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Research Intelligence

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The potential impacts of the Ukraine war on the Thai economy

The explosion of long-running tensions between Ukraine and Russia into invasion and open warfare will not just lead to terrible loss of life and destruction of property in the immediate environment, but because of the extremely high levels of uncertainty around the situation, the conflict is also piling on risk for global trade and the world economy generally. Against this backdrop, Krungsri Research has analyzed the likelihood of different outcomes, and **three scenarios have emerged as the most probable. These are: (i) the conflict comes to an end in March, with sanctions against Russia remaining in place until the end of 2022; (ii) fighting extends into 2Q22, and in response, the West impose tighter sanctions; and (iii) the shooting war continues into mid-2022, with correspondingly stiffer sanctions imposed on Russia that are met with a Russian block on energy exports to Europe.** These scenarios will impact trade and economies through four main channels, namely trade and transport, energy security, price stability, and income effect and capital markets.

Krungsri Research has used the Dynamic Stochastic General Equilibrium (DSGE) model to assess the impacts of the conflict on both the global and the Thai economies, and the results of this show that for each of the 3 scenarios, compared to the baseline case, **2022 global growth will shrink by 0.5%, 1.3%, and 2.9%**, while inflation will be respectively 1.3%, 2.0%, and 3.6% higher than the baseline.

For Thailand, losses to 2022 economic growth are fractionally lower at 0.4%, 1.1% and 2.4% compared to the baseline. Under these scenarios, Thai domestic inflation is also 1.4%, 2.3% and 3.5% higher than it would be otherwise, while exports shrink by respectively 1.1%, 3.0%, and 4.7%.

Thai industrial sectors that are likely to experience a significant level of impacts will include construction, transport, oil refining, maritime shipping, and real estate, all of which will have to contend with higher prices, especially from metals and the energy prices. However, these same higher prices taken together with trade diversion will mean that some industries will likely benefit from stronger output. This group is expected to include producers of oil and natural gas, sugar processors, and manufacturers of clothing, electronics and leatherware.

The situation in Ukraine remains fluid, and unfortunately, there is a wide range of channels through which its impacts may be transmitted to the world stage. The invasion also comes at a time when the global rebound from the Covid-19 pandemic is stoking inflationary pressures, and thus both the war itself and the harsh sanctions imposed on Russia by the West run the risk of worsening pre-existing fragilities in the global economy and potentially of pushing the latter into outright recession.

The situation in Ukraine is adding to geopolitical risk and raising the possibility of economic and military conflict between superpowers

Following approval by the Russian parliament, President Putin ordered Russian forces to move against Ukraine on 24 February, and since then, conflicts have erupted across the country, though border regions in the north and east have seen particularly intense fighting. At the same time, peace discussions between the two parties have made little progress.

The outbreak of open hostilities against Ukraine has prompted the US, the UK, the EU and countries elsewhere to impose wide-ranging sanctions on Russia. These have included blocking exports of hi-tech materials and equipment, banning access to finance and foreign exchange markets by Russian public and private enterprises, seizing property belonging to Russian oligarchs connected to the Kremlin, imposing controls on Russian financial activities, expelling Russian banks from the international SWIFT banking system, and cutting or banning imports of Russian energy.

Figure 1: Conflict between Russia and Ukraine



Source: Institute for the Study of War (March 2, 2022)

The initial impacts of the conflict have been to trigger a surge in commodity prices, which have now risen to highs not seen for many years. Thus, prices for Brent crude have touched USD 139/bbl, last seen in 2008, gold is back to a 2-year high of USD 2,070/oz t., and wheat hit historic highs of well over USD 1,200/bushel. This extremely rapid run up in prices is expected to add to the inflationary pressures that were already troubling the global economy, with negative economic impacts expected to materialize further down the line.

The outlook depends crucially on two factors, how protracted the conflict becomes and how extensive and prolonged the sanctions against Russia are, while there are four channels that will transmit impacts to the world economy: trade and transport, energy, prices, and income effect and capital markets.

At this stage, the situation remains highly uncertain, but **Krungsri Research believes that two factors will be particularly important in shaping the impacts of the conflict. These are the progress of the war itself and the extent of Western sanctions against Russia together with Russia's response to these.** With regard to the war in Ukraine, this analysis looks at three possibilities: an end to hostilities in 1Q22, an extension of hostilities until mid-2022, and the spread of hostilities to other countries. Sanctions and the economic conflict are likewise divided into three groups: a ban by Western powers on certain types of trade and financial transactions that lasts until the end of 2022; the imposition of stricter and more comprehensive sanctions by the West that extends to all non-energy exports from Russia; and a comprehensive ban on the import of non-energy Russian exports that prompts Russia to block exports of oil and gas to Europe. Taking into account these two sides of the analysis, we have identified a matrix of possible outcomes (Figure 2).

Figure 2: Possible scenarios of Russia-Ukraine conflict

	Current sanctions remain until the end of 2022	Tougher sanctions are maintained until the mid of 2023	Tougher sanctions remain until mid-23 with the energy trade between Russia and EU shut off
The war between Russia and Ukraine ends in 1Q22	**Highly likely with mild impacts** The war between the two countries ends in March, but sanctions remain through to end-2022, but without intensifying.	**Likely with mild impacts** The West intensifies sanctions, forcing Russia to withdraw its troops. Sanctions remain until end-2022.	**Less likely with severe impacts** Russia withdraws its troops from Ukraine but cuts off energy exports to Europe.
The war between Russia and Ukraine drags on to 2Q22	**Less likely with mild impacts** The war continues to 2Q22, but the West does not add to current sanctions	**Most likely with moderate impacts** Russia continues its attack on Ukraine, pushing the West to add to current sanctions.	**Highly likely with severe impacts** Russia continues with its invasion of Ukraine, pushing the West to extend sanctions. Russia retaliates by cutting off energy exports.
The war intensifies and is prolonged	**Less likely with moderate impacts** Other countries join the war between Russia and Ukraine. However, sanctions do not intensify and remain in place only until end-2022.	**Less likely with severe impacts** Both military and economic measures are used to reverse the Russian invasion.	**Likely with doomsday impacts** Both military and economic measures are used to stop Russia. Russia retaliates by cutting off its energy exports.

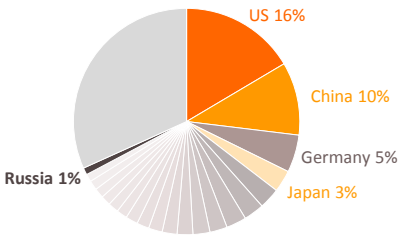
Source: Krungsri Research

Of the various outcomes identified, we see three as being most likely: (i) the conflict ceases in March, though sanctions remain in place until the close of 2022; (ii) fighting ends in 2Q22, with the West imposing tighter sanctions on Russia, and (iii) fighting drags on until mid-2022 and Western powers place stricter sanctions on Russia, which then prompts Russia to block exports of energy to Europe, thus triggering an energy crisis in the continent. The outcomes for the world economy of these three scenarios are all different, but all rely on four main transmission channels, that is, trade and transport, energy security, price stability, and income effect and capital markets.

- **Disruption to trade and logistics**

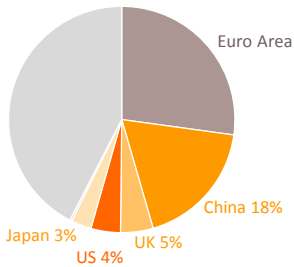
Sanctions on Russian trade and the country's expulsion from global payments systems will naturally hurt the Russian economy, but the direct impacts of this at the global level will be limited by the fact that Russia contributes just 1% of world trade, with this mostly being with the Eurozone (27%), China (18%), the UK (5%), and the US (4%). Analysis of the OECD Input-Output tables further reveals that every 1% drop in Russian trade translates into a loss of just 0.06% to world trade (Figure 7), though for Thailand, this increases to a loss of 0.08%. Nevertheless, although overall direct impacts are limited, in some industries, the consequences are likely to be more severe, including especially those that are reliant on trade in commodities since Russia is a major exporter of many of these, including crude oil, natural gas, iron and palladium. Trade in technology will also be impacted by sanctions.

Figure 3: Global trade, by country



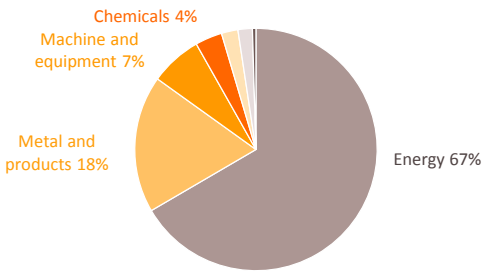
Source: International Monetary Fund

Figure 4: Trade exposure to Russia, by country



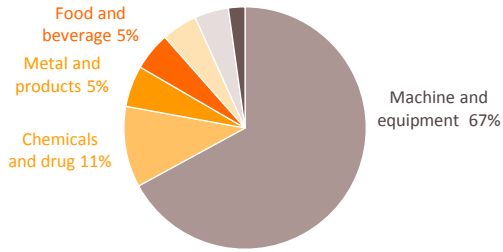
Source: International Monetary Fund

Figure 5: Russia export value, by product



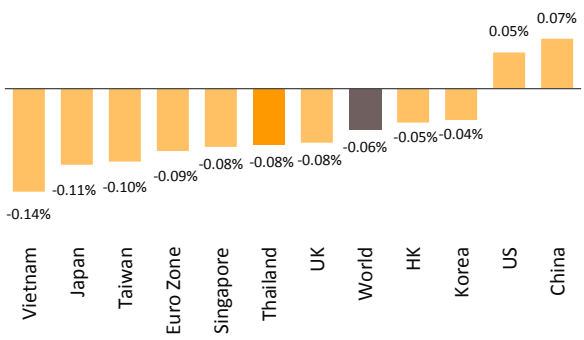
Source: Federal Customs Service, Russia

Figure 6: Russia import value, by products



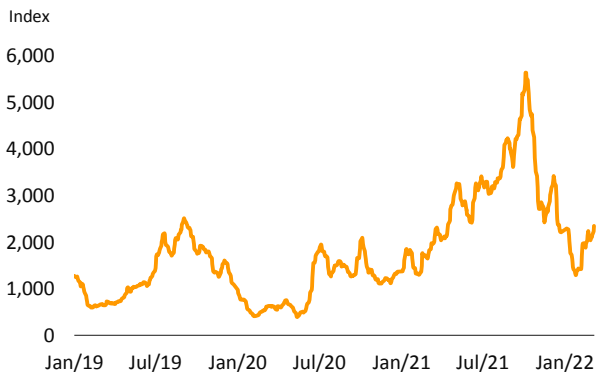
Source: Federal Customs Service, Russia

Figure 7: Impact on exports of -1% Russian trade shock (%)



Source: OECD, calculate by Krungsri Research

Figure 8: Baltic Exchange Dry Index



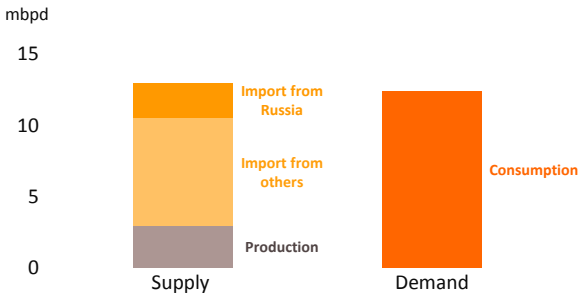
Source: International Energy Agency (IEA)

Shipping costs are influenced most importantly by the cost of oil and the level of perceived risk, and a shift in these is now affecting markets. Because of this, the Baltic Dry Index (BDI), which measures shipping costs on major global routes, almost doubled from 1,296 points in January to 2,352 at the start of March, and such sharp rises in the cost of maritime shipping may be expected to squeeze global trade in the near future (Figure 8).

- **Energy security**

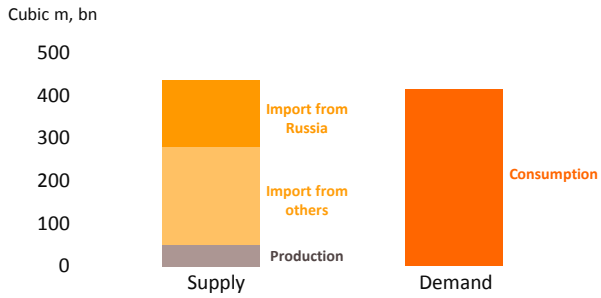
The conflict in the Ukraine has severely undermined global energy security, though Europe is particularly exposed to risk from this. This is because Russia is a major supplier to global energy markets, the country accounting for 16.6% of natural gas and 12.1% of crude produced globally, but its most important customers are in Europe, and figures from the European Union and OPEC show that the EU imports around 155 billion cubic meters of gas annually from Russia (37.5% of all gas consumed by the bloc), while oil imports run to 2.44 mbpd (19.6% of all EU supply). Given this, any interruption to energy supplies from Russia to Europe, whether this was due to EU sanctions or a Russian decision to turn off the spigots, would send energy prices soaring and trigger unavoidably severe effects for global manufacturing.

Figure 9: European market for crude



Source: OPEC

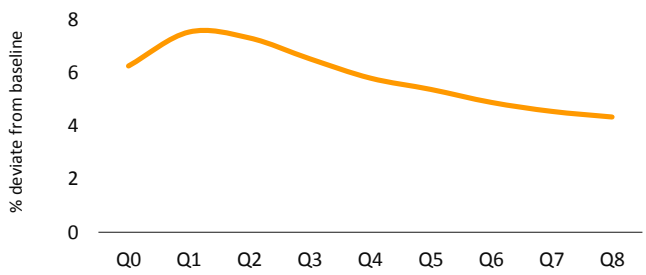
Figure 10: European market for natural gas



Source: European Union

In this analysis, an econometric model[1/] has been used to assess the impacts of removing Russian oil from global markets, and this shows that **a cut in supply of 1 mbpd (approximately equal to a 1% reduction in total supply) would lift prices by 7.5% over 1H22**. However, higher prices could be expected to cause a certain amount of demand destruction, while producers would be incentivized to step up production and so over the long term, price rises would likely be restricted to around a 4% hike (Figure 11).

Figure 11: Impact on oil Price of -1% oil supply shock



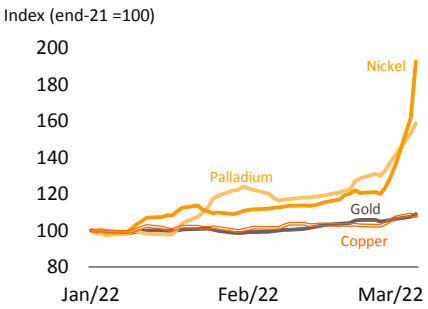
Source: Krungsri Research

- **Prices and inflation**

In addition to its impact on energy prices, the war in Ukraine is affecting prices for a much larger basket of commodities. For example, since the end of 2021, on the metals side, prices for nickel and palladium have jumped by respectively 92% and 59%, while for agricultural products, wheat prices are up 74%. **Such sharp price rises will feed into higher inflation across most countries, though this will be most pronounced for countries where food and energy account for a large share of consumption**; in the case of Thailand, spending on these represents 52% of the weighting of goods in inflation calculations (40.35% for food and 12.39% for energy (Figure15)). This matters because rising inflation will erode consumer spending power and weigh on recovery in the coming period. In addition, this will add to the difficulties involved in implementing monetary policy, which will be especially important now that economies are beginning to recover from the Covid-19 crisis.

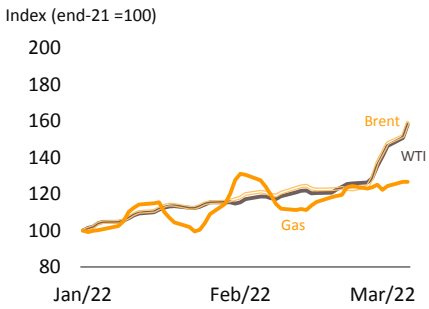
1/ Structural Vector Autoregressive Models (SVAR)

Figure 12: Metal



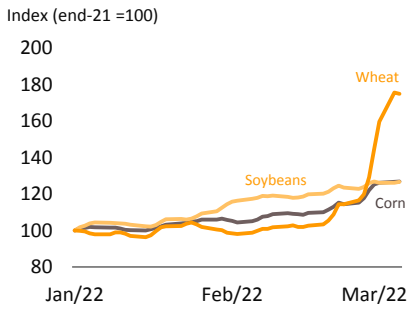
Source: Bloomberg

Figure 13: Energy



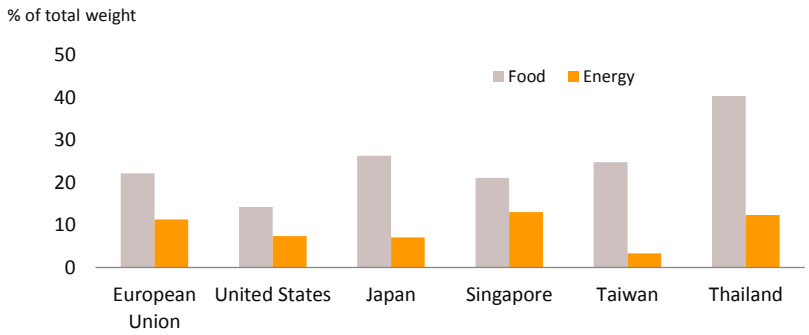
Source: Bloomberg

Figure 14: Agriculture



Source: Bloomberg

Figure 15: CPI Food and energy weightings

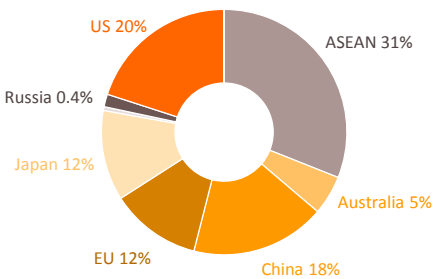


Source: Krungsri Research

- **Income effect and capital markets**

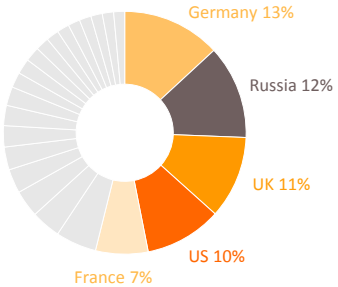
The trade-related consequences of the Ukraine war may be limited for Thailand, but indirect effects transmitted through price rises and turbulence in capital markets will be impossible to sidestep, while for Thailand's European markets, impacts mediated through trade and tourism channels may be significant. Thailand's exports to Russia account for just 0.4% of the total, whereas the EU and the UK markets soaked up a full 10.4% of all Thailand's exports. Likewise, in the tourism market, in the past 12 months, 554,078 overseas tourists arrived in Thailand, of which 52% came from Europe (9.8% were from Russia). On the other hand, arrivals from East Asia and the ASEAN region, which had been the mainstay of the tourism sector, contributed just 12% of the total due to ongoing restrictions on travel in some of these countries. It is therefore clear that if the economic consequences for of the war escalate and drag harder on Europe, this will likely weigh on Thailand's export and tourism sectors (figures 16 and 17).

Figure 16: Thai exports, by country



Source: Bank of Thailand

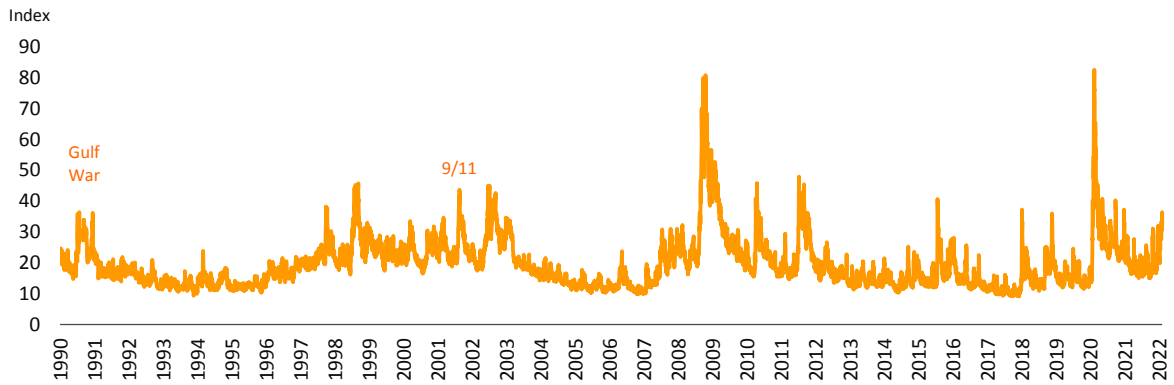
Figure 17: Thai visitor arrivals, by nationality
(during previous 12 months)



Source: Ministry of Tourism and Sports

Turbulence is increasing in capital markets, and this is reflected in the rapid rise in the CBOE Volatility Index (an indicator that measures the stock market's expectations of volatility), which has climbed from around 15 points at the start of February to a peak of 37 in early March, a level that's close to that seen during the Gulf War in 1990. These high levels of volatility may cause investors to become excessively twitchy, thus potentially triggering a selloff in assets that would then naturally affect individuals' wealth and income, while also driving up the cost of financing debt.

Figure 18: CBOE Volatility Index (VIX)



Source: Bloomberg

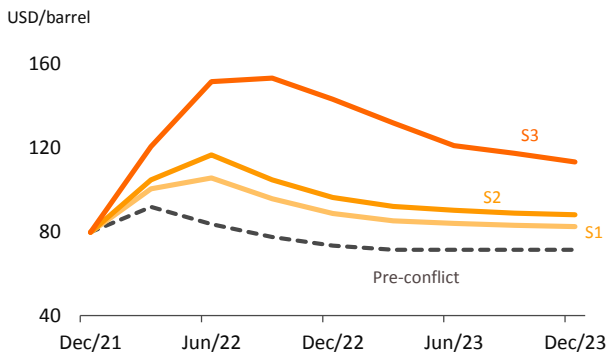
Impacts on the Thai and the global economies

Scenario 1 **Fighting stops in March, but sanctions are maintained until the end of 2022**

In this scenario, open conflict ceases in March 2022. Following this, Russia withdraws its forces from Ukraine, while retaining control over the Donbass region, and in response, the Western powers leave sanctions in place until the end of 2022. Although these do not interrupt Russia's energy exports to Europe, oil prices would still spike during 1Q22 before gradually falling back, and for the year, Brent crude would average USD 97.5/bbl.

In this situation, rising commodity prices undercut manufacturing, feed higher inflation worldwide, and drag on a still-fragile global recovery. This would increase the risk of the world economy slipping into stagflation[2/], though Europe would be particularly at risk of this. Sanctions would also prove to be especially damaging to Russian trade and tourism.

Figure 19: Forecast Brent oil price



Source: Bloomberg, forecast by Krungsri Research

Using the Dynamic Stochastic General Equilibrium (DSGE) model reveals that in this case, rising commodity prices add 1.3% to global inflation, with consequent effects for spending power and consumption. **This would then cut global growth by 0.5% relative to the baseline case**, though the impacts are worse in the Eurozone, where 0.7% is lost from GDP and 2.0% added to inflation.

For Thailand, the 1.1% drop in global trade in scenario 1 would lead to a 1.1% drop in export volumes from the baseline scenario. Inflation would also be 1.4% higher and economic growth 0.4% lower from the baseline.

2/ Stagflation describes the situation when economic stagnation (i.e., a lack of growth) occurs alongside high inflation.

Scenario 2 **Fighting continues into 2Q22, and the Western powers impose tighter sanctions on Russia**

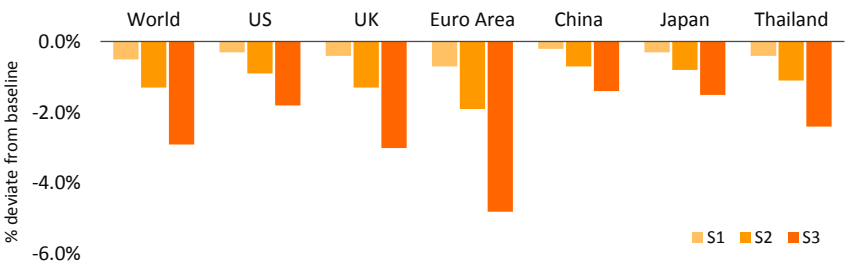
Under the second scenario, fighting continues into mid-2022, provoking an intensification of the sanctions placed on Russia. This might include more widespread seizures of property belonging to Russian individuals, a reduction in exports to and imports from Russia, a further tightening of access to the SWIFT payments system, and a cut in imports of energy from Russia. In response, Russia also cuts its imports from Europe, but energy exports are not affected by these moves and so there is no widespread energy crisis in Europe. Nevertheless, oil prices surge higher than they do in scenario 1, and for all of 2022, under scenario 2, Brent prices would average USD 105.5/bbl.

Under the assumptions entailed by scenario 2, global inflation rises higher, increasing the probability of a global recession. This would be a particular risk if rising energy costs are transmitted through to core inflation, which would then keep inflation elevated into 2023. At the same time, **demand would come under pressure from falling incomes and trade disruption, again, with this being at higher risk if economic woes in Eastern Europe spread across the entire continent. Beyond this, the risk of stagflation setting in would be heightened by any delay in tightening policy.**

Stiffer sanctions on Russia would undercut global trade through trade disruption and income effect. This would then cut 3.4% from world trade and add 2.0% to inflation, **shaving 1.3% from global growth**. The Eurozone would again be more seriously affected, with GDP growth losing 1.9% and inflation adding 2.7% relative to the baseline case.

For Thailand, scenario 2 would entail facing an additional 3.0% fall in export volume, a 2.3% rise in inflation, and a loss to GDP growth of 1.1%.

Figure 20: Impacts on economic growth in selected countries



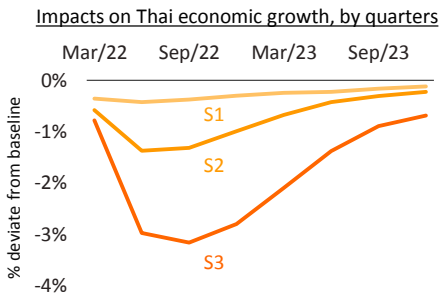
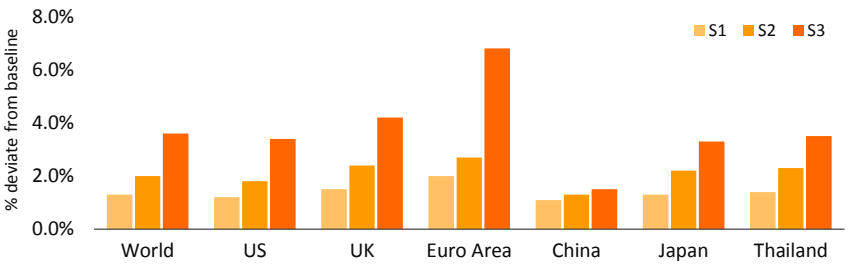


Figure 21: Impacts on inflation in selected countries



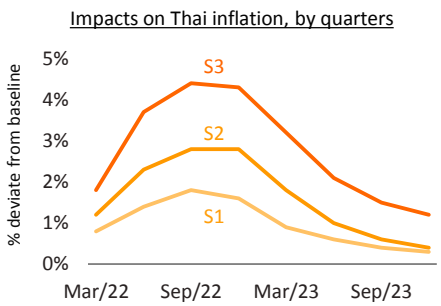
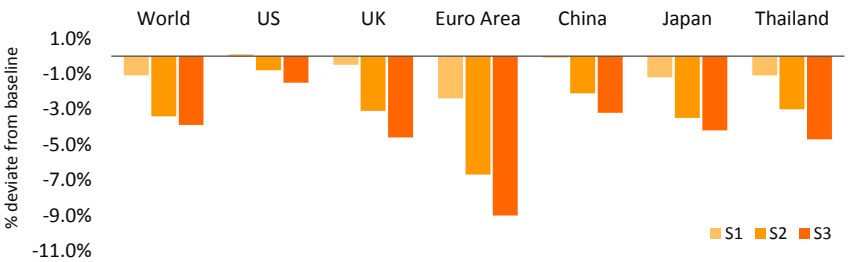


Figure 22: Impacts on export volume in selected countries



S1 = Fighting ends in March and sanctions continue until the end of 2022
S2 = Fighting continues into 2Q22, provoking a tightening of sanctions against Russia
S3 = Fighting continues into mid-2022, leading to stiffer sanctions against Russia that in turn causes Russia to block exports of energy to Europe, triggering an energy crisis across the continent

Source: estimate by Krungsri Research

Figure 23: Sectoral impacts arising from Russia-Ukraine conflict



Source: GTAP, estimate by Krungsri Research

Scenario 3 **Fighting continues into mid-2022, provoking a tightening of sanctions and causes energy disruption**

Under scenario 3, open conflict between Russia and Ukraine is expected to drag on much as in scenario 2, which again provokes Western countries to tighten their sanctions on Russia. However, in the third scenario, Russia responds to this by halting the export of energy supplies to Europe, thus taking around 2.5-3.0 mbpd out of supply. This would then precipitate pronounced energy shortages across Europe that would push global prices to USD 150/bbl during 1H22, and although these would soften, Brent prices would still average USD 140/bbl across the year. Such high oil prices would inevitably have significant consequences for global manufacturing, and this would dramatically increase the odds of the world slipping into recession.

European-wide energy shortages would weigh heavily on the continent's economy, and the effect of the chain of events imagined in scenario 3 would be to slash 4.8% from Eurozone growth relative to the baseline. This would also add 6.8% to inflation, and stagflationary conditions would then be spread to other countries through capital markets and trade channels, **cutting 3.9% from international trade, adding 3.6% to global inflation, and shrinking the world economy by 2.9% relative to prior predictions.** The outlook for major economies varies somewhat, but in the case of scenario 3, the US, the UK, China and Japan would be expected to see their respective GDP growth fall by 1.8%, 3.0%, 1.4% and 1.5% against baseline conditions.

For Thailand, scenario 3 would lead to an estimated 3.9% fall in export volumes, a 3.1% rise in inflation, and a cut to GDP growth of 1.7%, all relative to the baseline assumptions.

Impacts on Thai industry

In addition to analyzing the impacts of the war on the economy overall, Krungsri Research has also conducted a sectoral analysis of the consequences of the conflict, again using a dynamic stochastic general equilibrium model to do so. The results of the analysis indicate that **Thai industrial sectors that are likely to see a high level of impacts will include construction, transport, oil refining, maritime shipping, and real estate, all of which will have to contend with higher prices**, especially from metals and the energy prices. However, higher prices and trade diversion will mean that some industries will likely benefit from stronger output. This group is expected to include producers of oil and natural gas, sugar processors, and manufacturers of clothing, electronics and leatherware (Figure 23).

At present, the situation in Ukraine is extremely fluid and the outcome of the war remains highly uncertain. The conflict between Russia and Ukraine may indeed come to an end in the near future, but it will still take time for the economic consequences of the outbreak of hostilities to work through the system and to become fully manifest, and so at this point, the downside risks to the economy have to be regarded as significant. In light of this, it is imperative that an accurate assessment of near-term risks is made, and in our view, it remains highly possible that the negative impacts of the war will be transmitted through to the Thai economy by means of two main channels, these being rising inflationary pressures and the effect of the war on energy supplies. As things stand, the impacts of the war on exports are likely to be limited, but if the situation deteriorates further, income effects may begin to have a negative influence on both Thailand's export sector, which had been hoped to be a motor of the economy this year, and the country's tourism sector, on which hopes of long-term recovery have been placed.

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