil exports to European nations made up 60.37% of the overall export value, while exports to Asia made up 26.59%. The Netherlands, France, and Germany each imported 6.08%, 14.1%, and 4.62% of Russia's exports of refined oil, respectively. The European market, which consumes 71.92% of Russia's petroleum gas, is more critical for the country's petroleum gas export business. The Asian market receives practically all of the remaining petroleum gas. Compared to the top three energy commodity destinations, coal exports are more distributed and of relatively lower value. According to an examination of the country's energy trade structure, Russia's primary markets for its energy trade are Europe and Asia. Currently, the European market is more significant than the Asian market.

The EU's energy sanctions against Russia will cause a dramatic change in this energy trading arrangement. The conditions of commerce with Russia have been negatively impacted by the sanctions imposed by the EU and G7. Although Russia's counter-sanctions have achieved their policy goals, there is a cost involved that has harmed their offspring. Consider a scenario in which the EU rigidly enacts energy sanctions against Russia, ultimately suspending energy trade between the two parties. If so, it will have a profoundly unfavourable effect on the relationship between the two sides. The prolonged energy supply constraint in the EU will have a ripple impact on trade in other EU industries, including energy-intensive industries, agriculture, chemical industries, etc., and the EU's overall situation will worsen. The EU and Russia's energy competition has increased global oil prices, which has benefited more energy exporters by increasing their energy exports and profits. The EU has lowered tariffs on energy imports from other nations in proportion to filling the energy gap, which has helped other nations' economies to some extent.

Regarding how energy sanctions affect the import and export commerce between the two parties, sanctions and countersanctions substantially influence exports for Russia and imports from EU member states.

[24] Waguespack, K. (2023, April 24). To Replace Russian Products, Europe Turns to Asia, Mideast. *RBN Energy*.

Applying sanctions to member states' energy imports will immediately lower the EU's overall energy imports.[25] Energy import limitations will emerge as the most significant unknown threat to the EU's energy security, given the practical challenge the EU has in modifying the energy trade structure in the short term.

[25] Euronews. (2023, February 24). Europe's 'energy war' in data: How have EU imports changed since Russia's invasion of Ukraine? *Euronews*.

2.2 The Price Cap and Oil Embargo

Oil, gas, coal, and nuclear energy are significant in the Russian economy. The Russian economy now depends even more on energy sector exports due to the broad sanctions and the withdrawal of numerous Western corporations from Russia in 2022.

Nearly half of Russia's fiscal earnings come from oil. The price of Urals oil has also changed a lot in recent years; from September 2020 to November 2021, it was approximately $40 to $45 per barrel (bbl), which then increased gradually after that, surpassing $90 per barrel by mid-February 2022. By the end of March 2022, the oil price briefly rose beyond US$120 per barrel before tumbling to US$90 per barrel due to the Russian invasion of Ukraine and discussions about an oil embargo. The average oil price for export from April to August 2022 was US$79 per barrel. As a result, the Russian government projects that the country's oil export revenue will reach $218 billion in 2022. Before entering Ukraine in December 2021, Russia was exporting 7.8 million barrels per day of all petroleum products, of which 5 million were crude oil, and the remaining were refined products. These export levels were comparable to those prior to the COVID-19 epidemic. Of those, around one-third (or about 2.4 million barrels per day) were exported to Europe, where Russian oil is most frequently purchased. The EU implemented a phased prohibition on the purchase, import, or transfer of crude oil (effective as of December 5th, 2022) and other refined petroleum products (effective as of February 5th, 2023) in June 2022, as part of the sixth package of sanctions, with a few exceptions. It led to a decrease in EU imports of about 1 million barrels per day or 10% of total EU oil demand. The remaining imports totalled about 1.2 million barrels of crude shipped by sea and 0.8 million barrels of crude transported by pipeline. Although the embargo decreases purchases from a significant client of Russian oil, Russia can still sell (and profit from) as much oil as before by finding new customers [26] (such as China or India).

The world oil market is now tight and expected to remain so, and the Russian oil supply plays a significant role. It is so because most OPEC+ members are not meeting their production levels, and OPEC+ decided to lower output targets by 2 million barrels (MMbbls) per day from November 2022 until the end of 2023. Therefore, attempting to cut off Russian oil supplies could have a limited supply, increasing global oil prices, which would badly affect the EU and other nations in an international economic backdrop marked by inflation and the prospect of a worldwide recession. The Council decided to forbid the maritime transport of Russian crude oil (as of December 5th, 2022) and petroleum

[26] *EU sanctions on Russia: Overview, impact, challenges*. (2023). European Parliament.

products (as of February 5th, 2023) to third countries, as well as the related provision of technical assistance, brokering services, financing, or financial assistance, on October 6th, 2022, as part of the eighth package of sanctions. When implementing the decision in the eighth package of sanctions, the Council agreed to set an oil price cap at US$60 per barrel for crude oil, petroleum oils, and oils made from bituminous minerals produced in or exported from Russia. The cap's amount, which takes effect on December 5th, 2022, was decided in close consultation with the G7 "Price Cap Coalition" (the EU, the US, the UK, Canada, Japan, and Australia). The mechanism will be set at least 5% below the average market price for Russian oil and petroleum products, with its operation being reviewed every two months to reflect changes in the market. The ruling established a 45-day transition period and permitted additional 90-day transition periods following any modification of the price cap. The price cap's goals are to 1) lessen Russia's oil revenue (see above), even when it sells to other buyers (like China), and 2) prevent a significant rise in oil prices around the world.

The parties aim to utilize their dominance in specific services, such as US banking services, British shipping insurance, or Greek shipping services, which are crucial for oil delivery worldwide, to execute the price cap. To put this into practice, a cartel of purchasers or service providers takes place, and the procurement of Russian oil is constrained to prices below US$60 per barrel. The Council resolved to implement two more price limitations on February 4th, 2023, but they would apply to petroleum products this time. These goods can be divided into two groups. The first category consists of goods (such as fuel oil) that trade at a discount to crude oil. The price cap for certain goods is established at US$45 per barrel. The second category consists of petroleum products like diesel, jet fuel, and gasoline sold at a premium to crude. The ceiling for certain goods is fixed at US$100 per barrel. The remarks below apply to these two new caps as well.

In the meantime, Russia did nothing. Russia had time to get around these challenges because the cap and ban were only implemented later in the year after being negotiated since April 2022. To carry its oil without EU mediators, it purchased roughly 100 outdated tankers[27] meant for scrap, and the Russian government has started offering sovereign insurance to avoid UK shipping insurance companies. The Russian government is taking a risk by insuring supplies even if the country's economy suffers from international sanctions. At the same time, this tanker build-up has been gradual. The volume of oil smuggling by "ghost ships" is another unknowable. The coming months will be an actual test of how well the cap is doing. The policy must considerably reduce Russia's oil revenue to be considered successful. Already, there are two signs that this is taking place. In December 2022, Brent prices fell under US$80 per barrel and stayed there until January 2023. The average price of Urals oil in

[27] *EU Russia Tanker Ban Threatens Supply Crunch*. (2022, August 16). Energy Intelligence.

December 2022 was US$50.47/bbl (it had already been trading at a considerable discount to Brent since the invasion of Ukraine), and by early January 2023, it had fallen to under US$40/bbl at the Baltic port of Primorsk. Since the start of 2022, Russian enterprises' freight expenses have climbed more than fivefold, reducing their profit margins. According to preliminary estimates, the EU's restriction on importing crude oil and the oil price ceiling costs Russia about €160 million[28] per day (with further measures, this cost will likely increase to €280 million per day). The measures' effectiveness and inability to be evaded will be a strong indicator of how well the policy is performing. On the other hand, the proposal would fall short if the cap results in a rise in world oil prices, which might happen if traders, insurers, or transportation companies refuse to deal with Russian oil, even if it is sold for less than US$60/bbl. The outcome might be a significant decrease in Russian oil accessibility on the international market, raising costs for everyone. If Russia's oil sales income continues to be high, the approach will likewise be ineffective. There are various ways that this may occur. The first is simple and involves under-compliance by nations or businesses that abide by the ban's general terms. The reorganization of supply chains for the sale of Russian oil to third parties without using any of the services offered by the CIP coalition (such as trading, commodities brokering, financing, shipping, insurance, flagging, and customs brokering) would be another. Another failure scenario involves third countries (such as Turkey, India, or China), which have significant refining capacity and high domestic demand, buying Russian oil products for their domestic markets and then exporting domestically-refined goods based on Russian imports to the EU or the US (something that has already begun to happen, though it is unclear whether it will continue given the February 2023 refined product cap). Finally, the scheme may only succeed if Russia attempts to circumvent the price cap by reducing the volume of its exports. Officials from Russia have frequently stated that they will not accept a price cap and have vowed to stop cooperating with anyone who does so, even if doing so results in a reduction in oil production and a corresponding decrease in economic output. As promised, Russia announced in early February 2023 a reduction in oil production of 500 000 barrels per day (or around 5% of output) starting in March 2022. This "nuclear option" is being offered to raise prices. However, it is still being determined how this approach will turn out, particularly if third-world nations disagree, like China or India, which have benefited from the low prices despite Western sanctions.

[28] Centre for Research on Energy and Clean Air. (2023, February 10). *EU oil ban and price cap are costing Russia EUR 160 mn/day, but further measures can multiply the impact – Centre for Research on Energy and Clean Air*.

2.3 The Effects of Sanctions on Russia's Economy

With nearly one year worth of observations and data, Western countries were evaluating the effects of the sanctions, balancing the dangers of applying further penalties to Russia and thinking about how the sanctions can conceivably help end the war.

The sanctions have had a significant short-term financial impact on Russia's economy, but this impact has subsided after May 2022. After the initial round of sanctions, which included freezing about half of the central bank's foreign reserves, the Central Bank of Russia (CBR) gave stabilizing the exchange rate top priority. The CBR increased interest rates and enforced capital controls. After the invasion, the ruble had a more than 40% decline against the dollar, but by late April, it had recovered. It had risen above its prewar level, despite no longer being a fully convertible currency. After the conflict began, the CBR doubled its benchmark interest rate to 20%, but starting in mid-April, the CBR gradually lowered the rate. Rates and banking sector liquidity had recovered to prewar levels by mid-June.

Most experts predicted that Russia's GDP would decline by roughly 10% last year and 1.5% this one. From mid-February to early May, Russia's official consumer price index increased by about 11%. Since then, it has mostly remained unchanged, thanks in part, most likely, to the strengthening ruble, which has helped keep import costs low despite shortages. According to purchasing managers' indices, the industrial sector showed a lesser decrease in March and rose in May. In contrast, the service industry in Russia shrank significantly in March and continued to shrink moderately as of May.

The loss of international businesses and talented Russian workers and restricted access to imported technologies will negatively impact Russia's economy. According to the U.S. Department of Commerce, 38 countries have implemented export bans, resulting in a 90% decrease in worldwide chip exports to Russia. Even though it is not legally mandatory, many foreign businesses are "self-sanctioning" by scaling back operations or leaving Russia. By mid-June, according to estimates from Yale University's School of Management, which monitors more than 1,350 international corporations operating in Russia, 12% were cutting back on activities, 35% had suspended them, and 24% had declared their complete withdrawal.[29]

Russia last released trade data in January. However, from January to May, the country's current account surplus (income from goods and services trade and commerce) reached a record high of $110 billion due to declining imports and rising commodity export values. According to information from

[29] Over 1,000 Companies Have Curtailed Operations in Russia – But Some Remain. (2022). *Yale School of Management*.

its trading partners, Russia's imports declined significantly in March and April. The above is having an impact on industrial production, including that of military hardware, and disruptions are likely to get worse as imported part stockpiles get depleted. Official Russian manufacturing numbers point to a slight decline in output in April, while vehicle production fell by 85% year over year, indicating a shortage of foreign inputs.

Russia continues earning money from its energy exports despite the sanctions freezing most of its foreign assets. Despite declining oil production in April, oil and gas income comprised 47% of Russian federal revenues from January to May. However, revenue from oil and gas surged by 80%. Oil and gas exports continue to bring in around $1 billion per day for Russia, with almost half of that money going straight to Moscow. In contrast, the most recent accessible Russian fiscal data indicates that Moscow spent $325 million[30] daily on military expenses in April.

The oil and gas profits lessen Moscow's dependence on other domestic revenue streams. As the Russian government's balance sheet was healthy coming into the conflict, with public debt at $284 billion, or only 16% of 2021 GDP, reduced oil exports would not have a catastrophic effect on Moscow's financial situation. The restrictions hindered the Russian government from borrowing from foreign markets. However, despite media speculation about a possible default on Russian sovereign bonds, Moscow did not rely on external borrowing even before the war. Only one-third of the $62 billion in external debt due by the Russian government last year was in foreign currency. Additionally, the National Wealth Fund of Russia, which gets surplus oil and gas earnings, has assets worth close to $200 billion, of which half are in usable currency, renminbi, or gold assets.

Although they diplomatically denounce Russia's invasion, developing or emerging market economies typically oppose the sanctions, in contrast to the advanced economies in the West. Since corporations in third countries are afraid of secondary sanctions, there have not been many signs of sanctions violations thus far, including from Chinese companies. Banks, including those in India, have been wary even when dealing with sanctioned Russian banks for the permitted energy trade.

China, Russia's most significant economic partner in 2017, reported a 42% drop in shipments to Russia in dollar terms from March to May compared to the prior three months. Except for Turkey, where exports bounced back in April, other significant emerging market economies are on track for similar reductions.

Some nations likely trade with Russia in their currencies rather than the US dollar. However, such transactions are challenging to manage due to a lack of liquidity, the volatility of currency exchange

[30] Reuters. (2023, May 15). Russia's defence spending jumped 282% y/y to $26 bln in Jan-Feb -budget data. *Reuters*.

rates, and concerns over secondary sanctions. Earlier this month, Sberbank stopped processing settlements in Chinese Yuan and is currently having trouble handling transactions in Indian rupees. According to reports, India has updated its proposal to settle commerce with Russia in Indian rupees rather than face dollar penalties since it still wants Russian oil and weapons. About $4 billion was traded in the ruble/yuan currency pair in May.

China and India have primarily purchased Russian oil transported by water that would have otherwise gone to Europe. Russian seaborne oil exports have remained stable, with about half of the country's tanker-borne oil shipments now going to Asia. In order to counteract the rise in global oil costs since the start of the war, importers are taking advantage of the $35 per barrel discount on Russian crude oil. Russia became China's top oil supplier in May, surpassing Saudi Arabia. For a six-month contract to enhance their oil imports from Russia, Indian oil refiners are looking. The sixth round of sanctions imposed by the European Union, which forbids importing Russian petroleum products after six and eight months, respectively, would significantly affect whether or not Russian oil shipments are reduced depending on China's and India's capacity to absorb Russian oil.

Western governments are discussing new sanctions to lessen Russia's oil income while preventing interruptions to global energy flows, which would raise prices. Additional financial penalties against Russian banks like Gazprombank[31] are possible, but doing so might stymie the global energy market. With additional energy supplies from elsewhere, balancing these two objectives is easier because decreasing prices through demand destruction would be painful politically and economically.

The ban on Westerns insuring tankers carrying Russian oil is one proposal that is likely to become law. Commercially, insurance on ships is necessary. Such a prohibition on insurance is a part of the plan since the sixth round of sanctions from the European Union. A similar prohibition has been approved by the UK. Uncertainty surrounds the impact of a shipping insurance prohibition. Some believe the insurance restriction will significantly reduce Russian oil exports and drive-up prices, including Washington officials. Others claim that importing nations may provide their insurance with minor price impacts, potentially with Russia providing reinsurance for the shipments.

The coordination of oil purchases by nations allied against Russia and establishing a ceiling price for Russian oil are additional potential solutions. While the oil flow would be unaffected, Moscow's earnings from such shipments would be less. This concept might be considered at the G7 summit in Germany in late June. Countries that adhere to the price cap may be granted a dispensation from the

[31] Kowsmann, P., & Osipovich, A. (2022, March 11). Gazprombank: The Big Russian Lender That Dodged Western Sanctions. *WSJ*. https://www.wsj.com/articles/gazprombank-the-big-russian-lender-that-dodged-western-sanctions-11646996338

prohibition on shipping insurance under the plan. According to German officials, such a strategy would be challenging to coordinate among members and call for reconsidering the sixth round of EU penalties. Additionally, non-participating nations could propose to pay Russia a higher market rate. Secondary penalties must be imposed on nations like China and India to enforce a price cap internationally.

Thirdly, energy importers could impose significant taxes on Russian energy. The tariff earnings might be utilized to aid Ukraine or pay for domestic aid programs. The fact that buyers rather than sellers would pay tariffs indicates that this would only harm Russian revenues if it led to a net decrease in the country's energy exports. Price hikes would result from this.

Each case emphasizes Russian oil rather than natural gas because replacing the latter would be more difficult for Europe. In response to these steps, Moscow may halt gas exports to Europe or refuse to sell oil at the price cap, thus calling the coalition's bluff. It may already be taking place since Russia's Gazprom reduced gas deliveries through the Nord Stream pipeline, purportedly due to its inability to procure critical parts due to sanctions. Moscow may have reasoned that the pain experienced by Western nations as energy prices rise further higher would be more painful than the short-term loss of oil and gas revenue to Russia.

Political decisions are made based on economic sanctions. Inflation in the US is at a 40-year high, and commodity prices are already high, so Washington is unlikely to take any moves that will increase inflation[32], especially before the November elections in the US. Inflation is the White House's primary concern, and it has been stated. Particularly in Washington, home agendas are likely to take precedence because domestic and foreign goals have converged. The goal will be to keep the Western alliance supporting Ukraine strong. This coherence may be at risk if additional inflationary pressures, whether sanctions, exogenous shocks, or Russian reprisal, bring them on. As a sign to Beijing, where President Xi Jinping is steadfast in his commitment to his alliance with President Vladimir Putin, such unity is equally crucial. A rise in imports from China, especially, could indicate that Russian businesses are finding alternatives from "friendly countries" and that the effects of sanctions are waning. Even if they are Chinese, sanction violators should face punishment. Therefore, Western governments should be on guard.

How, if at all, sanctions will help put the war to rest is a crucial strategic matter. Supporters of additional sanctions, particularly those related to energy, believe that pressures on the economy and

[32] *The Future of Inflation Part I: Will Inflation Remain High?* (2022, April 12). IMF.

accompanying inflation may persuade Russia to end the conflict. Critics highlight the historically dismal record of overthrowing authoritarian regimes, particularly during a war.

Prior to the invasion, perhaps more potent and precise, threats of sanctions could have dissuaded Russia, but using penalties to force Russia to cease the conflict today looks unlikely to be effective unless Moscow perceives the battlefield as dire[33]. The current sanctions, particularly export bans, may help Ukraine win the war by making Russia's capacity to resupply its forces more complicated. However, in the end this is a war, and the battlefield is likely to be the place where a resolution is reached.

[33] The Economist. (2023, March 2). Russia's sanctions-dodging is getting ever more sophisticated. *The Economist*. https://www.economist.com/finance-and-economics/2023/03/02/russias-sanctions-dodging-is-getting-ever-more-sophisticated?gclid=CjwKCAjw1MajBhAcEiwAagW9MT50qXo2mpQAzc1LykwKGESIYa-BpP_WCQ1jhlNRtNwhXdXRLY8sSBoCnjwQAvD_BwE&gclsrc=aw.ds

3. The European Union's Perspective

3.1 European Dependence on Russian Natural Gas

Nearly 38% of the natural gas that the 27-member European Union presently imports comes from Russia; if European members execute their already stated energy plans, this dependence would grow dramatically. If different energy policies are not implemented, reliance on Russia will increase to 50% to 60%[34] of all gas imports within the next two decades due to plans to phase out nuclear power in several European countries. The EU aims to reduce coal consumption to reduce greenhouse gas emissions and the depletion of domestic gas sources. Due to their growing reliance on Russian natural gas, the EU and the rest of Europe may soon find themselves in a very hazardous situation. Now is the time for these nations to collaborate and create an effective diversification plan.

The current EU energy strategy is progressive in its goals for renewable energy, cost-cutting, and emission reduction. However, it must acknowledge the security threat posed by the region's growing reliance on Russian hydrocarbons, particularly natural gas. In order to provide a longer-term, more balanced approach to addressing energy needs. This is the kind of strategy that Europe needs to pursue, not just because relying too much on any one supplier is terrible policy but also because an unreliable Russian administration has been trying to dominate the European market for years. A Russian monopoly on the European gas market would give the Russian government tremendous clout in negotiations with its neighbours. The freedom of action in several European governments has already been severely hampered by Europe's reliance on Russia for natural gas, and this situation will only worsen as time goes on. Many variables may hinder Russia's ability to control the natural gas markets in Europe. These issues are also covered in this article, specifically concerning the potential measures broader Europe could take to prevent Russia from achieving its objective of regaining coercive influence through its "energy weapon."

Worldwide, natural gas use is essential, and Europe is no exception. The EU consumes 17% of the world's energy and the same amount of natural gas produced each year globally.[35] When energy consumption is broken down by source, the EU uses 43% of its energy from oil, 24% from natural gas, 14% from coal, 13% from nuclear power, 4% from hydroelectricity, and 2% from other renewable

[34] *Liquefied natural gas*. (2022). Energy.

[35] *Europe Must Simultaneously Replace Russia's Fossil Exports and Accelerate Its Clean Energy Deployment*. (2022, May 6).

sources like geothermal, biomass, wind, and solar. Contrary to popular belief, the bulk of electricity is produced by burning hydrocarbons, which warm water and create steam, which drives turbines. The production of electricity from hydroelectric, nuclear, and renewable sources is far lower than that of gas, coal, and oil. Natural gas is also the favoured hydrocarbon for producing electricity because it burns the cleanest and costs about as much as coal. Domestic natural gas applications for heating, cooking, and cooling arguably have the highest reputation among consumers; residential usage makes up around 22% of total natural gas consumption.

Natural gas is used in numerous industrial applications in addition to producing commercial power. Because it is a cheap source of butane, ethane, and propane, it serves as the foundation for numerous chemical goods, fertilizers, and medications. In addition, it serves as the primary component of many polymers, textiles, and antifreeze products, and in compressed form, it serves as a fuel for combustion engine vehicles. Although there are few natural gas filling stations, European public transportation is moving more toward this cleaner-burning fuel than diesel and gasoline. Most energy predictions indicate that natural gas will increase to around one-third of the overall European energy mix by 2030, almost catching up to oil in relative importance due to its many uses, favourable price compared to renewables, and benefits in emission control.

Oil trades at market prices that vary relatively modestly globally (3.7% in 2005)[36], primarily due to the potential of pipeline and container vessels. Contrarily, gas can only be cheaply delivered in its natural state via pipeline, making it far more subject to regional pricing (31% price variation by location in 2005). As a result, the price of natural gas is highly fragmented; its cost varies widely due to some aspects, such as a wellhead, long-distance transportation, and local distribution costs.

It is possible to liquefy natural gas by chilling it to 260°F (162°C), which 600 times reduces its volume and makes it transportable by container ship. Due to the high cost of this procedure, liquefied natural gas (LNG) is often only used to augment pipeline gas in most economies. Natural gas must be liquefied in extensive facilities, or "trains," where only economies of scale can make the operation profitable. This further restricts the ability to export and import LNG to producers and consumers who can afford to invest in terminals worth several hundred million dollars. Pricing is further complicated and distorted because some liquefied natural gas is lost during container ship shipping owing to evaporation. While pipeline gas is also lost in transportation due to inevitable pipeline leaks, LNG

[36] *The Structure of the Oil Market and Causes of High Prices*. (2005, September 21). https://www.imf.org/external/np/pp/eng/2005/092105o.htm

transport's economics are more influenced by the length and duration of shipping, which exacerbates the trend for price regionalization in both the gaseous and liquid forms of the commodity.
Natural gas is often sold in Europe on long-term contracts lasting up to 25 years,[37] with only three major external suppliers. The contracts often require the buyer to buy a certain minimum quantity, safeguarding the producer, who must make significant investments in pipelines, pumping stations, and storage facilities in addition to exploration. The market's willingness to pay compared to the cost of alternative fuels mainly determines the price of natural gas in Europe. Oil prices affect gas costs since it is the closest equivalent to natural gas. Because long-term gas contracts typically incorporate variable pricing to account for fluctuations in the price of petroleum goods, the enormous rises in oil prices over the past few years have been accompanied by equivalent increases in the price of natural gas throughout Europe. This regionalization of prices due to the challenges associated with substituting LNG for pipeline gas and the overall reliance on a small number of long-term gas suppliers show how much more sway a gas provider has over an oil producer when determining the terms of pricing. Natural gas pricing will remain fragmented until LNG become a global commodity like oil with more affordable tanker transport. Nevertheless, the magnitude of regional price disparities is gradually waning.

A significant regional gas exporter can determine prices instead of taking them because of the aforementioned factors. The Russian Federation is unparalleled in terms of gas production and export. 22% of the natural gas produced worldwide in 2005 came from Russia. Russia holds 27.5% of the global reserves of natural gas, or 47.55 trillion cubic meters (m3). Iran, with 15.9% of global reserves, and Qatar, with 14.9%, are the closest regarding proved resources. Four per cent or more of the world's gas reserves come from no other nation. Russia has the same amount of natural gas reserves as Saudi Arabia, which holds 25% of the global oil reserves. Due to regionalized natural gas pricing, Russia enjoys significantly more negotiating power than the average energy producer due to its strong position in the European market.

The European Union (EU) imports hydrocarbons to meet 50% of its energy needs. According to projections, these imports will account for 70% of all energy used in the EU within the next 20 or 30 years. Many variables cause the rising reliance on outside sources of hydrocarbon energy at once. Most of Europe's oil and gas reserves are either exhausted or on the decrease, which is the first of these. The

[37] Kim Talus, Long-term natural gas contracts and antitrust law in the European Union and the United States, *The Journal of World Energy Law & Business*, Volume 4, Issue 3, September 2011, Pages 260–315i,

chances for domestic production in Europe (except Russia) are nonexistent because many nations have no reserves. Only Norway and the Netherlands offer a slight intra-European offset to absolute dependence, accounting for 1.4% and 1% of global natural gas reserves, respectively; however, an unproven allegation of a sizable gas deposit in Hungary could marginally change the market dynamics in Central Europe.

While domestic natural gas supplies are decreasing in continental Europe, coal is still widely available. The combined recoverable coal reserves of Poland, Serbia, Germany, and the Czech Republic total more than 47 billion tons. The increase in the use of coal for electricity production is prohibited by the Kyoto Protocol's carbon dioxide emissions targets. According to the Kyoto Protocol, the EU's 15 member states must reduce their greenhouse gas emissions by 8% compared to 1990 levels between 2008 and 2012. Despite the relative abundance of coal, particularly in Central Europe, natural gas becomes the fuel of choice to meet energy demands while reducing emissions because it burns the cleanest of the hydrocarbons.

However, significant social and political opposition exists to using nuclear power in nations like Austria, Denmark, Norway, Portugal, Spain, and Sweden. Nuclear power also provides a significant offset to electricity produced from gas. Germany's decision to abandon nuclear power by the end of this year will significantly increase its reliance on hydrocarbons, particularly natural gas, to produce electricity during the next ten years. The extent to which this source can lessen reliance on hydrocarbons from other countries is demonstrated by France's choice to strengthen its nuclear power generation industry in 1973-1974 in the wake of the first oil crises. France is anticipated to save €13.5 billion in 2006 by depending less on imported natural gas and decreasing CO2 emissions by 128 million tons. France has 56 nuclear reactors that produce 430 terawatt-hours annually. The effects of a nuclear diversification plan are well seen by comparing the electrical sectors of France and Germany. In 2003, France used 433.3 billion kWh compared to Germany's 510.4 billion kWh, or 85% more electricity. Only 8.2% of France's electricity was produced from fossil fuels, making up the remaining 77%. Germany used 61.8% fossil fuels and 29.9% nuclear energy. Compared to Germany's imports of 85 billion m3 of natural gas, France imported 40 billion m3[38]. In essence, Germany imports natural gas yearly at the cost of nearly 1% of its GDP. This number will considerably increase if Germany gradually phase-outs nuclear power.

Although development has been gradual in Europe due to financial constraints-renewables now cost more than conventional ways of generating power-renewable energy sources provide excellent

[38] Nuclear energy statistics. (2022). *Eurostat, Statistics Explained*.

potential for diversification from electricity supplied by gas. The average cost of producing one kWh of electricity from gas-powered and nuclear power plants is 3.2 cents; the comparably polluting cost of producing electricity from coal-fueled power plants is 3.7 cents. Compared to gas, coal, and nuclear energy, the cost of electricity a wind turbine generates in an average wind position is roughly 8 Euro cents per kWh. Natural gas is the apparent option for electricity generation while simultaneously reducing pollution levels because other renewable types of electric power generation are considerably more expensive.

Only three external producers (Russia, Norway, and Algeria) produce most of the natural gas used in the EU. Russia is by far the largest gas supplier to the continent, contributing 37.7% of the total gas imported by the EU 27 in 2005. In general, the dependence on Russian gas imports increases the further east one travels in Europe, to the point that seven former Warsaw Pact and Soviet Union member states in Europe import more than 99% of their natural gas from Russia. Nearly all of the nations in Central and Eastern Europe rely on Russia for the majority of their natural gas needs.
Looking forward to 25 years, it is predicted that 80% of the natural gas used in the EU will be imported, with up to 60% coming from Russia[39]. What above translates to one-fifth of the EU's overall energy mix supplied by Russian pipeline natural gas. This amount does not account for the oil the EU will import from Russia, which is expected to make up another 10% of the total energy mix. Therefore, Russia will be able to use its energy supplies as levers of control by imposing terms because it is the world's most significant natural gas price-setter and will be supplying one-third of the EU's energy in 2030. The negotiations with Belarus and Ukraine at the end of 2006 and the beginning of 2006 demonstrate the enormous economic and political clout that Russia enjoys with nations who depend on it for their energy.

Nowadays, the term "the EU and Russia are mutually dependent on one another, respectively, as buyers and suppliers of energy" is frequently used in European political discourse. The problem needs to be more concise by this popular wisdom, maybe to make the information more appealing to EU voters. Realistically, Russia will control this relationship until the EU nations make genuine, coordinated efforts. Energy consumption is not price elastic, especially in highly developed economies. Demand will continue to be high practically regardless of price, and if offered the option of living in a chilly, gloomy home or paying high costs, Europeans will choose the latter.

[39] *Europe's Dependence on Russian Natural Gas: Perspectives and Recommendations for a Long-term Strategy*. (n.d.). George C. Marshall European Center for Security Studies. 0

The mutual dependency idea[40] promoted by European politicians also disregards Russia's use of these hydrocarbon funds, primarily accumulated in an oil stability fund. Since these revenues are not used for non-discretionary spending, it is clear that Russia would be more resilient to interruptions in these revenue streams than their European customers would be.

[40] *Russia and Europe: Mutual Dependence in the Energy Sector - Elcano Royal Institute*. (2021, November 15). Elcano Royal Institute. https://www.realinstitutoelcano.org/en/work-document/russia-and-europe-mutual-dependence-in-the-energy-sector/

3.2 The Italian Energy Mix

The global scenario is ruled by the extreme tensions and uncertainties generated by the Russian invasion of Ukraine. The impact on economic activity is a bottomless supply shock, which is currently difficult to quantify as the scenario evolves. The military crisis, moreover, comes on top of a framework already made difficult by the ongoing pandemic, upward pressures on various commodity prices, and production bottlenecks in some global supply chains. The effects of the crisis at a global level are strongly heterogeneous across areas and sectors, based on proximity to the conflict, dependence on oil, gas, and other commodities, and, in general, production and financial connections with the countries directly involved in the war (Russia, Ukraine, and Belarus).

Among the main macro-areas, the European Union is the most affected, as shown by the depreciation of the euro and the losses recorded on the main financial markets in the first days of the conflict. Among the most affected sectors are energy-intensive, such as metals, chemicals, ceramics, and glass, and other highly internationalised sectors, such as transport (motor vehicles, aircraft, boats).

The impacts of the war shock on productive activity, both direct and indirect, already visible or expected, well identifiable or uncertain in intensity and duration, are multiple. In this regard, a quick survey conducted on Confindustria member companies shows relevant first-hand evidence of the pervasive effects of the war on the Italian production system. In this regard, a quick survey conducted on around 2.000 companies associated with Confindustria shows first-hand information on already pervasive effects on the Italian production system in the first month since the start of the conflict.

The main consequence is a further increase in energy, agricultural, and metal prices. The tightening of tensions in markets of these commodities was since Russia, Ukraine, and Belarus are among the world's leading suppliers. Two examples: In 2020-21, Russia exported 38 million tonnes of wheat, accounting for 14.8% of the world's total, and was the world's 7th largest producer of copper, accounting for 3.8% of the total. As for gas, markets are pricing in uncertainty over supplies to Europe, given the continent's high dependence on Russian imports of this source. In Italy, Russian gas covers 38% of consumption. At the beginning of March, the gas price rose to a peak of 227 euros per MWh, compared to 72 euros on the eve of the conflict, 20 euros in January 2021, and 9 euros in February 2020. The price of oil rose to 133 dollars per barrel, from 99 dollars before the conflict to 55 dollars per barrel in February 2020, and there has been a partial recovery since then. A similar dynamic affected many other commodities: wheat rose by more than 34% in two weeks and then fell without returning to pre-war levels, while the price of maise rose by 10%. The prices of metals, such as copper, aluminium, and nickel, rose further in March.

In Italy, increases in oil, gas, and coal prices are driving up the costs of businesses. According to an analysis using input-output tables, the incidence of energy costs on total production costs (assuming constant non-energy costs) would increase by 77% for the total Italian economy, from 4.6% in the pre-pandemic period (average 2018-19) to 8.2% in 2022. In euros, this impact would translate into an increase in Italy's energy bill of 5.7 billion monthly, i.e. an additional burden of 68 billion annually. By far, the most affected sector is metallurgy, where the incidence could reach 23% by the end of 2022, followed by non-metallic mineral production (refractory products, cement, concrete, plaster, glass, ceramics), where the incidence of energy costs could reach 16%, wood processing (10%), rubber-plastics (9%) and paper production (8%). Companies have primarily absorbed these cost increases into their margins, even cancelling them out in some cases, instead of passing them on to the following stages of production. The eroded margins explain why core inflation in Italy is low, much more than elsewhere. The only positive aspect is that this trend in prices and margins has safeguarded the competitiveness of Italian companies compared to those in other countries, but it needs to be more sustainable. The above reasons do motivate several companies to stop production or plan from doing so in the coming months.

On the other hand, rising energy prices (+52.9% p.a. in February) are reducing households' purchasing power. They will affect the extent and pace of consumption growth, whose recovery has been hampered first by the increase in contagions and now also by the more significant uncertainty affecting confidence, which plummeted in March. Therefore, the normalisation of households' propensity to save, which is still high in 2021 (13.5% on average until the third quarter), is postponed. Families and companies will have to review their consumption and investment decisions cautiously. Italy's economic policy uncertainty index rose by 21.1% on average in the first two months of 2022[41] compared to the fourth quarter of 2021 and is set to increase further from March. After the bankruptcy of Lehman Brothers, it had risen by 30.7%; after the attack on the Twin Towers by 85.0%. The war amplified the difficulties in obtaining raw materials and other commodities, particularly for those from the three countries involved. These countries have a high global share of many commodities: coal and other minerals (clay, used in ceramics), metals such as nickel, platinum, palladium, and other semi-finished iron and steel products, which are necessary inputs for the electronics and automotive industries, as well as wheat, maise, and seed oil, used in the food industry.

Firstly, it implies a shock concentrated in specific productions. Secondly, since these are upstream inputs in global value chains used in numerous downstream productions, decelerating the production

[41] CONFINDUSTRIA Centro Studi. (2022). *THE ITALIAN ECONOMY AT THE TEST OF THE CONFLICT IN UKRAINE*.

rhythms will amplify along supply chains to consumer and investment goods. Sanctions and counter-sanctions cause another impact of the war. The direct impact of sanctions on Russia, on Italian exports, is overall modest. The export blockade affects 686 million euros of sales in Russia, equal to 8.9% of Italian exports to the country, which in turn are equal to 1.5% of total Italian exports. What is worrying is that there are some specific Italian products (e.g. some machinery) for which the weight of the Russian market exceeds 10%. Nevertheless, exports of goods are also penalised by the conflict because it will tend to reinforce the production bottlenecks in the global supply network that already appeared in 2021. The geographical specialisation of Italian exports, which are more focused on EU countries, will not help. The same goes for the commodities specialisation of Italian exports, in which, for example, the metal products sector is vital.

In this context, the positive effects of implementing the National Recovery and Resilience Plan (NRRP) are also at risk because some planned investments may be difficult to realise at current prices. In addition, the scarcity of various materials may make it difficult to realise some of the investments on schedule. Some projects will likely have to be revised in light of the current context for the Plan to be effectively implemented. The duration of the war is a crucial variable, but even an early resolution of the conflict would mitigate the impacts but not zero them out.

The forecast scenario, much more than on other occasions, is therefore anchored to a series of assumptions: it has been assumed that from next July, the war will end or at least uncertainty and tensions will start to reduce, in particular on gas and oil prices, which will fall, although remaining above the levels of the beginning of 2021; any hypothesis of energy rationing for the production sector is excluded. It would have very negative impacts; lastly, it would be assumed that the spread of Covid would remain effectively contained and have gradually decreasing impacts and that, despite the worsening situation, Italy would be able to meet its NRRP targets on schedule, possibly revising some projects that might no longer be feasible.

In this deteriorated scenario, Italy's GDP performance in 2022 is much less favourable: GDP would increase by +1.9% this year, with a considerable downward revision (-2.2 points) compared to the scenario outlined in October, before the new shocks, when all forecasters agreed on +4.0%. The reduced positive variation in 2022, moreover, is entirely due to that already "acquired" thanks to last year's excellent rebound (+2.3%):[42] in the first two quarters, indeed, the Italian economy would enter a "technical recession", albeit of limited size. This would not be fully offset by the recovery expected in the second half of the year. This would be followed by growth of +1.6% in 2023, thanks to a fully

[42] *Economic forecast for Italy*. (2023, May 15). European Commission.

increasing GDP profile over the year. In this worsened scenario, Italy's return to pre-pandemic levels slips from the second quarter of this year to the first quarter of next year.

As mentioned, the forecast scenario, based on future prices, assumes that oil prices will remain at their post-invasion highs (114 dollars on average since 24th February) until June 2022. This would be followed by a very partial decline, continuing in 2023 and reaching 85 dollars by the end of the year, a relatively high value compared to the "equilibrium" value (60-70 dollars). In this scenario, Brent would average 106 dollars in 2022 (up from 71 in 2021) and 90 in 2023 (down 15%). A similar profile is assumed for gas prices: at their current high level (136 euros per MWh) until mid-2022, then a slow, partial decline to still very high levels by the end of 2023 (75 euros). Under these assumptions, European gas would stand at 122 euros in 2022 (up from 47 euros) and 81 euros in 2023 (down 33%). Italy's inflation will remain at its current high level for most of 2022 and will average +6.1%, an upward revision of +4.7 points from the October scenario. In 2023, on the other hand, total inflation is expected to fall, to +2.0%, due to the reversal of the two trajectories currently in place: a significant increase in core inflation is expected in Italy as well, with a significant lag, thanks to the recovery of GDP; and the gradual exhaustion of the impact of higher oil and gas prices on the change in energy consumer prices calculated over 12 months, even though price levels fall slightly and remain very high as assumed. Wage dynamics, while rising, are not expected to exert excessive inflationary pressures.

Foreign trade is hampered but has yet to be blocked. Italian exports will slow down significantly in 2022 (+2.8%) after a very good 2021. For this year, the growth of both exports and imports is revised down by about 5 points compared to the October CSC scenario. Italian exports of goods, expected to accelerate in 2023, will stay in line with world trade in the two years. World trade is expected to grow by just 2.0% in 2022, revised down by 2.5 points compared to the autumn CSC report, before strengthening in 2023. In addition, services exports remain weak due to losses in the travel and transport sectors. The outlook has become more uncertain due to the continuing pandemic and the possible adverse effects of the conflict in Ukraine on long-haul international tourism.

All GDP components slow down Italian household consumption is expected to grow by just +1.7% in 2022 and +2.1% in 2023[43], continuing at a more moderate pace on the path of partial recovery, still below pre-Covid values. Italian household consumption will be driven by increased spending on durable goods. The upturn is being held back by the many critical issues that emerged in late 2021 and early 2022. The partial resurgence of infections led to a new halt in consumption in Q4 2021, weighing particularly on spending on services. A waning climate of confidence, rising inflation, notably higher

[43] *ITALY'S ECONOMIC OUTLOOK 2022-2023*. (2022, December 6). Istat.

energy bills, and reduced real purchasing power of households all work against a recovery in consumption in 2022. However, the savings accumulated over the last two years will be essential in sustaining expenditure.

Investment is also expected to slow this year after booming in 2021. It has been the driving force behind the Italian recovery, far exceeding the pre-Covid level. The most significant contribution in 2022 will continue to come from construction, thanks to tax incentives. Business investment in plants and machinery, which has also fully recovered after the pandemic, will instead be held back by declining confidence, rising commodity prices, and prolonged uncertainty. NRRP resources will continue to support them. The industry is heavily affected by high energy prices and other factors. The CSC forecasts modest growth in production activity in 2022, with a tough first half and a rebound in the second half. And then a more sustained pace in 2023. The trend in production has been characterised by decreasing growth rates already during 2021. Between the end of last year and the beginning of 2022, indicators pointed to a deterioration in industrial activity, driven by difficulties in supplying raw materials and labour and rising energy prices. This was reflected in the fall in industrial activity in December and even more so in January. Problems with cost pressures and input supply delays, exacerbated by the conflict, will continue to hamper production, especially in the first half of 2022. The collapse in services due to the pandemic only partially recovered in 2021. One of the main factors contributing to the impact on the services sector is the reduced mobility of people (as well as goods). Reduced mobility affects spending on various types of services, leading to consumption that is 'lost' (e.g. dinner at a restaurant) and not "deferred" as in the case of goods (e.g. purchase of household appliances). In 2021, mobility had returned to around pre-Covid levels, but with significant heterogeneity: mobility to recreational places (bars, restaurants, museums) remained low.

The first half of 2022 could see a new slowdown: despite fewer anti-Covid restrictions, which favour the recovery of consumption in services related to leisure, catering, and travel, some habits have occurred, probably structural (e.g. more smart working) that penalise spending outside home. There are also new fears that have emerged with the conflict in Ukraine and the higher transport cost due to high energy prices. During the Covid crisis, labour input has moved almost simultaneously with economic activity and nearly one-to-one in magnitude, both in the downturn and recovery. The CSC scenario assumes that this will also happen over the forecast horizon: thus, employment (in terms of FTEs) will contract in the first half of 2022 during the brief technical recession, but it will start to grow again from the summer and throughout 2023[44]. In 2022, the number of persons employed was expected to grow, while hours worked per capita would not be on average for the year due to a decline at the

[44] *Press corner*. (2022). European Commission - European Commission.

beginning and a recovery afterwards. In 2023, however, there will also be a lengthening of hours worked and a further increase in employment. In this scenario, 2023 will close with 190,000 more employed people than at the end of 2019, i.e. a full recovery after the deep crisis caused by the pandemic. The contribution of policies Since even the war's conclusion will not lead to a substantial reversal of the current trends, the policies that will be adopted will be crucial. In particular, the ability of the Italian Government and the European institutions to intervene to reduce the impact of the war on businesses and families will be decisive. The less effective and timely the measures adopted, the worse the economic consequences will be.

These interventions include choices to diversify energy imports and change the energy mix. The conflict finds Italy in a situation where the mix of available energy sources makes it more vulnerable to extreme supply cuts or shortages, which are excluded in the CSC scenario. Italy uses much more natural gas than other sources, compared to other European economies: the problem is that most of this gas is imported, significantly from Russia. This dependence on foreign (Russian) gas suggests that energy policy in Italy and Europe can and must follow different paths, each of which can significantly contribute. In short to medium term, increasing domestic gas extraction and diversifying gas imports is essential, reducing Russia's share and possibly temporarily resuming coal-fired power generation. In the long term, it is necessary to increase energy independence; on the one hand, by increasing the share of energy produced from renewable sources and also bio-energy and reconsidering nuclear power, which is already a source of imported electricity; on the other hand, by continuing on the path of greater energy efficiency.

Regarding monetary policies, in the CSC scenario, unlike the Fed, the ECB, given the weakness of the Eurozone economy, which is most affected by the conflict, will be very cautious, both on bond purchases and on official rates. It will keep the latter at zero until the end of 2022. Only in 2023 is the first rise in rates expected, which will help countries with high debts, such as Italy, at least this year.

The risks of the scenario are almost all to the downside. Compared to the baseline scenario outlined, the most considerable risk relates to the primary assumption: the limited duration of the conflict and its main effects. The CSC has estimated the possible further negative impact on Italy's GDP in an "adverse" scenario, in which the conflict would continue throughout 2022 or, at least, gas and oil prices would remain at the average levels recorded in the first month of the war, until the end of the year. In this scenario, GDP dynamics would be 0.3% lower in 2022 and 0.6% lower in 2023[45].

A more 'severe' scenario has also been studied, in which the conflict and its effects continue until the end of 2023. The difference with the previous one is almost all in the second year when energy and

[45] *Statistics News Release OECD GDP Growth*. (2023, February 21). OECD

other commodity prices would remain at post-invasion levels: the simulation consistently shows that the additional impact on GDP is low in 2022, while in 2023, it is such that it cancels out the growth of the economy. The degree of uncertainty in the economy, already priced in the markets, especially the financial markets, could increase further this year. This would come in the wake of the current conflict and its possible prolongation: this risk is closely linked to the first one. Higher uncertainty could mean a further reduction in the confidence of investors, businesses, and households, compared with the decline already recorded in recent months.

This would weigh even more heavily than expected on the dynamics of critical variables: consumption, investment, and industrial production. Many risks are not new, already present in the October CSC scenario, but have partly increased: a postponement in the timing of the implementation of the NRRP or its reduced effectiveness in raising potential growth; a possible new resurgence of the pandemic, again increasing its negative impact on the economy; a sudden increase in interest rates in the Eurozone, in the wake of higher and more persistent inflation than expected at the moment, in particular by the ECB.

3.3 Russia's Measures Against Foreign Investors

The array of sanctions against Russia, including the freezing of Central Bank assets, import and export bans, and actions targeting specific people, serve as evidence of the immediate response of the international community to the invasion of Ukraine (European Commission, EU sanctions against Russia following the invasion of Ukraine; US Department of Treasury, Ukraine/Russia-Related Sanctions). Russian government approves a list of hostile nations and territories,[46] proposing and adopting several "measures" targeting foreign corporations from States and territories that engage in "unfriendly" actions against Russia, its companies, and its citizens ("Unfriendly States"). After the pandemic, Russia, a historically significant recipient of FDI, announced plans to update the system of special investment contracts and projected that up to 1,000 such agreements would be signed by 2024, totalling 185 billion USD in FDI (UNCTAD, World Investment Report 2021: Investing in Sustainable Recovery, pp. 67-69). The Measures, however, jeopardize cumulative FDI worth billions of dollars and deter international investment in Russia (UNCTAD STAT, General Profile: Russian Federation). The Measures may potentially result in claims against Russia under its current international investment agreements ("IIAs") and have substantial effects on investors from Unfriendly States and their current investments.

The following are some of the measures that apply to investors from unfriendly states:

External supervision or administration. A Law on external administration that was approved by the lower house of the Russian Parliament establishes a special interdepartmental body with extensive authority to impose external administration on any enterprise. According to this Law, an outside administrator may be appointed to administer a targeted corporation through a court order. The responsibility of liquidating the business and establishing a new business into which all of its assets will be transferred is given to external administrators. After upon, a special public auction would be held to sell the shares of this new firm. This law targets Russian businesses:

1. directly or indirectly owned or controlled by a foreign investor from an Unfriendly State;
2. materially important to Russia's financial stability and the protection of its citizens' rights and interests;
4. whose management has left Russia's territory after February 24th, 2022, for no apparent reasons.

[46] Tass. (2022, March 7). Russian government approves list of unfriendly countries and territories. *TASS*.

Patent and IP rights restrictions. Decree No. 299 permits local businesses and individuals to use foreign patents without their permission and without paying them for the use of their inventions, models, or designs if necessary to protect the life and health of Russian citizens as well as the defense and security of the Russian State. A temporary process for meeting responsibilities resulting from the usage of intellectual property products is also outlined in Decree No. 322.The Russian Government is also permitted to suspend certain intellectual property rights, including those protections relating to exclusivity, under Law No. 46-FZ.

Restrictions on debt repayment. In accordance with a special temporary debt settlement procedure established by Decree No. 95, Russian debtors can pay creditors from hostile countries debts temporarily in rubles in an amount equal to the value of those obligations, calculated at the official exchange rate of the Russian Central Bank on the date of payment.

Demands for transaction approval. The Decree No. 81 "On Additional Temporary Economic Measures to Secure the Financial Stability of the Russian Federation" of March 1st, 2022, establishes specific rules for transactions involving Russian citizens and those related to hostile countries. For instance, it is illegal for Russian citizens to enter into loan agreements that would lend foreign money to non-citizens without the Governmental Commission's prior consent. The Governmental Commission must also approve loans and credits made in rubles by Russian citizens to certain foreigners in advance. Additionally, Decree No. 295 requires the Board of Directors of the Central Bank of Russia to approve the transfer of funds from Russian accounts held by foreign investors.

Asset transfer involving aviation. Russian airlines are permitted to register aircraft they have leased from foreign businesses under Law No. 56-FZ.

Restrictions on Russian financial institutions' duties. Decree No. 529 stipulates a special procedure for Russian credit institutions to follow when fulfilling obligations that fall under sanctions, as well as punitive measures like the right to suspend fulfilling obligations under bank account agreements with customers. By crediting money in rubles to bank accounts opened with Russian credit institutions, this Decree also enables Russian debtors to fulfill their commitments to resident Eurobond holders.
Currency is in charge. Decree No. 126 gave the Russian Central Bank the power to determine the highest amount that can be transferred from foreign investors' accounts to foreign accounts. The Russian Central Bank imposed limits on the sums that might be transferred to accounts opened overseas on May 16th, 2022. For instance, Russian citizens as well as citizens of friendly nations are

permitted to transfer up to USD 1,000,000 or the equivalent in any other foreign currency per calendar month from their accounts with Russian banks to their accounts or other people abroad (see Bank of Russia, Bank of Russia eases further previously introduced FX restrictions, May 16th, 2022).
limits on the import and export of raw materials.
bans on transactions in the energy industry. Decree No. 520 forbids the selling and reorganizing of foreign investors from hostile states' stakes in, among other things, specific mining and energy projects and businesses. The restriction is in effect until December 31st, 2022. Unless the President has granted a license in this regard, any transaction carried out in violation of Decree No. 520 is regarded null and void (see Decree No. 100 of March 8th).

Foreign investors may file claims against Russia for breaching its commitments under Russian IIAs in light of the Measures' effects on foreign companies doing business in Russia.
Between Russia and Unfriendly States, there are now 27 bilateral investment treaties ("BITs") in existence (see Investment Policy Hub, Russian Federation). The Energy Charter Treaty (the "ECT"), which was signed by Russia in 1994 and whose provisional application was approved until 2009 (see International Energy Charter, Russia and the Energy Charter Treaty, August 7th, 2014), was similarly terminated in 2009. Nevertheless, according to Article 45(3) of the ECT, the latter still holds for investments made during the latest period for a further 20 years. So long as they contain an investor-State arbitration clause, international investors may start investment arbitration cases against Russia based on these agreements.
The ECT and Russian BIT both include several significant safeguards for outside investors. The main topics are appropriation, the most favoured nation ("MFN"), national treatment, and unrestricted funds transfer.
It is noteworthy that Russia has ratified the 1965 Convention on the Settlement of Investment Disputes between States and Nationals of Other States ("ICSID Convention") but has not ratified it; as a result, foreign investors may not initiate arbitration claims based on this basis. However, the Arbitration Rules of the United Nations Commission on International Trade Law ("UNCITRAL") or other arbitration rules may be used in ad hoc investor-State arbitrations under some BITs.

Most Russian BITs forbid direct and indirect expropriation actions unless they are carried out in the public interest and accordance with due legal process, are devoid of discrimination, and are followed by fast, adequate, and efficient compensation.
According to Mobil and others v. Venezuela, 294, direct expropriation is a State action that results in the investment's legal seizure and eliminates the investor's legal ownership of it. On the other hand,

indirect expropriation denies the investor the chance to use the investment significantly while maintaining the investor's title. Therefore, actions that result in the government interfering with investors' rights, severe deprivation, or loss of investment value may be considered indirect expropriation (see, for instance, Eco Oro v. Colombia, Manolium Processing v. Belarus, and Infinito Gold Ltd. v. Costa Rica). According to the ruling in Stabil v. Russia, "it is the measure's economic impact on the investment that matters, whereas an open and unequivocal intent to expropriate may not be present."

The Measures could lead to charges of direct or indirect expropriation against Russia. According to evidence, actions comparable to the statute instituting the regime of external management on impacted enterprises have been judged to be unlawful expropriation and to deprive investors of their property. Following the invasion and subsequent annexation of Crimea from Ukraine, Russia has already been the target of similar accusations in PrivatBank and Finilon v. Russia. The transfer of the Bank's assets into a trust managed by a depositor fund under State supervision by court order was one of the measures taken by Russia in this case. According to the 1998 Russia-Ukraine BIT[47], Russia was responsible for illegal seizure. The Iranian government took similar actions against the claimant in Phillips Petroleum Co. Iran v. Iran, including abolishing the joint venture agreement and replacing the management with directors chosen by the government. The Tribunal determined that the relevant measures were expropriation since the government's meddling stripped the claimant of its ownership rights at its core. Any further significant asset devaluation might constitute indirect expropriation. The statute permitting Russia to register planes leased from foreign firms in Russia and preventing the leasing companies from retrieving their assets is one example of such devaluation.
Therefore, foreign investors may have a case to claim that the external management system does not meet the requirements for a legal appropriation, such as:

Due process is essential because investors from hostile states are not given the same rights as other investors, and compensation is necessary because expropriation would be done without payment.

The unrestricted flow of money related to investments is typically guaranteed under Russian BITs, provided foreign investors have complied with their tax duties under host-State regulations. Such transfers must be made without delay, in a convertible currency, and at the exchange rate in effect on

[47] *Russian Federation - Ukraine BIT (1998) | International Investment Agreements Navigator | UNCTAD Investment Policy Hub*. (2022).

the transfer date as permitted by the host-State's currency laws. The regulations on the free transfer of payments, as stated in Biwater Gauff v. Tanzania, target actions "such as currency control restrictions or other measures taken by the host State which effectively imprison the investors' funds, typically in the host State of the investment."

It has been determined that measures requiring the use of a State's currency and forbidding the release of foreign money violate the transfer of funds laws. The Tribunal determined in von Pezold v. Zimbabwe and Border Timbers v. Zimbabwe that the state had violated the transfer of funds guarantee by refusing to issue foreign currency to enable the investor to repay certain loans.

Therefore, Russian actions imposing currency controls, restrictions on the transfer of funds, legal requirements for such transfers, and the payment of debts to foreign creditors in rubles could result in legal claims for violations of such provisions. Before asserting a claim of breach of a transfer provision where licensing requirements are in place, investors must show they have complied with the appropriate procedures established under host-State laws (see Metalpar v. Argentina).

The majority of Russian BITs contain national treatment and MFN. According to UPS v. Canada, investors must show they are in "like circumstances" with domestic investors or investors of a third State and that the host State treated the latter more favourably without justifying this differentiation based on legitimate public welfare objectives in order to substantiate violations of these obligations.

Most Measures are classic cases of de jure discrimination because they specifically target foreign investors and do not apply to domestic or foreign investors from friendly states. For instance, businesses owned or controlled by a foreign investor from an Unfriendly State are subject to the Law on External Administration. Decree No. 299,[48] similarly, permits the unreimbursed use of patents held by patent holders from Unfriendly States. Therefore, in light of these requirements, claims based on national treatment and MFN provisions may be made.

However, investors should be aware of any potential exceptions to these standards that may be contained in Russian BITs. Regarding national treatment, several agreements retain the host-State's authority to restrict foreign investors to domestic investors in specific sectors of the national economy and activity fields. Other IIAs (such as the Russia-Greece BIT (1993)) state that States retain the right to create or maintain exceptions to national treatment obligations. Similarly, certain Russian BITs' MFN clauses stipulate that they do not apply to benefits from free trade agreements, customs agreements, or economic unions (for example, the Russia-Lithuania BIT (1999)).

[48] *Russia suspending some IP Rights and Peppa Pig trade mark infringement*. (2022, March 17). IP Helpdesk. https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/russia-suspending-some-ip-rights-and-peppa-pig-trade-mark-infringement-2022-03-17_en

4. Oil Companies Performance under Restrictions

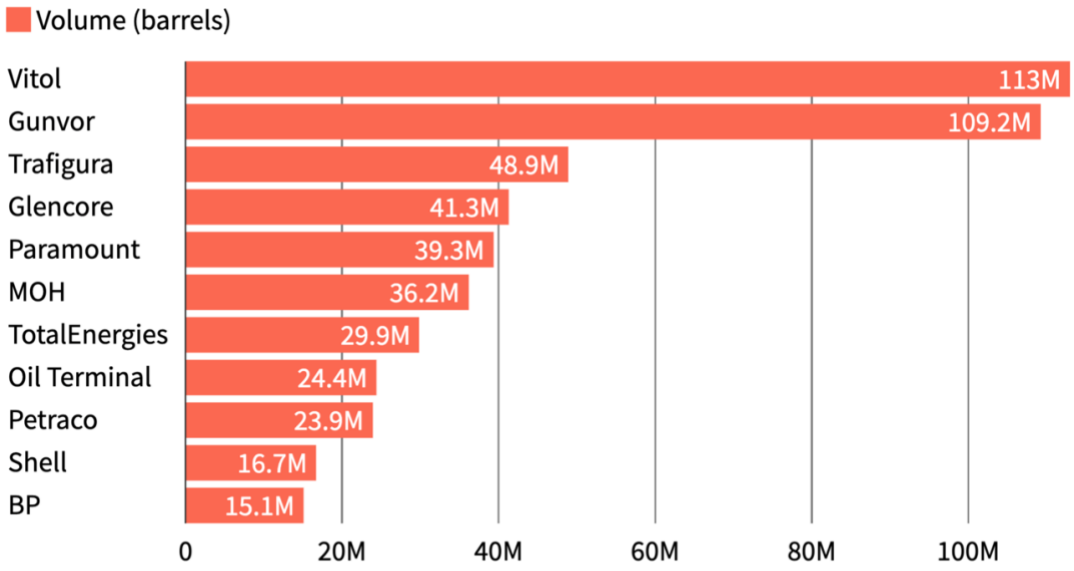
4.1 Western Companies Oil Trade One Year On

The top three countries currently importing Russian oil are Turkey, India, and China. However, according to data by Global Witness, Western firms nonetheless have a sizable role in the transaction, which enabled Russia to export 533 million barrels of oil and oil-related products since February 24th of last year. Western oil traders did not violate sanctions by interacting with Russia from the start of the war. However, those who persisted in trading profited from the invasion's soaring prices, allowing Putin to swell the Kremlin's military purse. Global Witness examined the seaborne exports of crude oil and oil derivatives from Russian origin to the rest of the world using commercially available data. We can tell which businesses benefited from the trade and where Russian oil is currently going.

According to commercially available data, Russia has exported about 1.22 billion barrels of crude oil via sea since the start of the conflict, with a total estimated value of $97 billion. Since February 24th, 928 million barrels of refined oil products have been shipped to other countries. Since the beginning of the invasion, Western trading firms and oil majors have continued to transact a sizeable amount of Russian oil, doing so in the amount of 533 million barrels, including over 171 million barrels of crude oil valued at an estimated $14.8 billion and an additional 362 million barrels of refined products. It is equivalent to almost 25% of all the oil Russia shipped by sea in 2017.

Since the invasion, Russia has sold more than 113 million barrels of oil and oil products, including crude oil worth an estimated $2.4 billion, with the aid of Vitol, the most significant Western oil trader[49]. The Netherlands-based merchant, which boasts former U.K. government minister Alan Duncan among its senior executives, came under fire last year for growing its trading with Russian ports in the months following the invasion, notably from an advisor to President Zelenskyy. In response to demands, Vitol announced in April that it would "cease trading crude oil and products of Russian origin." According to Vitol, it conducts business "in full compliance with all applicable laws and regulations, " and the amount of Russian crude oil and products it now trades is "negligible."

[49] *One year on: Western companies traded 533 million barrels of Russian oil | Global Witness*. (n.d.). Global Witness. https://www.globalwitness.org/en/campaigns/stop-russian-oil/one-year-western-companies-traded-533-million-barrels-russian-oil/



Note: The figures shown display the volume of oil and oil products that each company was involved in the trade of, either as buyer, seller, or charterer. The sum of these columns exceeds the total volume of oil traded as multiple entities are typically involved in a trade.
Source: Global Witness analysis of Kpler data

Gunvor, the second-largest Western facilitator, assisted Russia in moving more than 109 million barrels of crude oil and oil-related goods, valued an estimated $772 million. The Russian oligarch Gennady Timchenko, who formed the trader with headquarters in Cyprus, has also denounced the invasion and declared that as of March 2022, it will no longer conduct new business in Russia. “All of Gunvor’s trading is performed in strict compliance with all applicable international economic sanctions,” the company told Global Witness.[50]

The supermajors BP, Shell, and TotalEnergies are all included on the list of top dealers.

In March, TotalEnergies, which transacted 29 million barrels, denounced “Russia’s military aggression against Ukraine” and pledged to “halt all purchases of Russian oil and petroleum products as soon as possible.” According to TotalEnergies, it has “not been involved in any trade involving Russian oil and petroleum products since the end of 2022.”

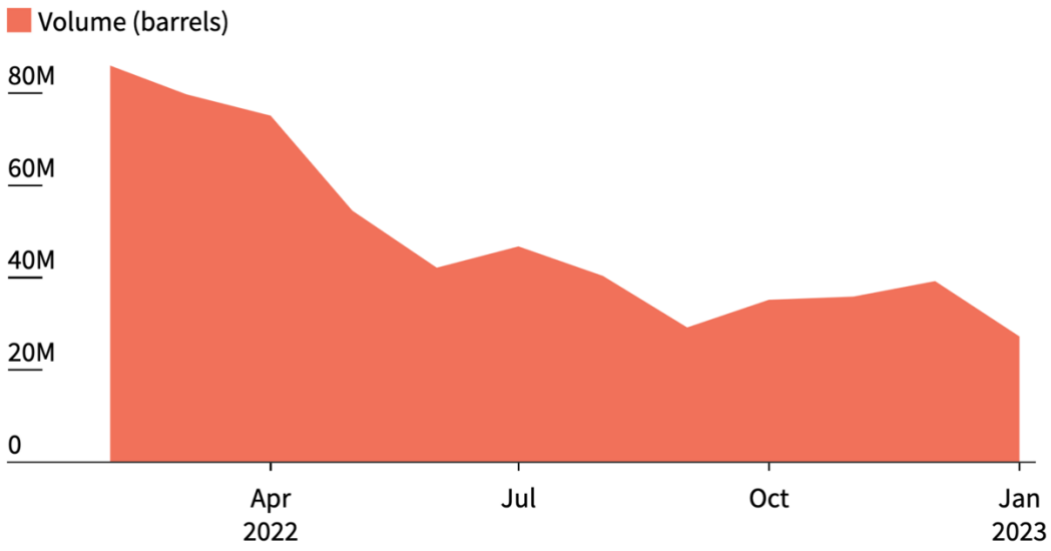
The war in Ukraine was referred to as a “act of aggression which is having tragic consequences across the region” by BP, which traded 16 million barrels of oil. As part of its commitment to refrain from entering any new contracts to buy Russian oil or oil products, BP had written off its investment in

[50] *Investigations and advocacy for climate justice & civic freedoms | Global Witness*. (2022). Global Witness.

Rosneft, a Russian oil corporation, in February 2022. In order to fulfill "pre-existing contractual obligations, these have now ended," BP stated that "cargoes of Russian oil or products lifted by bp in 2022 were in a limited period in the months following the invasion." [51]

In March, Shell, which had traded 15 million barrels, denounced the Russian government for "its atrocities in Ukraine" and declared their "intent to withdraw from its involvement in all Russian hydrocarbons".

As these corporations pledged to not use Russian oil, the total volume of Russian crude and processed products decreased starting in May 2022. However, through the end of 2022, these businesses jointly exchanged between 30 and 40 million barrels of crude oil and refined goods per month. The following chart is showing the trade volume in crude oil and refined oil products since February 2022 by Western corporations.



These findings indicate that Western traders continued to be heavily involved in Russian oil in the year following the invasion, finding ways to lawfully trade Russian oil around the world, in spite of their declarations and promises in spring 2022. These trades will give the Russian government the money it needs to carry out Putin's nasty, aggressive war. The West's support for Putin's war must stop.

[51] *One year on: Western companies traded 533 million barrels of Russian oil | Global Witness*. (2022). Global Witness.

4.2 Russia Oil Trade Shift

According to statistics from energy analytics firm Vortexa, Anadolu, China, and India, they have collated for 91% of Russia's crude oil shipments in March. Western sanctions forced the nation to shift its trade channels from Europe to Asia almost entirely.

Russia exported 6.75 million barrels per day (bpd)[52] of oil and oil-related goods in March, increasing from lower levels caused by the sanctions imposed since the commencement of the conflict in Ukraine. In contrast, its crude oil exports increased to 3.38 million bpd in March, the highest level in the previous ten months. After beginning to lose its largest export market, Europe, due to the sanctions, Moscow discovered new ports for its crude oil and oil products, particularly in Asia.

As the top consumer of Russian crude, China surpassed India this month with purchases of 1.65 million bpd. In February, China received 1.1 million bpd of crude from Russia. Since May 2022, China has been purchasing more than 1 million barrels per day of crude oil from Russia, with only December 2022 seeing a decrease to 769,790 bpd. India received 1.43 million bpd of Russian crude in March, continuing a trend that began when the war broke out. In the previous year, India's crude oil imports from Russia had dramatically increased. Crude oil shipments from Russia to India increased dramatically, doubling, from 68,000 barrels per day in March 2022 to 1.43 million in March of this year.

Russian oil exports totalled 29,338 bpd to Europe, which includes the European Union, Norway, Switzerland, and the United Kingdom, 89,500 bpd to Bulgaria, 59,860 bpd to the Middle East and North Africa (MENA), 56,417 bpd to Turkey, and 59,860 bpd to the MENA.

Turkey's imports of Russian crude oil dropped precipitously last month compared to their 243,000 bpd level in February.According to data, Russian exports to Europe significantly decreased from pre-war levels due to the EU sanctions. Before the war, Europe imported more than 1.5 million barrels per day (bpd) of crude oil from Russia. In November 2022, just before the ban on Russian seaborne crude went into effect on December 5th , 2022, they were at 507,000 bpd.

Beginning on December 5, the EU put an embargo on the seaborne imports of Russian crude oil, the same day, the EU and G-7 decided to restrict the price of Russian crude at $60 per barrel.

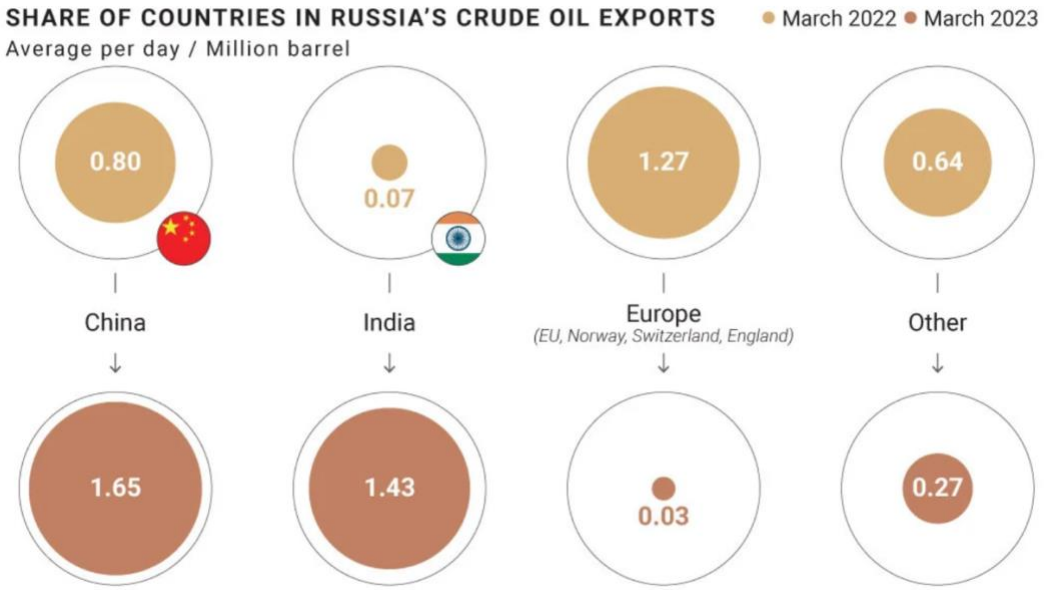
Last month, Russia exported 3.37 million barrels per day (bpd) of oil products, of which 1.55 million were diesel and gasoline. With 866,000 bpd, fuel oil shipments were the second-highest.

[52] *Russia exports 91% of its crude oil to China, India in March as trade routes shift*. (2022).

In March, 1.65 million bpd of Russian oil products were imported into Asia, accounting for 49% of all Russian oil product exports. China and India received 241,000 bpd and 204,000 bpd of Russian oil exports, respectively. In March 2022, both nations were importing roughly 80,000 bpd of oil products from Russia, which has since risen.

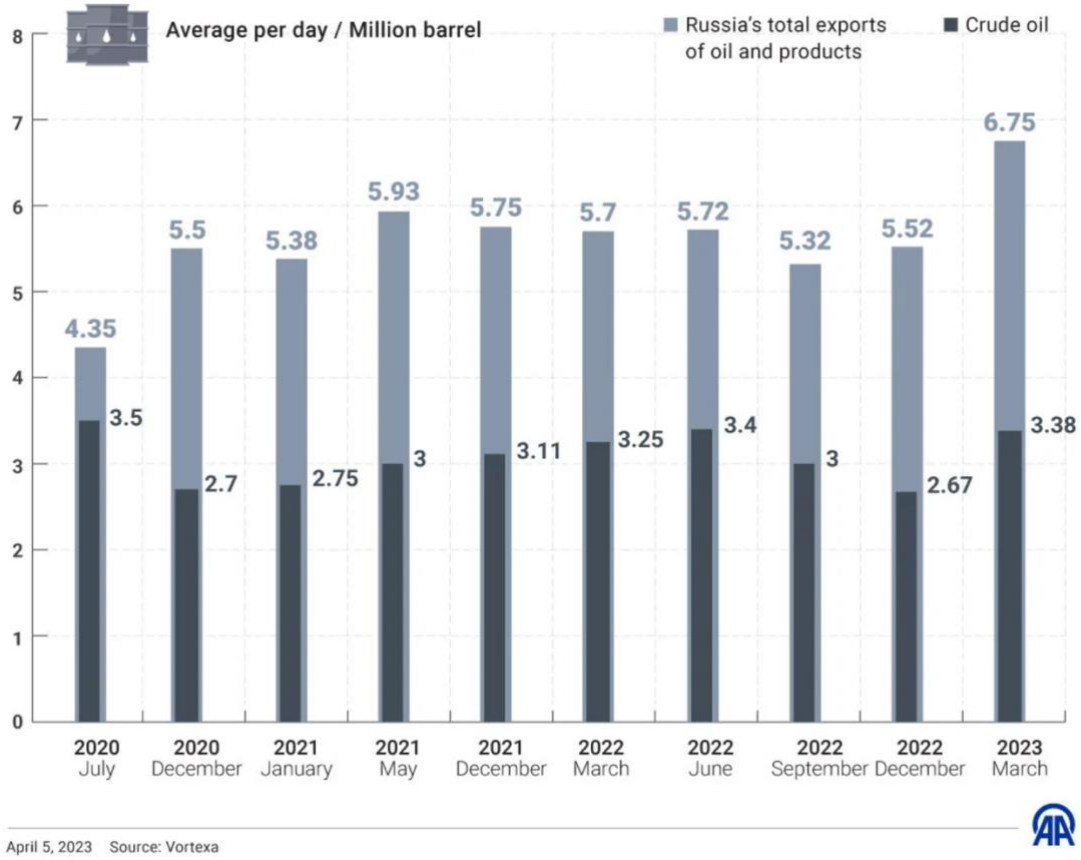
With 454,170 bpd in March, Turkey also became one of the major consumers of Russian oil products, more than double its March 2022 consumption of 187,000 bpd.
Before the conflict, Europe bought 1.2 million to 1.6 million bpd of oil products from Russia. However, after the EU banned importing Russian diesel, jet fuel, and other oil goods on February 5th of this year, shipments of oil products from Russia drastically decreased. Russia sent oil products to Europe this month at a rate of 58,633 bpd as opposed to 965,000 bpd in January, just before the EU ban went into effect.[53]

However, there has been a different trend compared to the destinations for Russia's crude oil exports. The Middle East, North Africa, Latin America, and Asia have all boosted their imports of oil products from Russia since the conflict, with Europe being the only region to suffer a decline in shipments of Russian oil products.



[53] *Oil Market and Russian Supply – Russian supplies to global energy markets – Analysis - IEA*. (2022). IEA.

Russian oil products were imported by the Middle East at 387,257 bpd in March of this year, as opposed to 54,000 bpd in March of 2022. From 35,215 bpd in the same month of 2022, North Africa's procurement of oil products from Russia increased to 318,564 bpd last month. In March, Latin America purchased 133,561 bpd more oil products from Russia than it did in March 2022 (93,780 bpd).



The data reveals that when it increased its petroleum purchases from Moscow, Asia's third-largest economy saved about $5 billion (£4 billion). After Russia invaded Ukraine, Western nations started reducing their energy imports. Russia has been offering energy at a lower price to nations like China and India, the third-largest oil importer in the world.

Only 2% of India's total yearly crude oil imports in 2021 came from Russia. According to the Bank of Baroda, that percentage has already reached approximately 20%.[54] According to the data, India's purchases of Russian oil during the most recent fiscal year resulted in an $89 per tonne savings for India. India has defied efforts from the US and Europe to comply with Western sanctions on Russian

[54] Choudhary, S. (2022, November 2). Russia becomes the No. 1 oil supplier for India in October. *The Economic Times*. https://economictimes.indiatimes.com/news/india/russia-becomes-the-no-1-oil-supplier-for-india-in-october/articleshow/95240329.cms

imports. Additionally, New Delhi has not formally denounced Russia's invasion of Ukraine. India has defended its oil purchases, claiming it cannot pay higher costs because it depends on energy imports and has millions of people living in poverty. According to India's External Affairs Minister S. Jaishankar in a TV interview last year, Europe has purchased six times more electricity from Russia than India since the start of the Ukraine war. He claimed that Europe has successfully decreased its imports while doing so comfortably. "If it is a matter of principle, why did Europe not cut on the first day?", Mr Jaishankar continued.[55]

Some analysts predict that Russia will continue to provide cheap oil to Asia's most prominent energy importers as there is no end to the conflict.
According to Vandana Hari of the energy analysis company Vanda Insights, "We expect Russian crude intake to remain limited to these two countries [India and China], sustaining the steep discounts."
If the sanctions were to be repealed, India's oil refiners would "go back to their usual crude diet"[56] rather than continue to maximize their profit margins.

[55] Pti. (2023, January 3). Jaishankar defends India's move to import Russian oil; says Europe imported 6 times more than India since. *The Economic Times*.

[56] *Vortexa | Real-Time Energy Cargo Tracking*. (2023b, April 26). Vortexa.

4.3 Case Study: Oil Companies' Performance Analysis

According to Reuters, Saudi Arabia, the largest oil exporter in the world, more than doubled its purchases of Russian fuel between April and June to assist power plants satisfy the need for summer cooling while freeing up the kingdom's petroleum for export. Due to the sanctions imposed on Russia as a result of the invasion of Ukraine, its fuel price has been reduced in order to draw customers.

Saudi Arabia purchased 647,000 tonnes (48,000 barrels per day) of fuel oil from Russia through Russian and Estonian ports in April through June 2022, according to data obtained by Reuters through Refinitiv Eikon ship monitoring, compared to 320,000 tonnes during the same time in 2021.[57]
Despite the sanctions, countries outside than Saudi Arabia have also benefited from the reduced price. China's crude oil imports increased by 55% in May compared to the same month last year, with shipments amounting to nearly 2 million barrels per day (bpd), up 25% from 1.59 bpd.

In this chapter we are going to compare the outflow of Russian oil respectively in the Western and Eastern markets by sampling a few companies to show the consequences of the sanctions on their trading.

The sample is made up from the following companies:

1. Sinopec Corporation
2. Hindustan Petroleum Corp. Ltd
3. ENI S.p.A.
4. Holly Frontier Sinclair
5. Shell plc.
6. BP plc
7. Total Energies SE
8. Chevron Corporation
9. Equinor ASA
10. Exxon Mobil Corporation

[57] Reuters. (2022, July 15). Exclusive: Saudi Arabia doubles second-quarter Russian fuel oil imports for power generation. *Reuters*.

1. Sinopec

One of China's major integrated energy and chemical corporations is Sinopec Corp. The company's primary business activities include:[58]

- the exploration, production, pipeline transportation, and sale of oil and gas;
- the production, sale, storage, and transportation of refinery products, petrochemical products, coal chemical products, synthetic fibre, and other chemical products;
- the import and export of oil, natural gas, petroleum, petrochemical, chemical products, and other commodities and telecommunications services.

This segment's operating revenues in 2022 were RMB1,575.1 billion, an increase of 13.7% from 2021. The price rises for gasoline, diesel, kerosene, naphtha, and refining by-products were mainly to blame. The sales volumes, average realized prices and variations for the Company's main refined oil products by segment in 2022 and 2021 are shown in the accompanying table.

	Sales Volume (thousand tonnes) Year ended 31 December			Average realised price (RMB/tonne) Year ended 31 December		
	2022	2021	Change (%)	**2022**	2021	Change (%)
Gasoline	57,562	63,827	(9.8)	8,967	7,208	24.4
Diesel	61,169	58,807	4.0	7,376	5,563	32.6
Kerosene	14,782	17,313	(14.6)	6,468	3,734	73.2
Chemical feedstock	41,470	45,234	(8.3)	5,016	3,989	25.8
Other refined petroleum products	65,945	68,783	(4.1)	4,553	5,061	(10.0)

- Gasoline sales revenue was RMB516.2 billion in 2022, a 12.2% rise over 2021.
- Diesel sales income was RMB 451.2 billion, an increase of 37.9% from 2021.
- Kerosene sales revenues were RMB 95.6 billion, an increase of 47.9% from 2021.
- Chemical feedstock sales income of RMB 208.0 billion, an increase of 15.3% from 2021.
- RMB 300.2 billion, or 13.8% less than in 2021, was the sales revenue for refined petroleum products other than gasoline, diesel, kerosene, and chemical feedstock.
- Operating costs for the category totalled RMB 1,562.9 billion in 2022, an increase of 18.4% from the previous year. Increased procurement costs primarily brought this on due to an annual increase in the price of crude oil on the global market.

Compared to the same period in 2021, the refining profit 2022 was RMB344 per tonne, a decline of RMB188 per tonne. This was primarily related to a decline in domestic gasoline and diesel processing

[58] *China Sinopec*. (2022).

margins caused by the high price of crude oil and a notable year-over-year increase in the difference between the cost of imported petroleum and international freight and insurance.
The refining unit's cash operating cost in 2022 was RMB223 per tonne, up 4.6% from 2021. This rise was mainly the result of higher unit fixed costs brought on by considerable fuel price increases and lower processing throughput.

The segment's operational profit reached RMB12.2 billion, down RMB53.1 billion and 81.3% from 2021's operating profit. This is primarily because domestic gross margins for gasoline and diesel have declined due to high crude price conditions, weak domestic oil product demand, and a dramatic decline in refining margins caused by increased crude procurement costs.

In 2022, the Company's revenue was RMB3,318.2 billion,[59] increased by 21.1% compared with that of 2021. That was mainly due to increased prices of petroleum and petrochemical products resulting from increase of international crude oil prices. The Company actively deepened optimisation of production, stabilised operation, expanded market, enhanced adjustment of feedstocks, products and facilities to actively respond to unfavorable factors of weak demand, and realised RMB75.8 billion operating profit, down by 19.9% year on year. The following table sets forth the main revenue and expenses from the Company's consolidated financial statements:

	Year ended 31 December		
	2022	2021	Change (%)
	RMB million	RMB million	
Revenue	**3,318,168**	**2,740,884**	**21.1**
Revenue from primary business	3,257,356	2,679,500	21.6
Other operating revenues	60,812	61,384	(0.9)
Operating expenses	**(3,242,333)**	**(2,646,256)**	**22.5**
Purchased crude oil, products and operating supplies and expenses	(2,684,756)	(2,076,665)	29.3
Selling, general and administrative expenses	(55,809)	(54,978)	1.5
Depreciation, depletion and amortisation	(109,906)	(115,680)	(5.0)
Exploration expenses, including dry holes	(10,591)	(12,382)	(14.5)
Personnel expenses	(103,585)	(103,492)	0.1
Taxes other than income tax	(263,991)	(259,032)	1.9
Impairment reversals/(losses) on trade and other receivables	1,084	(2,311)	–
Other operating income/(expenses), net	(14,779)	(21,716)	(31.9)
Operating profit	**75,835**	**94,628**	**(19.9)**
Net finance costs	(9,974)	(9,010)	10.7
Investment income and share of profits less losses from associates and joint ventures	28,539	23,551	21.2
Profit before taxation	**94,400**	**109,169**	**(13.5)**
Income tax expense	(18,757)	(23,318)	(19.6)
Profit for the year	**75,643**	**85,851**	**(11.9)**
Attributable to:			
Shareholders of the Company	66,153	71,975	(8.1)
Non-controlling interests	9,490	13,876	(31.6)

[59] *2022 ANNUAL REPORT AND ACCOUNTS*. (2023, March 26). Sinopec.com.

2. Hindustan Petroleum

Subsidiary of Oil and Natural Gas Corporation, Hindustan Petroleum Corporation Limited (HPCL) is owned by the Ministry of Petroleum and Natural Gas of the Government of India, and is also known as HP. Its main office is in Mumbai. Oil and Natural Gas Corporation has held most of its shares since 2018. As of 2016, it is ranked 367th on the Fortune Global 500[60] list of the largest firms in the world. On October 24, 2019, it was upgraded to a Maharatna PSU. Gross revenues for the company were H3,72,642 Crore during the year, up 38.4% over the preceding period. With a strong balance sheet and cash flows, the company keeps constantly returning value to its owners. The price of Indian crude oil in the basket likewise showed an increased trend in 2021-2022 due to the increase in global crude prices. Following a resurgence in demand fueled by rising economic activity, the average price of Indian crude oil rose to US$ 67.4 per barrel in Q1, up US$ 7.2 from the prior quarter's average. X1A further factor supporting the increase in crude oil prices was the reduction in supplies from OPEC+ producing nations.

As a result, prices increased further in Q2 2021-2022 to US$ 72.2 per barrel. As end users moved their use from gas to oil due to higher LNG prices, there was a subsequent increase in crude oil demand. Due to concerns about demand caused by increased instances of the Omicron type of COVID-19, prices moderated in December 2021, dropping $7.2 per barrel from the previous month to US$ 73.4 per barrel. In the third quarter, the average price of Indian crude was US$78.7 per barrel. Due to the geopolitical confrontation between Russia and Ukraine, the Indian crude oil basket price for Q4 2021-2022 settled at US$ 97.1 per barrel, representing the most incredible quarter–quarter increase of US$ 18.4 per barrel.

(₹ / Crore)

Geography	For the year ended 31.03.2022	For the year ended 31.03.2021
(i) Revenue		
India	3,66,869.33	2,67,517.00
Other Countries	7,257.66	3,060.96
Total Revenue	**3,74,126.99**	**2,70,577.96**
(ii) Non-Current Assets*		
India	1,02,967.66	88,515.21
Other Countries	183.68	136.04
Total Non-Current Assets	**1,03,151.34**	**88,651.25**

* non-current assets other than financial instruments, deferred tax assets, post-employment benefit assets and rights arising from insurance contracts

[60] *Hindustan Petroleum Corporation Ltd. | Oil and Gas Company in India | HPCL*. (2022).

Since the margins increased from US$ 2.67 per barrel in April 2021 to US$ 10.58 per barrel[61] in March 2022, the years 2021 – 2022 were exceptional for refining margins. Globally rising mobility raised the need for more fuel, increasing refined product margins. The year-long closure of all refineries contributed to the recovery of margins. Singapore margins attained a more than 16-year high in March 2022 during the year's fourth quarter. This can be ascribed to disruptions in commodity flows and concerns resulting from sanctions the US and the EU imposed against Russia.

Singapore's refining margins rebounded in the first quarter of 2021 – 2022 and stabilized at US$2.05 per barrel. Despite the rapid spread of the COVID-19 Delta version in South Asia, the demand for transportation fuels remained muted. Due to seasonal steam cracker maintenance, naphtha margins were lower because the product had less demand. Closures of refineries in Australia and South Africa increased regional imports of gasoline, which supported prices. The margins for the quarter averaged US$ 4.52 per barrel due to the slow rebound in demand for jet fuel. Lower demand for bunker fuel in Singapore's hub and more imports from Latin America were factors in the prices being depressed.

[61] *Hindustan Petroleum Corporation Limited Annual Report 2021-22*. (2022). www.hindustanpetroleum.com.

3. ENI

Enrico Mattei, who served as president from 1953 until 1962, founded the multinational company Eni S.p.A., originally abbreviated as Ente Nazionale Idrocarburi, which the Italian government then transformed into a corporation for business operations in 1992.

With 32,188 employees and a presence in 62 countries by 2022, Eni operates in the fields of petroleum, natural gas, chemistry, biochemistry, and the production and marketing of electric energy derived from fossil fuels, cogeneration, and renewable sources.

It was the most important industrial group in Italy by production from 2003 to 2013 and again in 2018 before being overtaken once more by Enel. Eni is ranked 111th in the 2022 edition of the Forbes Global 2000 list of the world's largest companies by revenue, helpful output, active output, and market capitalization. It also ranks 111th in the 2022 edition of the Fortune 500 by revenue. Eni was included in this year's Thomson Reuters Top 100 Global Energy Leaders list and the Thomson Reuters Top 25 list for the Oil & Gas sector.

Between 1995 and 2001, the Italian government sold in five phases a consistent portion of the company's capital while holding onto a more significant percentage than 30% (including the percentages held by the Treasury Department and the Cassa Depositi e Prestiti) and maintaining operational control over the company. According to Law No. 474 of August 30, 1994, the State, through the Ministry of Finance and Economic Development, owns several exceptional powers predetermined standards may exercise that.[62]

Specifically, regarding the onshore pipelines that run from the Algeria-Tunisia border to the Tunisian coast (TTPC) and the offshore pipelines that run from the Tunisian coast to Italy (TMPC), Eni finalized the sale of its 49.9% interest (directly and indirectly held) in the companies operating these two groups of international gas pipelines connecting Algeria to Italy in January 2023 as part of its portfolio optimization efforts. Eni ceded these interests to SeaCorridor Srl, owned by Snam (49.9% stake) and Eni (50.1% interest). Based on the ideas of equal governance, Eni and Snam jointly manage SeaCorridor.

Natural gas supply from Eni's consolidated subsidiaries was 60.59 bcm, down from the full year 2021 by 10.39 bcm or 14.6%.Gas volumes sold outside Italy, imported into Italy, or provided through consolidated subsidiaries (57.19 bcm) made up about 94% of all supplies but were down 10.20 bcm or 15.1% from the full year 2021. This was primarily due to lower volumes bought in Russia (down

[62] *La storia di Eni*. (2023)

13.01 bcm), Norway (down 0.77 bcm), the UK (down 0.74 bcm), Libya (down 0.56 bcm), and Indonesia (down 0.45 bcm), which were partially offset by higher volumes bought in Algeria (up 1.74 bcm), as well as in other European markets, including France, Germany, and Spain (an overall increase of 5.72 bcm). Italy's 3.40 billion cubic meters of supplies showed a 5.3% decline from the year 2021. The most significant amounts of gas produced by equity in 2022 were from the following fields: (i) some Eni fields in the British and Norwegian portions of the North Sea (2.5 bcm); (ii) Italian gas fields (2.1 bcm); (iii) Indonesia (0.8 bcm); and (iv) Libyan fields (0.6 bcm). Roughly six bcm of the entire gas supply from equity production was made available for sale, or roughly 10% of the total gas supply.

The European gas market was characterized by lower demand in price-sensitive industries like the industrial due to increased costs as well as lower consumption due to mild weather conditions. According to this scenario, demand in Italy and the European Union fell by 10% and 13%, respectively, in comparison to 2021. Sales of natural gas totaled 60.52 bcm, a fall of 9.93 bcm or 14.1% from the previous year due to lower sales in Italy and outside of Europe (including Eni's own consumption and Eni's share of sales made by equity-accounted businesses).

SUPPLY OF NATURAL GAS

(bcm)	2022	2021	2020	Change	% Ch.
ITALY	**3.40**	**3.59**	**7.47**	**(0.19)**	**(5.3)**
Russia	17.20	30.21	22.49	(13.01)	(43.1)
Algeria (including LNG)	11.86	10.12	5.22	1.74	17.2
Libya	2.62	3.18	4.44	(0.56)	(17.6)
Netherlands	1.39	1.41	1.11	(0.02)	(1.4)
Norway	6.75	7.52	7.19	(0.77)	(10.2)
United Kingdom	1.91	2.65	1.62	(0.74)	(27.9)
Indonesia (LNG)	1.36	1.81	1.15	(0.45)	(24.9)
Qatar (LNG)	2.56	2.30	2.47	0.26	11.3
Other supplies of natural gas	8.11	2.39	5.24	5.72	239.3
Other supplies of LNG	3.43	5.80	3.76	(2.37)	(40.9)
OUTSIDE ITALY	**57.19**	**67.39**	**54.69**	**(10.20)**	**(15.1)**
TOTAL SUPPLIES OF ENI'S CONSOLIDATED SUBSIDIARIES	**60.59**	**70.98**	**62.16**	**(10.39)**	**(14.6)**
Offtake from (input to) storage	0.00	(0.86)	0.52	0.86	100.0
Network losses, measurement differences and other changes	(0.07)	(0.04)	(0.03)	(0.03)	(75.0)
AVAILABLE FOR SALE BY ENI'S CONSOLIDATED SUBSIDIARIES	**60.52**	**70.08**	**62.65**	**(9.56)**	**(13.6)**
Available for sale by Eni's affiliates	**0.00**	**0.37**	**2.34**	**(0.37)**	**(100.0)**
TOTAL AVAILABLE FOR SALE	**60.52**	**70.45**	**64.99**	**(9.93)**	**(14.1)**

GAS SALES BY ENTITY

(bcm)	2022	2021	2020	Change	% Ch.
Total sales of subsidiaries	**60.52**	**69.99**	**62.58**	**(9.47)**	**(13.5)**
Italy (including own consumption)	30.67	36.88	37.30	(6.21)	(16.8)
Rest of Europe	27.41	27.69	21.54	(0.28)	(1.0)
Outside Europe	2.44	5.42	3.74	(2.98)	(55.0)
Total sales of Eni's affiliates (net to Eni)	**0.00**	**0.46**	**2.41**	**(0.46)**	**(100.0)**
Rest of Europe	0.00	0.32	1.46	(0.32)	(100.0)
Outside Europe	0.00	0.14	0.95	(0.14)	(100.0)
WORLDWIDE GAS SALES	**60.52**	**70.45**	**64.99**	**(9.93)**	**(14.1)**

Eni Annual Report. (2022).

For natural gas transportation in Italy and Europe, Eni holds transport rights on extensive European and North African networks connecting important consuming basins with the primary producing regions (Russia, Algeria, the North Sea, including the Netherlands, Norway, and Libya). The main pipelines are[63] (i) the TTPC pipeline, which is 740 kilometres long and carries natural gas from Algeria; (ii) the TMPC pipeline, which is 775 kilometres long and carries gas from Algeria; (iii) the GreenStream pipeline, which is 516 kilometres long and carries gas from Libya.

[63] *Eni Annual Report*. (2022).

4. HF Sinclair

The HF Sinclair Corporation (HF Sinclair) is a diversified energy firm that produces and markets goods such as speciality lubricants, speciality chemicals, speciality and modified asphalt, as well as gasoline, diesel fuel, jet fuel, and renewable diesel. Its headquarters are in Dallas, Texas.

The corporation has seven complex oil refineries with a combined daily capacity of 678,000 barrels for processing crude oil. It operates refineries in Cheyenne, Wyoming (52,000 barrels per day), El Dorado, Kansas (135,000 barrels per day), Artesia, New Mexico (100,000 barrels per day), Tulsa, Oklahoma (125,000 barrels per day), Woods Cross, Utah (45,000 barrels per day), Sinclair, Wyoming, and Casper, Wyoming. It runs three lubricants and specialities factories in the Netherlands, Petrolia, Pennsylvania, and Mississauga (15,600 bbl/d). Additionally, the business runs asphalt terminals in Oklahoma, New Mexico, and Arizona. Based on its 2020 sales, the company was rated 279th in the 2021 Fortune 500.[64]

For the year ended December 31, 2022,[65] net income attributable to HF Sinclair stockholders was $2,922.7 million compared to net income of $558.3 million and net loss of $601.4 million for the years ended December 31, 2021, and 2020, respectively.The gross refining margin per produced barrel sold in our Refining segment for 2022 increased by 146% over the year ended on. December 31st, 2021.
The results for the year ended December 31, 2022, were favourably impacted by continued vigorous global economic activity, with global demand for transportation fuels, lubricants and transportation and terminal services having returned to pre-pandemic levels. Following the rapid increases in crude oil prices and market crack spreads in the first half of the year, crude oil prices and market crack spreads remained at a high level as a result of continued robust demand and the global supply disruption related to actions taken in response to both the COVID-19 pandemic and sanctions imposed on Russia for its invasion of Ukraine. The company continues to adjust operational plans to the evolving market conditions. The extent to which their future results are affected by volatile regional and global economic or geopolitical conditions.

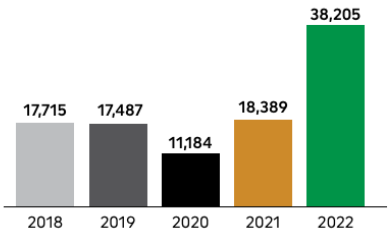
[64] *HF Sinclair Corporation | About Us - Corporate Profile*.
[65] *HollyFrontier Corporation - AnnualReports.com*. (2022). HollyFrontier Corporation.

$ in thousands, except per share data

Year Ended December 31	2021	2022
Sales and other revenues	$18,389,142	$38,204,839
Income before income taxes	$787,152	$3,936,046
Net income attributable to HF Sinclair stockholders	$558,324	$2,922,668
Net income per common share - diluted	$3.39	$14.28
Cash flows from operating activities	$406,682	$3,777,159
Cash flows used for capital expenditures	$813,409	$524,007
Total assets	$12,916,613	$18,125,483
HF Sinclair stockholders' equity	$5,687,885	$9,243,815
Sales of produced refined products - barrels per day ("BPD")	424,100	628,340
Employees	4,208	5,223

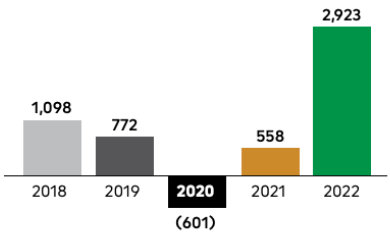
Sales and Other Revenues

$ in millions



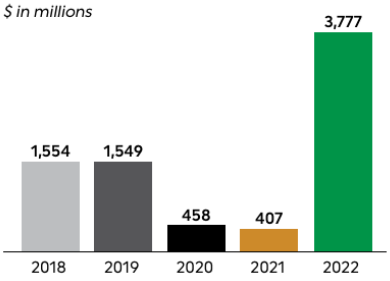
Net Income (Loss) Attributable to HF Sinclair Stockholders

$ in millions



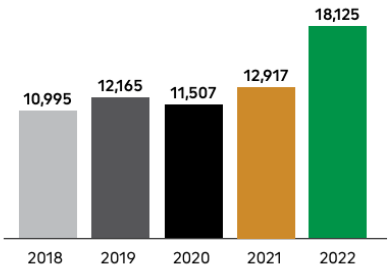
Cash Flows from Operating Activities

$ in millions



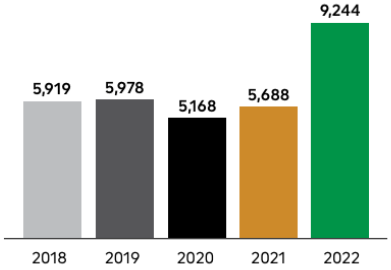
Total Assets

$ in millions



HF Sinclair Stockholders' Equity

$ in millions



AnnualReports.com. (2022). HollyFrontier Corporation.

5. Shell

Previously known as Royal Dutch Shell plc and Koninklijke Nederlandse Shell NV, La Shell plc is a British multinational company operating in energy, petroleum, and petroleum chemistry. One of the four major private global players in the oil and natural gas markets,[66] together with BP, ExxonMobil, and TotalEnergies. In particular, the entire pipeline of petroleum products is focused on, from exploration to actual sales. Shell Chemicals is the focus of his petroleum-related activities, but he also has a sector devoted to renewable energy sources.

The company has operations in more than 140 countries worldwide. However, its primary market is the United States of America, where the subsidiary Shell Oil Company has its headquarters in Houston, Texas. Previously located in Aia, in the Low Countries, where the company had its legal address, the global headquarters are now at the Shell Centre in London. As of 2022, however, the society has moved its legal and administrative headquarters to the United States. The London and Amsterdam stock exchanges are primarily where the transactions are handled. In 2004, revenues of 268 million dollars made the company the fourth-largest enterprise in the world by output, while profits of 18,18 million dollars made the company the second-most profitable enterprise globally.

In 2022, shareholders of Shell plc were entitled to $42,309 million in income, up from $20,101 million in 2021. Income for 2022 was $42,874 million with non-controlling interest included, up from $20,630 million in 2021. After considering the current cost of materials, segment earnings in 2022 totalled $41,562 million, up from $17,482 million in 2021. After adjusting for the tax impact, earnings on a current cost of supplies basis (CCS earnings) do not include the impact of changes in the oil price on inventory carrying amounts. Instead of using the one-time cost determined on a first-in, first-out (FIFO) basis, the purchase price of the volumes sold during the time is based on the current cost of suppliers during the same period. Earnings from CCS are anticipated to be higher than earnings computed on a FIFO basis during declining oil prices and lower than earnings during rising prices.

Earnings for Integrated Gas increased to $22,212 million in 2022 from $8,060 million in 2021. The rise was primarily caused by increased realised prices, trading and optimisation contributions, gains from the fair value accounting of commodity derivatives, and other factors. Lower volumes and higher operational costs offset this. “Integrated Gas” is an excellent place to start. Compared to 2021, when upstream earnings were $9,603 million, they were $16,222 million in 2022. Higher realised prices, benefits from storage and working gas transfer effects, and impairment reversals were the key drivers of the increase. Lower volumes, mainly due to divestitures, as well as costs for the EU solidarity

[66] *Company history | Shell Global*. (2023). Shell Global.

payment and UK Energy Profits Levy, somewhat offset this. Look at "Upstream." Earnings from marketing were $2,133 million in 2022 as opposed to $3,535 million in 2021. More outstanding impairment charges primarily caused the decline, net losses on the sale of assets compared to net gains in 2021, and increased operating expenses (including the consequences of higher volumes). Higher margins partially offset these. Earnings for Chemicals and Products increased to $4,515 million in 2022 from $404 million In 2021. better Product margins (which reflected better Refining margins and increased contributions from trade and optimisation) and lower Impairment charges were the key drivers of the rise. Lower Chemicals margins and higher operating costs offset these. Earnings for Renewables and Energy Solutions fell to a loss of $1,059 million in 2022 from a loss of $1,514 million in 2021. Higher trading and optimisation contributions for gas and power significantly influenced the loss's decline. Higher operational costs and net losses from the fair value accounting of commodity derivatives offset this. In contrast to the $2,606 million in expenses in 2021, corporate section earnings in 2022 were an expense of $2,461 million. Favourable changes in net interest expense were the leading cause of the lower expense. Lower tax credits and unfavourable foreign exchange effects partially offset this. Look up "Corporate". Compared to the 3,237 thousand boe/d in 2021, the amount of oil and gas production available for sale in 2022 was 2,864 thousand boe/d.[67] This net decrease was caused mainly by divestitures, increased maintenance activities, and net field decreases, somewhat offsetting ramp-ups at new fields.

Shell plc Annual Report and Accounts 2022
Consolidated Statement of Income

	Notes	2022	2021	$ million 2020
Revenue	8	381.314	261.504	180.543
Share of profit of joint ventures and associates	13	3.972	4.097	1.783
Interest and other income	9	915	7.056	869
Total revenue and other income		**386.201**	**272.657**	**183.195**
Purchases		258.488	174.912	117.093
Production and manufacturing expenses	8	25.518	23.822	24.001
Selling, distribution and administrative expenses	8	12.883	11.328	9.881
Research and development	8	1.075	815	907
Exploration	8	1.712	1.423	1.747
Depreciation, depletion and amortisation	8	18.529	26.921	52.444
Interest expense	10	3.181	3.607	4.089
Total expenditure		**321.386**	**242.828**	**210.162**
Income/(loss) before taxation		**64.815**	**29.829**	**(26.967)**
Taxation charge/(credit)	22	21.941	9.199	(5.433)
Income/(loss) for the period	8	**42.874**	**20.630**	**(21.534)**
Income attributable to non-controlling interest	8	565	529	146
Income/(loss) attributable to Shell plc shareholders	**8**	**42.309**	**20.101**	**(21.680)**
Basic earnings per share ($)	30	5,76	2,59	(2,78)
Diluted earnings per share ($)	30	5,71	2,57	(2,78)

[67] *Shell Annual Report and Accounts 2022 - Shell plc Annual Report and Accounts 2022*. (2022). Shell Annual Report and Accounts 2022.

6. BP plc

Originally known as the Anglo-Persian Oil Company and formerly known as British Petroleum, the United Kingdom's La BP plc is a company that operates in the energy sector, particularly in the petroleum and natural gas sectors, where it ranks among the world's four most prominent players alongside Shell, ExxonMobil, and Total. The headquarters are in London.

The current BP was created in 1998 when British Petroleum and Amoco (short for American Oil Company) merged to establish BP Amoco. Even though it was formally presented as a merger, the financial operation was more accurately viewed as a purchase of Amoco by British Petroleum; in fact, the word "Amoco" was dropped from the company's name a year later. The company's name changed to "BP". During the same period, a greenwashing public relations campaign used the tagline "Beyond Petroleum", effectively eliminating the word "British" from the name. The change served to preserve the society's new international character and prevent an ostentatious match with the United States from being off-putting to travellers in certain parts of the world. Following a string of acquisitions in the solar energy industry, its business, BP Solar, has become the world's top producer of photovoltaic solar panels. The BP divisions for solar, wind, and hydrogen energy have been consolidated under BP alternative energy.[68]

It has been the subject of numerous criticisms and controversies, including its involvement in the Baku-Tbilisi-Ceyhan oil pipeline project and the Deepwater Horizon oil platform environmental disaster in April 2010 in the Mediterranean Sea. Due to higher oil and product prices in 2022 compared to 2021, sales and other operating revenues increased. In contrast to 2021, when RC profit before interest and tax was $2,208 million, it was $8,869 million in 2022. Items that BP has identified as adjusting for 2022 have a net adverse impact of $1,920 million (including favourable fair value accounting effects of $309 million - relative to management's view of performance), with the majority of these items being net impairments brought on by changes in economic assumptions in the products business and announced portfolio changes.

The underlying RC profit before interest and tax was $10,789 million in contrast to $3,252 million in 2021 after the RC profit was adjusted for the net negative impact of items BP defined as adjusting. A more robust performance in oil trading and refining is reflected in the higher outcome.

Items that BP has designated as adjusting for 2021 had a net negative impact of $1,044 million (including favourable fair value accounting effects of $436 million - relative to management's view of

[68] *Our history | Who we are | Home*. (2023). Bp Global.

performance), mainly concerning impairment charges brought on by increased future spending and anticipated portfolio changes in the products business.

Group income statement

For the year ended 31 December				$ million
	Note	2022	2021	2020
Sales and other operating revenues	6	**241,392**	157,739	105,944
Earnings from joint ventures – after interest and tax	16	**1,128**	543	(302)
Earnings from associates – after interest and tax	17	**1,402**	3,456	(101)
Interest and other income	7	**1,103**	581	663
Gains on sale of businesses and fixed assets	4	**3,866**	1,876	2,874
Total revenues and other income		**248,891**	164,195	109,078
Purchases	19	**141,043**	92,923	57,682
Production and manufacturing expenses		**28,610**	25,843	22,494
Production and similar taxes	5	**2,325**	1,308	695
Depreciation, depletion and amortization	5	**14,318**	14,805	14,889
Net impairment and losses on sale of businesses and fixed assets	4	**30,522**	(1,121)	14,381
Exploration expense	8	**585**	424	10,280
Distribution and administration expenses		**13,449**	11,931	10,397
Profit (loss) before interest and taxation		**18,039**	18,082	(21,740)
Finance costs	7	**2,703**	2,857	3,115
Net finance (income) expense relating to pensions and other post-retirement benefits	24	**(69)**	(2)	33
Profit (loss) before taxation		**15,405**	15,227	(24,888)
Taxation	9	**16,762**	6,740	(4,159)
Profit (loss) for the year		**(1,357)**	8,487	(20,729)
Attributable to				
bp shareholders		**(2,487)**	7,565	(20,305)
Non-controlling interests		**1,130**	922	(424)
		(1,357)	8,487	(20,729)
Earnings per share				
Profit (loss) for the year attributable to bp shareholders				
Per ordinary share (cents)				
Basic	11	**(13.10)**	37.57	(100.42)
Diluted	11	**(13.10)**	37.33	(100.42)
Per ADS (dollars)				
Basic	11	**(0.79)**	2.25	(6.03)
Diluted	11	**(0.79)**	2.24	(6.03)

Annual report | BP Global. (2022).

The underlying RC profit before interest and tax was $10,789 million in contrast to $3,252 million in 2021 after the RC profit was adjusted for the net negative impact of items BP defined as adjusting. A more robust performance in oil trading and refining is reflected in the higher outcome.

Items that BP has designated as adjusting for 2021 had a net negative impact of $1,044 million (including favourable fair value accounting effects of $436 million - relative to management's view of performance), mainly concerning impairment charges brought on by increased future spending and anticipated portfolio changes in the products business. The outcome in 2022 was better than in 2021.[69] Due to realized margins, primarily offset by higher energy costs and turnaround and maintenance activity, the result for refining for the entire year was higher. The tangible outcome was also considered a remarkably successful first half of 2022 for oil trading.

[69] *Annual report* | *Investors* | *Home*. (2022). Bp Global.

Financial and operating performance

	$ million		
	2022	2021	2020
Sales and other operating revenues[a]	**188,623**	130,095	90,744
Profit before interest and tax	**10,235**	5,563	622
Inventory holding (gains) losses★	**(1,366)**	(3,355)	2,796
Replacement cost (RC) profit before interest and tax	**8,869**	2,208	3,418
Net (favourable) adverse impact of adjusting items★[b]	**1,920**	1,044	(330)
Underlying RC profit before interest and tax★	**10,789**	3,252	3,088
Of which:			
customers – convenience & mobility	**2,966**	3,052	2,883
Castrol – included in customers	**700**	1,037	818
products – refining & trading	**7,823**	200	(28)
petrochemicals	**–**	–	233
Taxation on an underlying RC basis	**(2,308)**	(1,210)	(537)
Underlying RC profit before interest	**8,481**	2,042	2,551
Depreciation, depletion and amortization	**2,870**	3,000	2,990
Of which:			
customers – convenience & mobility	**1,286**	1,306	1,200
Castrol – included in customers	**153**	150	161
products – refining & trading	**1,584**	1,694	1,686
petrochemicals	**–**	–	104
Adjusted EBITDA★[c]	**13,659**	6,252	6,078
Of which:			
customers – convenience & mobility	**4,252**	4,358	4,083
Castrol – included in customers	**853**	1,187	979
products – refining & trading	**9,407**	1,894	1,658
petrochemicals	**–**	–	337
Capital expenditure★	**6,252**	2,872	3,315
Of which:			
customers – convenience & mobility	**1,779**	1,564	2,157
Castrol – included in customers	**235**	173	173
products – refining & trading	**4,473**	1,308	1,067
petrochemicals	**–**	–	91

Annual report | *Investors* | *Home*. (2022). Bp Global.

7. Total Energies

Total Energies, formerly known as Total, is a French petroleum company with headquarters in Paris. One of the top four global companies producing oil and natural gas (together with Shell, BP, and ExxonMobil). The company is engaged in the entire chain of gas and petroleum production, from searching for discoveries to selling precisely derived products. La Total is active in the chemistry market as well. Compagnie Française des Pétroles was the name under which the company was founded in 1924. His exploration and emigration activities initially focused on the Middle East before shifting to Africa after the war. The creation of a distribution network in 1947 marked the beginning of the benzine industry. The amalgamation of other pre-existing brands led to the establishment of the Total brand in 1954. The company bought the Italian company "*Aquila*" in 1955, entering the Italian market. His United States-based activities began to expand in 1966.[70]

Oil prices did fluctuate between $80-90/b at the beginning of 2023 in an unpredictable climate where China's economic rebound could offset the potential global economic slowdown and where global consumption is anticipated to increase to more than 100 Mb/d in 2023. OPEC+ nations have demonstrated their willingness to maintain prices over $80/b. The effects of the European ban on Russian petroleum products starting on February 5th, 2023, are anticipated to continue supporting refining margins in Europe, notably for distillates. As the modest increase in worldwide LNG production is predicted to satisfy both higher European LNG demand to replace Russian gas received in 2022 and higher Chinese LNG demand, the tensions on European gas prices observed in 2022 are anticipated to persist into 2023. Total Energies is reinforcing its distinct position in Europe in 2023 by commissioning two floating regasification facilities, the first in Lubmin, Germany. It is now operating while maintaining its growth pace in the LNG market. The Integrated Power business will continue to expand in 2023 after generating $1 billion in cash flow in 2022. Power generation is anticipated to reach more than 40 TWh, a 30% increase year over year, thanks to the full integration of Total Eren, resulting in a commensurate increase in cash flow. Putting in place an energy-savings program will boost Downstream's competitiveness and enable it to take advantage of a beneficial European refining environment. TotalEnergies anticipates net investments of $16-18 billion in 2023, with $5 billion going toward low-carbon energy sources. The Board of Directors confirmed the following cash flow allocation priorities for 2023, which are supported by the strength of the Company's balance sheet and

[70] *TotalEnergies, a pioneering spirit*. (2023). TotalEnergies.com.

its potential for cash generation: - a sustainable ordinary dividend through cycles, which was not cut during the COVID-19 crisis and whose increase is supported by underlying cash flow growth:

- investments to support of a balanced strategy;
- maintaining a solid financial position with "AA" target rating;
- buybacks to repurchase shares of surplus cash flow created at high prices and, in the event of extremely high prices, perhaps a special dividend.

This shareholder return policy for 2023 combines an interim dividend increase of 7.2% to $0.74 per share with share buybacks of $2 billion scheduled for the first quarter.[71]

RECONCILIATION OF ADJUSTED EBITDA WITH CONSOLIDATED FINANCIAL STATEMENTS

Reconciliation of net income (TotalEnergies share) to adjusted EBITDA

(in M$)	2022	2021	2020
Net income - TotalEnergies share	**20,526**	**16,032**	**(7,242)**
Less: adjustment items to net income (TotalEnergies share)	15,671	2,028	11,301
Adjusted net income - TotalEnergies share	**36,197**	**18,060**	**4,059**
Adjusted items			
Add: non-controlling interests	460	331	8
Add: income taxes	20,565	9,211	1,309
Add: depreciation, depletion and impairment of tangible assets and mineral interests	12,316	12,735	13,312
Add: amortization and impairment of intangible assets	400	401	352
Add: financial interest on debt	2,386	1,904	2,140
Less: financial income and expense from cash & cash equivalents	(746)	(340)	(68)
ADJUSTED EBITDA	71,578	42,302	21,112

Reconciliation of revenues from sales to adjusted EBITDA and net income (TotalEnergies share)

(in M$)	2022	2021	2020
Adjusted items			
Revenues from sales	263,206	184,678	119,684
Purchases, net of inventory variation	(171,049)	(120,160)	(75,672)
Other operating expenses	(28,745)	(26,754)	(24,850)
Exploration costs	(574)	(632)	(731)
Other income	1,349	1,300	1,405
Other expense, excluding amortization and impairment of intangible assets	(1,142)	(543)	(337)
Other financial income	812	762	914
Other financial expense	(533)	(539)	(689)
Net income (loss) from equity affiliates	8,254	4,190	1,388
Adjusted EBITDA	**71,578**	**42,302**	**21,112**
Adjusted items			
Less: depreciation, depletion and impairment of tangible assets and mineral interests	(12,316)	(12,735)	(13,312)
Less: amortization of intangible assets	(400)	(401)	(352)
Less: financial interest on debt	(2,386)	(1,904)	(2,140)
Add: financial income and expense from cash & cash equivalents	746	340	68
Less: income taxes	(20,565)	(9,211)	(1,309)
Less: non-controlling interests	(460)	(331)	(8)
Add: adjustment - TotalEnergies share	(15,671)	(2,028)	(11,301)
NET INCOME - TotalEnergies SHARE	20,526	16,032	(7,242)

[71] *Annual reports including annual financial reports*. (2022). TotalEnergies.com. https://totalenergies.com/investors/publications-and-regulated-information/regulated-information/annual-financial-reports

In 2022, 17% of Total Energies' hydrocarbon production came from oil and gas production in Russia. Oil and natural gas were primarily produced in 2022 by the Exploration & Production segment's interests in PAO Novatek (19.4%), which has been deconsolidated since December 31st, 2022, as well as its interest in the Termokarstovoye (49%) and Kharyaga (20%) fields, which were sold on September 15th, 2022, and the respective dates of August 3rd, 2022, and September 15th, 2022.

In the iGRP category, the Yamal LNG project was responsible for Russia's LNG production. The business OAO Yamal LNG started this development project of the onshore South Tambey field (gas and condensates) located on the Yamal peninsula 2013. Through its subsidiary Total Energies EP Yamal, Total Energies has a direct 20.02% ownership stake in the project. A four-train gas liquefaction facility with a theoretical capacity of 17.4 Mt/y of LNG is included in the project.[72] The plant's production reached 21 Mt in 2022, exceeding its nominal capacity. Additionally, through its subsidiary Total Energies EP Salmanov, Total Energies holds a 10% direct interest in the Arctic LNG 2 project (19.8 Mt/y, under construction). Total Energies has stopped classifying the resources connected to the Arctic LNG 2 project as proved reserves as of December 31st, 2021, and has provisioned in its accounts the value of its investments as of March 31st, 2022, due to the uncertainties that technological and financial constraints placed on the ability to complete the Arctic LNG 2 project.

In line with its ownership of Yamal LNG, Total Energies holds 5% of its proved reserves in Russia as of December 31st, 2022, and it no longer recognizes reserves from its holding in Novatek.

According to its principles of conduct published on March 22nd, 2022, Total Energies stopped producing lubricants in Russia at the end of May 2022 in the Marketing & Services segment. In March 2023, it announced the sale of these activities to a company founded by the Russian management team of the subsidiary Total Energies Marketing Russia.

[72] *Groupe TotalEnergies - Broad energy company | TotalEnergies.com*. (2022). TotalEnergies.com.

8. Chevron

Following the dissolution of Standard Oil, the company was founded in 1911 under the name Standard Oil of California. The origins of the society can be traced back to Star Oil, a company that discovered petroleum refineries north of Los Angeles in 1876. The Pacific Coast Oil Company purchased the company in 1879, absorbed by Standard Oil in 1900, and renamed California Standard later.

The company's long-term operations were carried out through the joint venture between Texaco and California Standard, known as Caltex. In 1967, the Vecchio Continent's rodizio was shut down, and Chevron acquired a significant portion of Caltex's holdings in Switzerland, Italy, the Benelux, and Denmark. In contrast to 2021's $8.5 billion, international upstream reported earnings of $17.7 billion in 2022. The rise was principally brought on by increased realizations of $10.0 billion, lower operating costs, lower depreciation, depletion, and amortization attributable to the termination of concessions in Thailand and Indonesia of $1.3 billion, and asset sale profits of $220 million.[73] This was somewhat offset by lower sales volumes of $1.3 billion, primarily brought on by the termination of concessions in Indonesia and Thailand, as well as $1.1 billion in write-off and impairment charges. Earnings of $514 million between periods benefited from foreign exchange effects. Compared to 2021, when it averaged $64.53 a barrel, the company's average realization for international crude oil and natural gas liquids in 2022 was $90.71. In comparison to 2021, when it cost $5.93 per thousand cubic feet, the average natural gas realization in 2022 was $9.75.

International net oil-equivalent production decreased by 7% from 2021 to 2022, reaching 1.82 million barrels per day. The decline was mainly brought on by decreasing production after the Erawan concession in Thailand, and the Rokan concession in Indonesia ended.
The net liquids portion of global oil-equivalent production fell by 13% from 2021 to 2022 to 831,000 barrels per day. Global net natural gas output fell by 2% from 2021 to 2022 to 5.92 billion cubic feet daily. International downstream revenue increased from $525 million in 2021 to $2.8 billion in 2022. The rise in earnings was primarily driven by more significant margins on sales of refined products ($2.7 billion) and a favourable swing in foreign exchange impacts ($50 million) between periods. More extraordinary operating expenses ($650 million), driven mainly by transportation costs, partially offset this increase in earnings.

[73] Chevron Policy, Government and Public Affairs. (n.d.). *Chevron Corporation - Human Energy*. chevron.com.

Sales of refined products increased by 5% to 1.39 million barrels per day[74] in 2022 from 2021, primarily due to increased demand for jet fuel as COVID-19-related travel restrictions continue to loosen.

financial highlights[1]	2022	2021	2020
Net income (loss) attributable to Chevron Corporation	**$ 35,465**	$ 15,625	$ (5,543)
Sales and other operating revenues	**$ 235,717**	$ 155,606	$ 94,471
Cash flow from operating activities	**$ 49,602**	$ 29,187	$ 10,577
Capital expenditures (Capex)	**$ 11,974**	$ 8,056	$ 8,922
Capital and exploratory expenditures (C&E)	**$ 12,296**	$ 8,553	$ 9,517
Acquisitions of businesses, net of cash received	**$ 2,862**	$ -	$ (373)
C&E plus acquisitions (Company investment)	**$ 15,158**	$ 8,553	$ 9,144
Affiliate C&E	**$ 3,366**	$ 3,167	$ 3,982
Total assets at year-end	**$ 257,709**	$ 239,535	$ 239,790
Total debt and finance lease obligations at year-end	**$ 23,339**	$ 31,369	$ 44,315
Chevron Corporation stockholders' equity at year-end	**$ 159,282**	$ 139,067	$ 131,688
Common shares outstanding at year-end (Thousands)[2]	**1,901,048**	1,915,638	1,911,018
Per-share data			
Net income (loss) attributable to Chevron Corporation – diluted	**$ 18.28**	$ 8.14	$ (2.96)
Cash dividends	**$ 5.68**	$ 5.31	$ 5.16
Chevron Corporation stockholders' equity	**$ 83.79**	$ 72.60	$ 68.91
Debt ratio[3]	**12.8%**	18.4%	25.2%
Net debt ratio[3]	**3.3%**	15.6%	22.7%
Return on stockholders' equity[3]	**23.8%**	11.5%	(4.0)%
Return on average capital employed[3]	**20.3%**	9.4%	(2.8)%

[1] Millions of dollars, except per-share amounts

[74] *2022 Annual Report*. (2022). Chevron.com.

9. Equinor

Incorporated in 1972, La Equinor (formerly Statoil) is the largest petroleum company in Norway and employs about 25,000 people. Although Statoil was included on the list of Oslo and New York stock exchanges, the Norwegian government continued to hold the majority with a quota of about 70,9%. The main office is located in the petroleum capital of Norway, Stavanger. The company merged with Norsk Hydro on October 1st, 2007, to become Statoil Hydro, the world's largest offshore oil and gas company. Since March 15th, 2018, Equinor's name has changed.

One of the biggest global sellers of gasoline and a significant supplier of natural gas for Europe, Statoil also has a network of 2000 service stations spread across nine countries. Helge Lund replaced Aker Kvaerner, who took over as administrator for the merger at the halfway point of 2004. On December 18th, 2006, Statoil announced a proposal to merge with the Norwegian conglomerate Norsk Hydro's gas and petroleum division. The merger has taken place, and the largest petroleum company in the world among those with open offshore drilling operations is the result.

A historic energy crisis hit Europe in 2022, made worse by Russia's invasion of Ukraine and further disrupted the energy markets. A prolonged period of exceptionally high commodity prices, particularly for gas, peaked at about 90 USD/MMBtu in August 2022,[75] resulting from tight energy markets and rising demand.

In reaction to the conflict in February 2022, Equinor decided to leave the Russian market and sell off all of its holdings there. As a result, a $1,083 million impairment was recognised regarding the Russian assets. All exit activities were completed within the year, and Equinor has no plans to invest more in the nation. With the restart of Snhvit and Peregrino in the middle of the year and the start-up of Peregrino phase 2 in the fourth quarter, Equinor accomplished some significant operational milestones during the year. All contributed significantly to compensate for the output loss caused by Russia's withdrawal. Due to a switch from gas injection to gas export, gas production was expedited on some NCS assets in response to the energy crisis in Europe. This substantially impacted the year's gas production from E&P Norway, which increased by 8%. It also helped to drive a global increase in gas production of 2% for 2022 compared to 2021. Compared to 2021, total liquids and gas output decreased despite increased gas production, restart activities, and the coming online of new assets. Reduced production levels in 2022 compared to the prior year resulted from Equinor's pullout from Russia, announced early in 2022, and turnaround activity in the US over the year.

[75] *Our history*. Equinor. (2023).

Condensed income statement under IFRS

(in USD million)	2022	2021	Change
Revenues	**149,004**	88,744	68%
Net income/(loss) from equity accounted investments	**620**	259	>100%
Other income	**1,182**	1,921	(38%)
Total revenues and other income	**150,806**	90,924	66%
Purchases [net of inventory variation]	**(53,806)**	(35,160)	53%
Operating, selling, general and administrative expenses	**(10,593)**	(9,378)	13%
Depreciation, amortisation and net impairment losses	**(6,391)**	(11,719)	(45%)
Exploration expenses	**(1,205)**	(1,004)	20%
Net operating income/(loss)	**78,811**	33,663	>100%
Net financial items	**(207)**	(2,080)	90%
Income/(loss) before tax	**78,604**	31,583	>100%
Income tax	**(49,861)**	(23,007)	>100%
Net income/(loss)	**28,744**	8,576	>100%

The reduced production levels have been compensated by significantly higher realised prices and an optimised product split, which is the cause of the significant year-over-year increase in net operating income for 2022 compared to 2021. The optimisation and trading of European gas and power sales, high refining margins, and clean spark spread all contributed significantly to the total business performance in 2022 compared to the exact times the previous year.

Review of cash flows

Consolidated statement of cash flows

	Full year	
(in USD million)	2022	2021
Cash flows provided by operating activities	**35,136**	28,816
Cash flows used in investing activities	**(15,863)**	(16,211)
Cash flows provided by/(used in) financing activities	**(15,414)**	(4,836)
Net increase/(decrease) in cash and cash equivalents	**3,860**	7,768

Equinor Annual Report. (2022).

While price realisation has increased margins, Equinor has also seen an increase in operational costs due to inflationary pressures. The leading causes of this increase were expenses for energy, well upkeep, and environmental levies. The increase in operating costs.

The total operating cash flow has grown from USD 28,816 million in 2021 to USD 35,136 million in 2022. Financial solid results fueled by consistently high commodity prices and stable production cause this gain, offset by a corresponding rise in tax payments of USD 35,268 million. The amount of cash used for investing operations has remained steady from the previous year. See note 11 Income taxes to the Consolidated Financial Statements for more details.

The cash flow needed for financing activities increased by USD 10,577[76] million from USD 4,836 million in 2021 to USD 15,414 million in 2022 due to a considerable rise in shareholder capital distribution. Additionally, due to higher margin requirements for exchange-traded derivatives, Equinor raised the payment of short-term loans and saw higher collateral payments than in the previous year.

[76] *Annual reports*. (2022). Equinor. https://www.equinor.com/investors/annual-reports

10. Exxon Mobil

ExxonMobil, sometimes known as the Exxon Mobil Corporation, is one of the world's most significant American oil companies. It operates under the Esso and Mobil brands in the European market. It is the outcome of the Exxon and Mobil merger, which occurred on November 30th, 1999.[77]
In 2005, it generated profits of 36,13 million dollars (a record for a quoted company), just shy of the Azerbaijani Prodotto Internal Leader. However, its output exceeded the PIL of Saudi Arabia by 30,5 million dollars. His general neighbourhood is Irving, a suburb of Dallas. The merger of Exxon and Mobil has special significance in American history because it brought together the two major companies that made up John Davison Rockefeller's Standard Oil trust: the Standard Oil Company of New Jersey, which gave rise to Exxon, and the Standard Oil Company of New York, which gave rise to Mobil. Due to recent business mergers, ExxonMobil has surpassed the other two members of the "Big Four" of the global oil industry, BP and TotalEnergies, to become the second-largest private entity in the world, behind Shell.

Increased operational efficiencies and lower overhead expenses were made possible by organizational adjustments made during the previous few years, which allowed the Corporation to realize structural cost savings of $7 billion compared to 2019. Completing the workforce reduction projects, projected to save around $2 billion annually compared to 2019, is included in these savings. This is because of decreased employee and contractor costs. The Corporation keeps simplifying its organizational structure to increase efficiency and cut costs. The modifications increase the market line of sight, better utilize global functional capabilities, and allocate resources to the most critical corporate priorities.
Early in 2022, the Corporation declared it would stop working on the Sakhalin-1 project ("Sakhalin") and create exit strategies in response to Russia's military intervention in Ukraine. In its first-quarter financial results, the Corporation recorded after-tax charges totalling $3.4 billion, representing impairment of its Sakhalin-related activities (see Note 2 for further details on Russia). The Corporation's affiliate continued concerted efforts to engage in good-faith departure discussions with the Russian government and all Sakhalin partners. At the same time, it was under force majeure due to the effects of international sanctions. The Corporation focused on maintaining operational integrity, environmental preservation, and public safety. The Russian government unilaterally terminated the Corporation's holdings in Sakhalin through two decrees that took effect on October 14 and transferred management to a Russian operator.

[77] *Our history*. (2023). ExxonMobil. https://corporate.exxonmobil.com/who-we-are/our-global-organization/our-history

The expropriation's effects on the Corporation's numerous liabilities relating to Sakhalin are primarily reflected in an after-tax benefit of $1.1 billion in the fourth quarter results of the Corporation. At year's end in 2022, due to the Corporation's withdrawal from the project, about 150 million barrels of oil equivalent will no longer qualify as proved reserves.

CONSOLIDATED STATEMENT OF INCOME

(millions of dollars)	Note Reference Number	2022	2021	2020
Revenues and other income				
Sales and other operating revenue	18	398,675	276,692	178,574
Income from equity affiliates	7	11,463	6,657	1,732
Other income		3,542	2,291	1,196
Total revenues and other income		**413,680**	**285,640**	**181,502**
Costs and other deductions				
Crude oil and product purchases		228,959	155,164	94,007
Production and manufacturing expenses		42,609	36,035	30,431
Selling, general and administrative expenses		10,095	9,574	10,168
Depreciation and depletion (includes impairments)	2, 9	24,040	20,607	46,009
Exploration expenses, including dry holes		1,025	1,054	1,285
Non-service pension and postretirement benefit expense	17	482	786	1,205
Interest expense		798	947	1,158
Other taxes and duties	19	27,919	30,239	26,122
Total costs and other deductions		**335,927**	**254,406**	**210,385**
Income (loss) before income taxes		**77,753**	**31,234**	**(28,883)**
Income tax expense (benefit)	19	20,176	7,636	(5,632)
Net income (loss) including noncontrolling interests		**57,577**	**23,598**	**(23,251)**
Net income (loss) attributable to noncontrolling interests		1,837	558	(811)
Net income (loss) attributable to ExxonMobil		**55,740**	**23,040**	**(22,440)**
Earnings (loss) per common share *(dollars)*	12	**13.26**	**5.39**	**(5.25)**
Earnings (loss) per common share - assuming dilution *(dollars)*	12	**13.26**	**5.39**	**(5.25)**

The information in the Notes to Consolidated Financial Statements is an integral part of these statements.

Exxon Mobil Annual Report. (2022).

The Corporation owns a 25% working interest in the Kashagan oil field in Kazakhstan and a 16.8% working stake in Tengizchevroil, LLP (TCO), which manages the Tengiz and Korolev oil fields in Kazakhstan. Through the Caspian Pipeline Consortium (CPC), in which the Corporation owns a 7.5 per cent stake, the oil produced by those projects is exported. To reach tanker loading facilities on the Russian Black Sea coast, CPC travels through sections of Kazakhstan and Russia. The movement of Kazakhstani oil through the CPC pipeline may be interfered with, limited, temporarily interrupted, or subject to other restrictions if Russia responds to the sanctions imposed due to its military activities in Ukraine. The Corporation may incur a temporary reduction of cash flows from its operations in Kazakhstan. For comparison, the Corporation's after-tax revenues from its investments in Kazakhstan

were over $2.5 billion in 2022,[78] and its contribution to global oil and gas output was roughly 246 thousand oil-equivalent barrels per day.

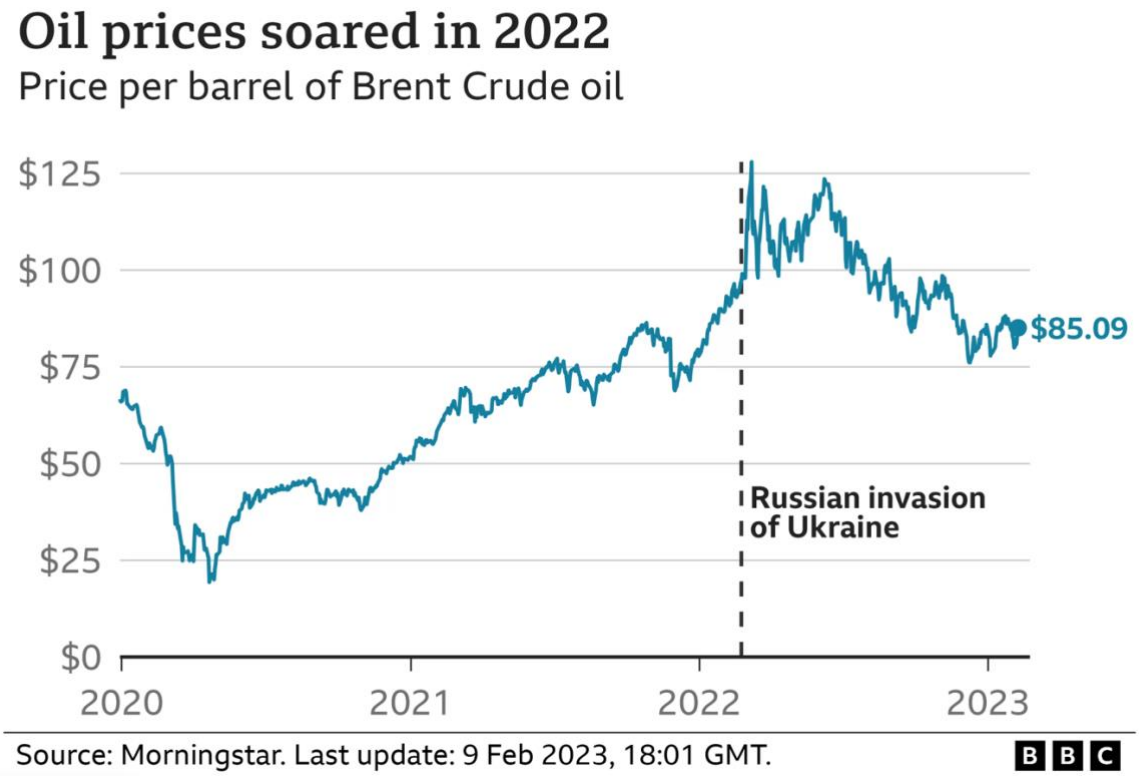
The adoption of an EU Council Regulation by the member states of the European Union ("EU") on October 6, 2022, included further measures as well as the introduction of a new tax that was dubbed an "emergency intervention" to address the high cost of energy. Certain businesses operating in the crude oil, coal, natural gas, and refinery industries were subject to an obligatory tax under this law. The regulation mandated that Member States impose a minimum 33 per cent tax on "surplus profits" from in-scope enterprises in 2022 and 2023, defined as taxable profits exceeding 120 per cent of the average annual profits from 2018 to 2021. By December 31, 2022, EU Member States had to enact the tax or a comparable domestic policy. The adoption of these measures by Member States had an after-tax impact on the Corporation's fourth-quarter 2022 results of about $1.8 billion, primarily represented in the line "Income tax expense (benefit)" on the Consolidated Statement of Income.
Depending on commodity prices and levels of taxable revenue, the future effects of this legislation and other measures imposed on the energy sector by EU Member States and the UK during the past few months could result in a loss in earnings of up to $2 billion.

[78] *Annual reports & proxy*. (2022). Exxon Mobil Corporation. https://investor.exxonmobil.com/company-information/annual-reports-proxy

4.4 Conclusions

The large oil corporations, including ExxonMobil, Norway's Equinor, and UK-based BP and Shell, have been releasing astounding profit numbers. They are all profiting from the rise in oil and gas prices due to the invasion of Ukraine. People struggle to pay their electricity bills and fill up their automobiles while these businesses earn handsomely, prompting calls for additional taxation on these businesses. Worldwide trading in oil and gas results in price increases if sellers may charge more due to low supply and high demand. Russia was the most significant oil and natural gas exporter before the Ukraine War. The Russian government received a large portion of the money consumers paid for that oil and gas; in 2021, such exports accounted for 45% of the country's budget.

After the invasion, Western nations – including the UK and EU – tried to halt (or at the very least drastically cut) their energy imports from Russia to avoid supporting a hostile regime and financing the Russian military. Oil produced elsewhere had to be purchased significantly higher prices by nations who did not want to purchase from Russia. As economies recovered from Covid-19 lockdowns, oil prices had already risen due to the increased demand for the commodity.



The price of oil surpassed $100 per barrel the day following the Russian invasion, reaching a peak of almost $127 in March before falling back to about $85. After the invasion, gas costs also rose sharply. Almost every aspect of modern life depends on oil and natural gas. Natural gas is used for heating and cooking, whereas oil is utilized to generate gasoline and diesel. They are also utilized in industrial processes that produce everything from plastic to fertilizer and agriculture, electricity production, and other industries. Therefore, a persistent increase in oil and gas costs drives up the price of many other products we consume, fueling the recent cost of living crisis that has engulfed the EU and other nations.

Oil firms make money by finding oil and gas reserves hidden in rocks beneath the earth's surface and drilling down to liberate them. The costs do not change significantly despite pricing changes, but sales revenue does. Therefore, when oil prices surged during the invasion of Ukraine, the revenue these corporations received from selling oil and gas also significantly increased. BP declared record annual profits of $27.7 billion (£23 billion), even though it has pushed back its intentions to cut back on its oil and gas production by 2030. These profits were more than twice what they were the year before. Shell announced its most significant profits in 115 years in February. In 2022, profits doubled from the prior year to $39.9 billion (£32.2 billion). [79]

Higher dividends and the purchase back of shares (which raises the share price) are two ways to distribute some of the additional profits to shareholders. Oil firms must function in a world where the price of oil can change abruptly, going up and down. Profits from good years help offset losses from years with low oil prices. Many oil corporations lost billions of dollars on their interests in Russia last year; for instance, BP wrote off $24 billion in stakes in Rosneft, a Russian oil business.

In order to maintain the oil supply until the world transitions to renewable energy sources, they must also invest billions in the search for new oil reservoirs.

In that transition, energy corporations will also play a significant role. Some of the billions that BP and Shell earn from the sale of oil and gas are put toward the construction of solar and wind farms and electric vehicle charging facilities. Bernard Looney, the CEO of BP, claimed that the British business was "helping provide the energy the world needs" while funding the switch to green energy.

These are "challenging times - we are seeing inflation rampant around the world," according to Shell CEO Wael Sawan, but Shell is doing its part by investing in renewable technologies.

[79] King, B. B. (2023, February 12). Why are BP, Shell, and other oil giants making so much money right now? *BBC News*. https://www.bbc.com/news/business-64583982

According to Shell’s chief financial officer Sinead Gorman, the company paid $13 billion in taxes worldwide in 2022. However, due to the high demand for oil and gas, BP reduced its plans to reduce its carbon emissions this year. Nevertheless, the calls for more taxes will persist as long as the billions come in and consumers struggle to pay their bills.

The energy price cap was implemented in 2019 to prevent businesses from overcharging customers who failed to shop around for better prices. It does not impact the earnings of oil and gas producers; instead, it targets energy suppliers.

5. Summary

5.1 The Historical Context

With unprecedented speed, breadth, and global coordination, the current sanctions against Russia have significantly impacted the global balances. It is essential to weigh the opportunity cost of military spending and the cost of repairing post-war damage before the start of the conflict. The EU imported Russian gas and oil worth €200 billion annually in 2019, which was treble the G7 countries' total foreign exchange holdings at the end of 2021. Prices on the global market increased due to a ban on Russian oil imports, creating a supply shock whose effects can be mitigated by trading with different providers. The EU can lessen its dependency on Russian supply by redesigning the European energy system and building networks to connect and diversify smaller potential energy producers.

Oil and coal can be exported with little to no infrastructure requirement, but gas trading is strictly infrastructure-reliant, which limits its ability to diversify. Due to its heavy reliance on Russian imports, 40% of the EU's gas supply would only be recovered if gas production were to stop. However, due to the interdependence of commerce, if its exports are stopped, Russia stands to lose more. Only 8.4% of the EU's total energy needs are met by Russia, and the EU is more likely to diversify its energy sources than Russia is to do the same with its export markets (WEF, 2022). Some scholars claim that if Russia's shipments to Europe were to stop, EU imports from substitute suppliers would need to rise by 70%, which would be extremely expensive in the short term. Long-term cost-effectiveness would result from the move as the economy would eventually respond (Pisani-Ferry, 2022). One of the critical advantages of strategic sourcing diversification is gaining autonomy. The EU must either decrease domestic demand to lower import demand or look for alternative sources of supply, such as retiring nuclear power reactors and implementing renewable energy, to lessen its current dependency on Russia. Germany, Italy, and most countries in Central and Eastern Europe continue to rely on Russian natural gas, even though the trade dependency of the Eurozone has generally decreased. According to Bachmann et al. (2022), energy consumption can be attributed to Russian imports used in the industry (for heating and cooling reasons), households, trade and commerce, electricity production, and transportation. Russian gas imports to the EU have decreased from 40% to 20% to 30% since June 2021 and the start of 2022 (McWilliams, Sgaravatti, and Zachmann, 2022). Prior to the escalation of the Ukraine crisis, prices for gas, oil, and coal in the EU rose as a result of the removal of COVID-19 restrictions, the strengthening of the US dollar, and OPEC's unwillingness to increase extraction (Bachmann et al., 2022). The amount of gas required to produce electricity can be decreased using lignite, hard coal, or nuclear energy.

The financial strain on the European economy can be significantly reduced if energy generation in industrial power plants moves to alternative input uses and costs are reduced due to lower imports and alternative energy sources (Mahler, 2007). On the global market, several different sources are available. Thus, by switching suppliers, Russian oil imports might be replaced. In order to prevent more losses in 2023, action should be taken regardless of the embargo because the entire cost will rely on when specific policy actions are implemented.

Many like-minded countries, including the EU, the US, the UK, Canada, Japan (G7 countries), Australia, Singapore, South Korea, Taiwan, Norway, and Switzerland, decided to impose sanctions on Russia after its total invasion of Ukraine in February 2022. Russia currently has more sanctions in place than North Korea. Even still, two-thirds of the world's population lives in countries that either support Russia in the Ukraine War or are neutral, even though the countries that comprise the "sanctions coalition" represent more than half of the global economy. Russia's neighbours like Armenia and Central Asian countries, as well as critical commercial partners like Turkey or the remaining BRICS countries (Brazil, India, China, and South Africa), do not impose sanctions. Russia currently has lots of room to import commodities from third countries, reexport goods directly or indirectly, or set up a false transit to avoid the sanctions because they are multilateral rather than global. Significantly, since the 2022 war began, Russian exports to Brazil, China, India, and Turkey have increased by at least 50% compared to the prior year, while Turkish exports to Russia have increased by 46% in the six months after the imposition of sanctions. In addition, the United Arab Emirates has continued to provide refuge to Russian businesspeople and government officials who would otherwise be vulnerable to Western sanctions. The largest country in Central Asia, Kazakhstan, previously considered a Russian ally, has taken two potentially significant decisions: tightening visa requirements for Russian citizens and closing its commercial office there.

With David O'Sullivan's selection as the first international special envoy to implement EU sanctions, the EU has stepped up its "sanctions diplomacy." He will forge alliances with other parties, tackle sanction evasion, and set up a "Sanctions Coordinators Forum" to strengthen international enforcement. The Member States are primarily responsible for putting EU sanctions into effect and upholding them. The accountable authorities in the Member States must establish whether there has been a legal infraction and take the appropriate action.

5.2 Global Sanctions on Russia's Government

The Member States are in charge of carrying out and enforcing the regulations imposing restrictive measures approved under Article 215 TFEU. The European Commission is in charge of coordinating their activities. Assisting individuals, groups, businesses, aid workers, and Member States in their efforts to impose sanctions are guidance notes, best practices, and responding to interpreting inquiries from competent national authorities. The Commission has also created a system for reporting violations of EU sanctions that allows information to be gathered from all relevant sources while, if necessary, retaining anonymity. The Commission established the "Freeze and Seize" Task Force to efficiently implement EU sanctions on certain Russian and Belarusian oligarchs across the EU. It was done so that the Commission could carry out its coordination duties. The Task Force comprises the Commission, national contact points from each Member State, Eurojust, Europol, and any other necessary EU institutions and authorities. It operates in four subdivisions:

1. Asset reporting and the reporting of the frozen ones;
2. The sharing of best practices for asset forfeiture and criminal investigations;
3. The establishment of a Common Fund for Ukraine;
4. Tax enforcement.

Under Article 83.1 TFEU, the Council resolved in November 2022 to include penalties for violations of the offences that constitute "EU crimes." Shortly after, the Commission announced its proposal for a regulation "on the definition of criminal offences and penalties for the violation of Union restrictive measures" to establish consistent minimum requirements throughout the EU, which was a crucial step for putting the ruling above into action. Analysts claim that the directive is currently being ratified and represents "a significant milestone in the harmonization of EU sanctions enforcement, as well as in the development of European criminal law more generally." The eleventh package of sanctions (effective as of February 25th, 2023) adds new reporting requirements to ensure the execution of the asset freeze prohibitions. A group of EU Member States, led by the Netherlands, have proposed setting up centralized EU sanctions monitor to address sanctions enforcement and circumvention. This plan aligns with earlier suggestions made by Mairead McGuinness, EU Commissioner for Financial Services and Stability. Depending on how severe the energy restrictions are and how the EU and Russia are responding,

The data suggests that:

1. Energy sanctions will directly impact energy trade, causing the EU's energy imports to be diverted to non-Russian markets;
2. Russia's countersanctions will directly affect the EU's economy but will not improve it;
3. Energy sanctions will directly impact energy trade, causing the EU's imports of energy to be diverted to non-Russian markets;
4. Russia's countersanctions will increase global inflation. Energy-related games will harm international efforts to cut carbon emissions and reform how we use energy.

The energy trading agreement will significantly transform due to the EU's energy sanctions against Russia. The EU and G7 sanctions have severely affected the business environment with Russia. The cost of Russia's countersanctions has hurt their kids even though they have achieved their policy objectives. Imagine that the EU imposes strict energy sanctions against Russia, causing the two countries' energy trade to be suspended. If that is the case, it will be highly detrimental to the interaction between the two sides. The EU's overall situation will worsen due to the protracted energy supply constraint, which will knock on trade in other EU industries, such as energy-intensive, agriculture, and chemical industries. Energy rivalry between the EU and Russia has raised global oil prices, which has helped more energy exporters by boosting their earnings and energy exports.
Regarding how energy sanctions affect the import and export commerce between the two parties, sanctions and countersanctions significantly influence exports for Russia and imports from EU member states. The EU has lowered tariffs on energy imports from other nations in proportion to filling the energy gap, which has helped other nations' economies to some extent. The EU's overall energy imports will be immediately reduced by imposing sanctions on member states' energy imports. Given the practical difficulty the EU faces in immediately changing the structure of the energy trade, energy import restrictions are likely to emerge as the most significant unknown threat to the EU's energy security.

5.3 Russia's Measures Against Foreign Investors

As evidence of the swift response of the international community to the invasion of Ukraine, a variety of sanctions against Russia, including the freezing of Central Bank assets, import and export bans, and actions targeting specific individuals, are in place (European Commission, EU sanctions against Russia following the invasion of Ukraine; US Department of Treasury, Ukraine/Russia-Related Sanctions). On March 7th, 2022, the Russian government authorizes a list of unfriendly countries and territories, TASS. Russia has responded by proposing and enacting a series of "measures" that are directed against foreign corporations from States and territories that take "unfriendly" activities against Russia, its companies, and its citizens ("Unfriendly States"). Following the pandemic, Russia, a historically significant recipient of FDI, announced plans to modernize the system of special investment contracts and forecasted that up to 1,000 such agreements would be signed by 2024, amounting to 185 billion USD in FDI. The Measures, however, put billions of dollars worth of cumulative FDI at risk and discourage foreign investment in Russia. The Measures could lead to claims being made against Russia under its existing international investment agreements ("IIAs") and have a significant impact on investors from Unfriendly States and their current investments.

Given the effects of the Measures on international enterprises conducting business in Russia, foreign investors may bring claims against Russia for breaking its obligations under Russian IIAs.

There are now 27 bilateral investment treaties ("BITs") in force between Russia and Unfriendly States (see Investment Policy Hub, Russian Federation). Like the International Energy Charter, Russia and the Energy Charter Treaty, August 7th, 2014, the Energy Charter Treaty (the "ECT"), signed by Russia in 1994 and whose provisional application was authorized until 2009, was also terminated in 2009. However, the latter is still valid for investments made during the most recent period of 20 years under Article 45(3) of the ECT. International investors may file investment arbitration claims based on these agreements against Russia if they contain an investor-State arbitration clause.

The ECT and the Russian BIT contain several vital protections for overseas investors. The primary subjects are the most favoured country ("MFN"), national treatment, and unfettered money transfers.

The 1965 Convention for the Settlement of Investment Disputes between States and Nationals of Other States ("ICSID Convention") has been ratified by Russia, but it has not yet been effective. As a result, foreign investors are not permitted to file arbitration claims based on this basis. However, ad hoc investor-State arbitrations under various BITs may apply the Arbitration Rules of the United Nations Commission on International Trade Law ("UNCITRAL") or alternative arbitration rules.

Charges of direct or indirect expropriation against Russia may result from the Measures. Evidence has been used to support the conclusion that actions similar to the statute establishing the regime of external management on affected firms constitute a wrongful expropriation and deprive investors of their property. Similar claims against Russia have already been made in PrivatBank and Finilon v. Russia in response to the invasion and subsequent annexation of Crimea from Ukraine. One of the actions taken by Russia in this instance was the transfer of the Bank's assets into a trust managed by a depositor fund under State supervision. The 1998 Russia-Ukraine BIT states that Russia was responsible for the illegitimate seizure. The Iranian government took similar measures against the claimant in Phillips Petroleum Co. Iran v. Iran, including terminating the joint venture agreement and appointing government-selected directors to the management position. The Tribunal found that the relevant actions amounted to expropriation because the government's interference deprived the claimant of ownership rights.

5.4 Case Study and Conclusions

Turkey, India, and China are now the top three nations importing Russian oil. Global Witness records show that despite this, Western companies played a significant part in the deal that allowed Russia to export 533 million barrels of oil and items related to oil since February 24th of last year. Western oil traders should have broken the sanctions by dealing with Russia before the war officially began. However, those who persisted in trade benefited from the growing costs of the invasion, enabling Putin to enlarge the military coffers of the Kremlin. Using data that was commercially available, Global Witness looked at the seaborne shipments of crude oil and oil derivatives from Russian origin to the rest of the world. We can determine which companies profited from the trade and the current destination of Russian oil.

Since the start of the conflict, Russia has exported over 1.22 billion barrels of crude oil by sea, with a total estimated worth of $97 billion, according to publicly accessible data. Nine hundred twenty-eight million barrels of refined oil products have been sent to other nations since February 24th. Western trading companies and oil majors have continued to trade a sizable amount of Russian oil since the invasion began, doing so in the amount of 533 million barrels, including more than 171 million barrels of crude oil valued at an estimated $14.8 billion and an additional 362 million barrels of refined products. It is almost equal to 25% of all the oil exported by sea from Russia in 2017.

With the assistance of Vitol, the primary Western oil dealer, Russia has sold more than 113 million barrels of oil and oil products, including crude oil, worth an estimated $2.4 billion since the invasion. The Netherlands-based company, whose senior executives include former U.K. government minister Alan Duncan, came under fire last year for increasing its trade with Russian ports following the invasion, particularly from a Zelenskyy administration advisor. After receiving requests, Vitol declared in April that it would “cease trading crude oil and products of Russian origin.” According to Vitol, it conducts business “in full compliance with all applicable laws and regulations,” the quantity of Russian crude oil and goods it now deals with is “negligible.”

ExxonMobil, Equinor of Norway, BP and Shell of the UK, and other major oil companies have announced incredible profit figures. As a result of the invasion of Ukraine, oil and gas prices have increased, benefiting everyone. While these corporations make large profits, many find it difficult to pay their utility bills and fill up their cars, which has led to calls for more taxes on these companies. Because of the low supply and high demand, international trade in oil and gas can lead to price rises from sellers. Before the Ukraine War, Russia was the major exporter of gas and oil.

The money consumers paid for the oil and gas went mainly to the Russian government, which in 2021 got 45% of the export revenue.
Following the invasion, Western countries, mainly the UK and EU, attempted to stop (or at the very least significantly reduce) their energy imports from Russia to avoid assisting a hostile government and providing funding for the Russian military. Nations that did not wish to buy from Russia had to pay much higher costs for oil produced elsewhere. Oil prices had already risen when economies emerged from Covid-19 lockdowns because of the increasing demand for the commodity.

This study has been carried out by randomly sampling ten oil companies from different continents, including *the big 4* (Shell plc, Exxon Mobil Corporation, BP plc and TotalEnergies), to compare their performances after the kick in of the restrictions on oil markets.
The main conclusion is that oil companies do profit from discovering oil and gas deposits trapped in underground rock formations and the subsequent drilling necessary to release them. Despite price changes, costs do not alter considerably, but sales revenue does. As a result, these businesses saw a considerable boost in revenues from the sale of oil and gas during the spike in oil prices during the Ukraine invasion. BP announced record annual profits of $27.7 billion (£23 billion), despite delaying its plans to reduce oil and gas production by 2030. More than twice as much money was made this year as the previous year. In February, Shell revealed its most considerable profits in 115 years. Profits increased twice from the previous year to $39.9 billion (£32.2 billion) 2022. Because many ordinary people own shares in BP, Shell, and other multinational oil companies, not all of their earnings are lost. They might need to be made aware of this through their pension savings.
Two ways to disperse part of the more significant revenues to shareholders are through higher dividends and the purchase back of shares (which increases the share price). Oil companies must operate in a world where oil prices are subject to sudden ups and downs. Profits from good years offset losses from years with low oil prices. Last year, numerous oil companies suffered enormous losses related to their investments in Russia; for instance, BP wrote off $24 billion in holdings in Rosneft, a Russian oil company. They must also spend billions on the quest for new oil reservoirs to keep the oil supply steady until the globe switches to renewable energy sources.

Energy companies will be crucial to that change as well. A portion of the billions that BP and Shell make from the sale of oil and gas is used to build solar and wind farms and infrastructure for charging electric vehicles. BP's CEO, Bernard Looney, asserted that his company was "helping to provide the energy the world needs" and financing the transition to green energy.

According to Shell CEO Wael Sawan, these are “challenging times - we are seeing inflation rampant around the world,” but Shell is doing its part by investing in renewable technologies. Sinead Gorman, chief financial officer at Shell, reported that the corporation paid $13 billion in taxes globally in 2022. However, BP scaled back its goals to cut its carbon emissions this year due to the high demand for oil and gas. Nevertheless, as long as the billions pour in and consumers struggle to pay their bills, the calls for higher taxes will continue. For what concerns the Price Cap, it targets energy suppliers and it is not affecting oil and gas producers’ earnings.

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