

Global Corporate & Investment Banking Capital Markets Strategy Team



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Contents







1.

Country Level Sanctions

2.

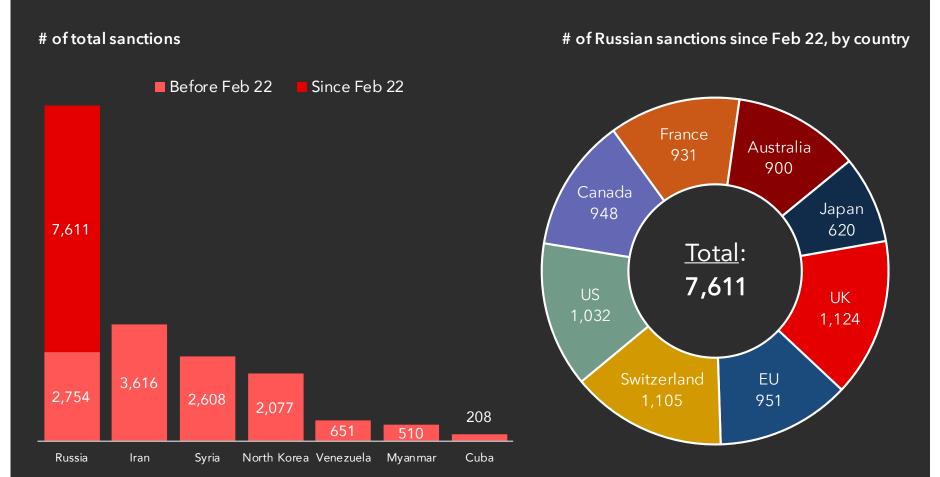
Market Infrastructure Restrictions 3.

Private Company "Self-Sanctioning"



The World's Most Sanctioned Country

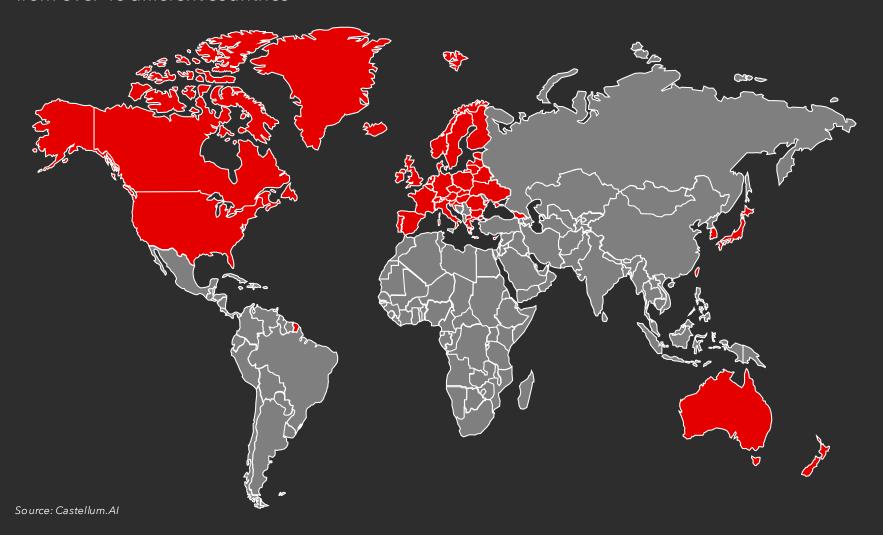
In response to the Ukrainian invasion, Russia has become the world's most sanctioned country



Source: (1-2) Castellum.Al. Data as of May 12, 2022.

Countries Sanctioning Russia

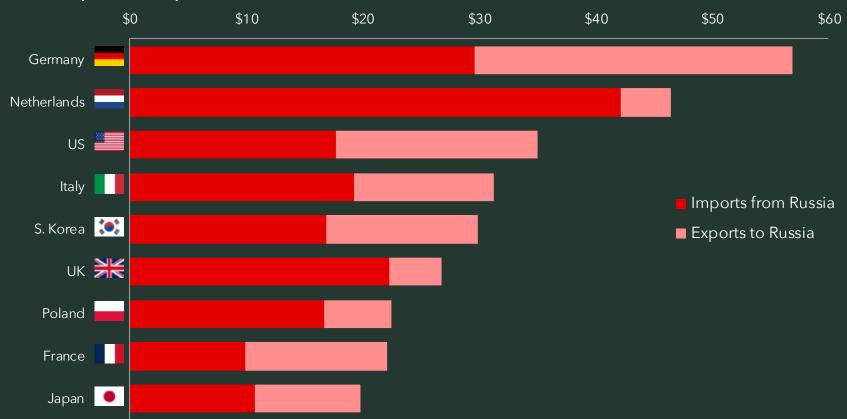
Russia faces deepening isolation and economic repercussions as it continues to be hit with sanctions from over 45 different countries



Russia's WTO Membership & MFN Status

By mid-March, a quarter of the WTO's 164 members (representing 58% of global GDP) had taken steps to revoke Russia's most-favored-nation (MFN) status. The list includes the US, EU, Japan, UK, Canada, South Korea and Australia and will clear the way for more bans on Russian imports and higher tariffs on Russian goods.

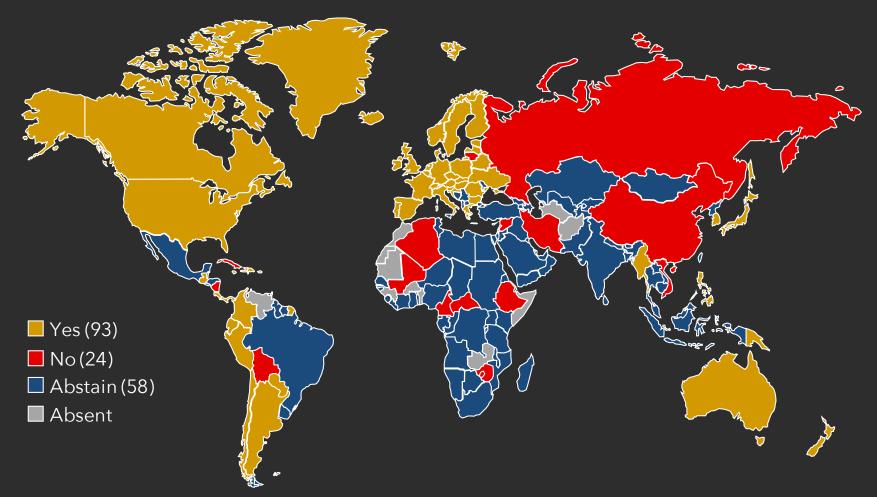
Russian imports and exports, USD bn



Source: (1) Bloomberg, "How Russia's Lost Trade Rights Leads to Import Bans on Diamonds, Platinum, Vodka" (March 15, 2022). I nternational Trade Center Self & Progressive Sanctioning / MAY 2022 / page 7

Russia Suspended from the Human Rights Council

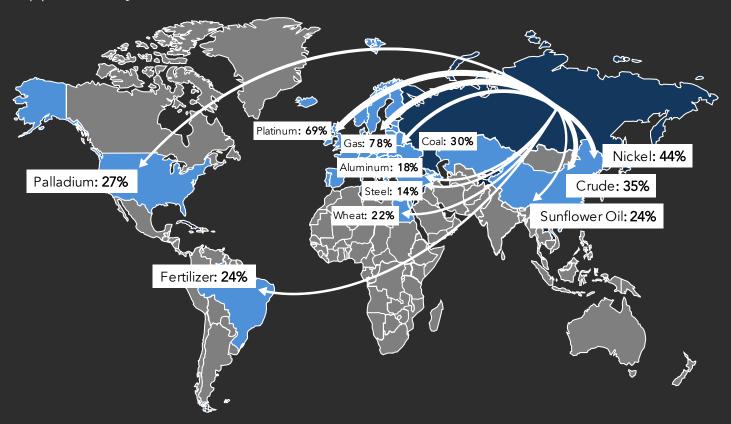
The United Nations General Assembly voted to suspend Russia from the Human Rights Council



Source: UN General Assembly, data compiled by Bloomberg

Russia's Global Commodities Reach

Russia is the world's largest pipeline natural gas exporter, second largest crude oil exporter, and largest fertilizer exporter (representing nearly one fifth of global exports, alone). When combined with Ukraine, Russian exports are also critical to global wheat and sunflower oil exports. With Russia largely cut off from the global financial system, many countries globally will struggle to replace supplies of key commodities.



Source: Bloomberg. UN Comtrade Database (metals); International Energy Agency (coal); UN's Food and Agriculture Organization (wheat; sunflower oil); Joint Organizations Data Initiative; Bloomberg; Eurostat; BP; (crude); Trade Data Monitor; Green Markets, a Bloomberg company (fertilizer); BP (gas)

Major Sectoral Sanctions & Export Control Restrictions

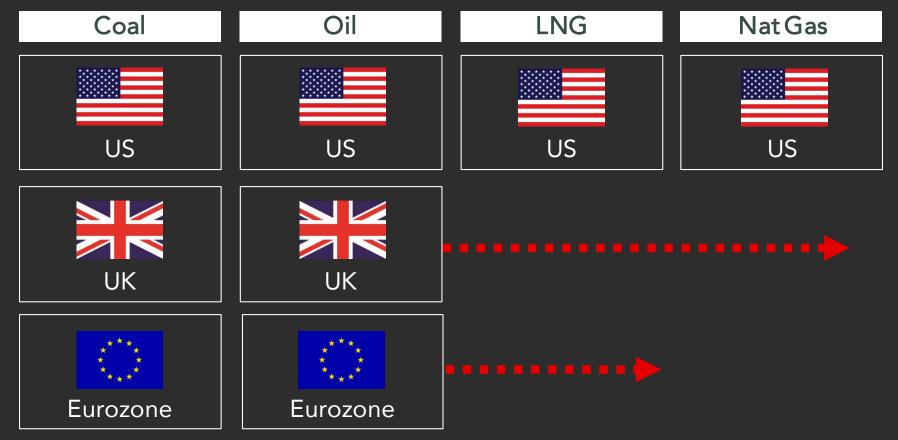
		****				*	**:
	US	EU	UK	: : Switzerland :	Japan	: : Canada	: : Australia
Restrictions on Russian oil imports	\checkmark	\bigcirc	\bigcirc		lacksquare	9	\bigcirc
Restrictions on Russian gas imports	Ø						₹
Restrictions on Russian coal imports	\checkmark	₹	✓		✓		
Restrictions on Russian metals imports		Ø		V			
Restrictions on export of metals to Russia						:	S
Restrictions on export of luxury goods to Russia	\checkmark	⊘	⊘	\bigcirc	✓	Ø	⊘
Restrictions on import of luxury goods from Russia	⋖		⋖				
Restrictions on export of technology to Russia	©	S	⋖	lacksquare	⊘		
Restrictions on Russia access to IMF & World Bank funds	⊘	©	©		•	⊘	
Revocation of Most Favored Nation status	⊘		⊘				S
Restrictions on sovereign debt	<	✓	<	<	✓	€	<
Restriction on Russian banks' correspondent banking accounts	Ø		Ø				
Restrictions on Russian banks' access to SWIFT	Ø	②	•	•	②	Ø	

Source: Castellum.Al. Data as of May 12, 2022.

Progressive Energy Sector Sanctions

The European Union has released a proposal for its 6th round of sanctions against Russia which includes a ban on oil imports starting in November and refined petroleum by year end, with exemptions for Hungary and Slovakia. Notably, EU sanctions policy requires unanimous approval from all 27 EU members.

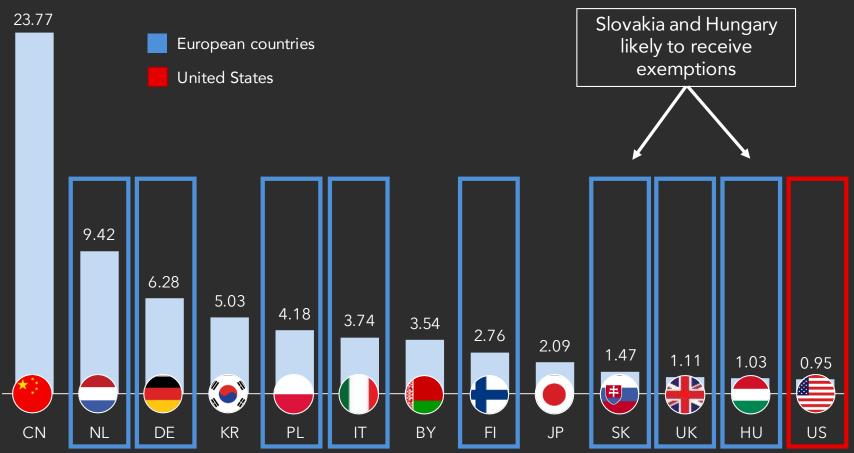
Restrictions on Russian energy sector as of May 2022



Sanctioning Russian Oil

A ban on all Russian oil exports by the US, UK and Europe would impact nearly 50% of total Russian oil exports. Preemptive self regulation has already begun to adversely impact Russian exports as shipping companies become concerned with safety of the Black Sea, reputation risk, letters of credit and insurance challenges.

Russia's Most Important Oil Export Partners, % of total



Source: UN Comtrade

Self & Progressive Sanctioning / MAY 2022 / page 12



Restrictions on Russian Energy & Commodities:

- Executive order banning US imports of Russian oil, LNG and coal
- Prohibitions on investments or financing Russia's energy sector
- Sanctions on Nord Stream 2 and the company's leadership
- Gold-related transactions involving sanctioned entities prohibited

Restrictions on Exports to Russia:

 Export controls on critical technologies (semiconductors, lasers, sensors, etc.), military dual-use goods, oil equipment, and luxury goods

Central Bank Restrictions:

 Restrictions to prevent the Russian Central Bank from accessing foreign currencies (done in conjunction with EU, UK and Canada)

Restrictions on Individuals:

 Direct sanctions on President Putin and his daughters, members of the Russian government including Sergei Lavrov and his family, members of the Russian State Duma, Russian military entities and an expanded list of Russian elites and family members



Financial Sector Restrictions:

- Removal of selected Russian banks from SWIFT system
- Full blocking sanctions on selected Russian financial institutions which freezes assets in US, prohibits transactions with US individuals and businesses, restricts access to the global financial system and US Dollar
- Prohibition on new investment in Russia by US persons and entities
- Prohibition on the payment of Russian sovereign debt payments with funds subject to US jurisdiction

- The Treasury has cut off Russia's ability to make debt payments using dollars held at US banks
- Restrictions on US individuals and firms from purchasing debt issued by Russia's MoF, central bank (CBR), National Wealth Fund, Russian SOEs, banks, and private corporations (including gas, oil and power companies)
- Ban on providing accounting, trust and corporate formation, and management consulting services to any person in Russia

Additional Regional Sanctions:

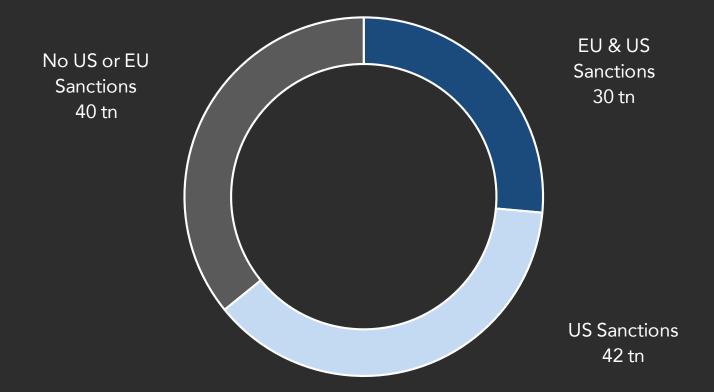
- Broad jurisdiction-based sanctions in the Donetsk and Luhansk regions
- Prohibitions on new investments, imports, exports and financing transactions (similar to sanctions put on the Crimea region after annexation in 2014)
- Blocking sanctions on Belarusian financial institutions and defense entities, as well as a number of individuals

- Stripping Russia of MFN trading status
- Suspending Russia from WTO under consideration
- UN voted to suspend Russia from its Human Rights Council
- All Russian-owned aircrafts, both cargo and passenger, banned from US airspace

US Sanctions on Russian Banking System

The US has sanctioned more than half of Russia's banking assets, including Russia's two largest financial institutions, VTB and Sberbank

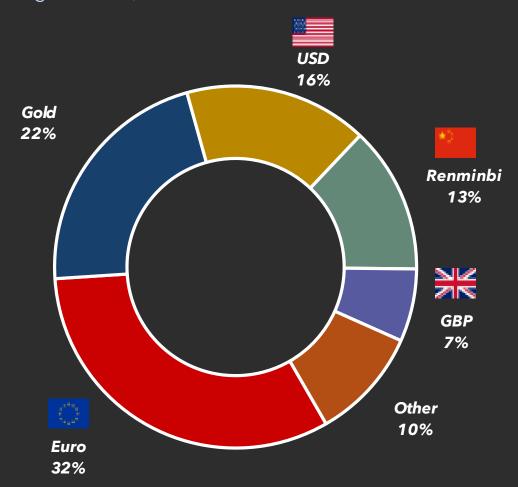
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Source: Bloomberg Government, "Russia's Fearful Elite Worries About a Way Out" (April 20, 2022). PIIE. Banki.ru. Central Bank of Russia

Breakdown of Russia's \$643 Billion FX Reserves

Central Bank of Russia foreign exchange and gold assets, % market value



Over 65% of Russia's FX Reserves are Sanctioned

Source: (1) Central Bank of Russia "FT, A Global Financial Pariah - How Could Central Bank Sanctions Hobble Russia" (February 27, 2021).



EU

Restrictions on Russian Energy & Commodities:

- Halted certification of the Nord Stream 2 Pipeline
- Restrictions on Russian coal, chemical, wood and other solid fossil fuel imports
- Prohibition on the import of iron and steel goods
- Ban on investment in the Russian energy sector

Restrictions on Exports to Russia:

- Export controls on dual-use and high-tech goods (electronics, computers, telecom, IT, sensors, lasers, marine appliances), aircrafts and related parts / equipment as well as the technology needed to update Russian oil refineries and goods that contribute to the enhancement of Russian industrial capacities (mainly certain chemicals and substances)
- Ban on exports of EU luxury goods
- Restrictions on new imports of goods and technologies that generate significant revenue to the Russian economy

Central Bank Restrictions:

 Imposed restrictive measures to prevent the Russian Central Bank from accessing reserves in foreign currencies (done in conjunction with US, UK and Canada)



EU

Financial Sector Restrictions:

- Removal of selected Russian banks from SWIFT system
- Sanctions on Russian financial institutions (including VEB, PSB and VTB)
- Measures to limit access on EU's financial markets for the Russian state and government
- Limits on bank deposits and restrictions on Russians investing in EU securities
- Prohibits the provisions of credit rating services, as well as access to any subscription services in relation to credit rating activities to any Russian nationals
- Prohibition on selling banknotes or transferable securities denominated in any official currency of an EU member state to any Russian national or entity established in Russia
- Ban on providing accounting, trust and corporate formation, and management consulting services to any person in Russia

Restrictions on Individuals:

 Financial sanctions on high profile Russians and entities including members of the Russian Federal Council, the Russian State Duma, military, Russian elites and family members

Additional Regional Sanctions:

- Ban on trade between the EU and Donetsk and Luhansk regions
- Designations of Belarusian individuals and entities
- Prohibitions on transactions with the Central Bank of Belarus, significant limits on the financial inflows from Belarus to the EU and prohibition on provision of Euro denominated banknotes to Belarus

- Stripping Russia of MFN trading status
- UN voted to suspend Russia from its Human Rights Council
- Russian aircrafts banned from EU airspace



Restrictions on Russian Energy & Commodities:

 Will phase out imports of Russian oil and oil products by the end of 2022

Restrictions on Exports to Russia:

 Ban on exports of any goods that could have military use (electrical components, truck parts), luxury goods. certain technology exports and aviation and spacerelated goods and technology including technical assistance and payments related to these goods

Central Bank Restrictions:

 Imposed restrictive measures to prevent the Russian Central Bank from accessing reserves in foreign currencies (done in conjunction with US, EU and Canada)



Financial Sector Restrictions:

- Removal of selected Russian banks from SWIFT system
- Sanctions on all major Russian banks: freezes assets in UK, prohibits transactions with UK individuals and businesses, ban on travel to the UK, blocking banks from sterling markets
- Accelerated passage of economic crime bill to target illicit Russian money in the UK
- Prohibit Russian sovereign debt in the UK market
- Prohibit all major Russian companies from raising funds in UK markets
- Ban on providing accounting, trust and corporate formation, and management consulting services to any person in Russia

Restrictions on Individuals:

- Sanctions on selected Russian elites, members of the Russian State Duma and Federal council
- Limits on deposits by Russian nationals in UK bank accounts

Additional Regional Sanctions:

- Extend existing territorial sanctions imposed on Crimea
- All sanctions extended to Belarus
- Individual sanctions on selected Belarusian elites

- Stripping Russia of MFN trading status
- Ban on Aeroflot planes landing in the UK
- Ban on Russian ships in British ports
- UN voted to suspend Russia from its Human Rights Council



Japan

Restrictions on Exports to Russia:

- Export controls targeting Russia's military sector, equipment for refining oil, semiconductors and military dual-use goods to Russia and Belarus
- Ban on the import of Russian-origin coal, machinery, wood, vodka and other luxury goods

Central Bank Restrictions:

 Asset freeze targeting the Central Bank of Russia

Financial Sector Restrictions:

- Removal of selected Russian banks from SWIFT system
- Ban on issuance and circulation of new sovereign bonds by the Russian government in Japan
- Sanctions on Russian financial institutions, including asset freezes
- Ban on new Japanese investment in Russia

Restrictions on Individuals:

 Sanctions on certain Russian individuals, entities, military and government officials including President Putin and Sergei Lavrov

Additional Regional Sanctions:

- Freezing assets, suspension of visas, sovereign bond restrictions and trade prohibitions with parties in Donetsk and Luhansk regions
- Sanctions on certain Belarusian officials, banks and individuals including President Lukashenko

- Stripping Russia of MFN trading status
- UN voted to suspend Russia from its Human Rights Council
- Stripping Russia of MFN trading status



Canada

Restrictions on Russian Energy & Commodities:

 Imports of Russian oil banned

Restrictions on Exports to Russia:

Restrictions on export of technology to Russia

Central Bank Restrictions:

 Imposed restrictive measures to prevent the Russian Central Bank from accessing reserves in foreign currencies (done in conjunction with US, EU and UK)

Financial Sector Restrictions:

- Removal of selected Russian banks from SWIFT system
- Prohibition on Canadians buying Russian sovereign debt
- Additional sanctions to be applied to two state-backed Russian banks

Restrictions on Individuals:

 Sanctions on select Russian elites and members of the Russian parliament including Russian billionaire Abramovich

Additional Regional Sanctions:

 Prohibition on conducting business in Donetsk and Luhansk

- Stripping Russia of MFN trading status
- UN voted to suspend Russia from its Human Rights Council
- Ban on Russian ships in Canadian ports
- Ban on Russian aircrafts in Canadian airspace



Restrictions on Russian Energy & Commodities:

 Restrictions on Russian oil & gas imports

Restrictions on Exports to Russia:

 Restrictions on export of metals and luxury goods to Russia

Financial Sector Restrictions:

- Financial sanctions prohibiting Australian individuals and entities from doing business with five Russian banks (Rossiya Bank, Promsvyazbank, IS Bank, Genbank, and the Black Sea Bank for Development and Reconstruction)
- Restrictions on Australians investing in the state development bank VEB
- Restrictions on sovereign debt

Restrictions on Individuals:

 Travel bans and targeted financial sanctions on members of Russia's Security Council, select Russian entities and elites

Additional Regional Sanctions:

 Extending existing sanctions on Crimea and Sevastopol to include Donetsk and Luhansk prohibiting trade in the transport, energy, telecommunications, and oil, gas and minerals sectors

- Stripping Russia of MFN trading status
- Extending visas for Ukrainian nationals in Australia & fasttracking pending visa applications from Ukrainian nationals
- UN voted to suspend Russia from its Human Rights Council

Potential Sanctions Escalation



Restrictions on Exports to Russia:

- EU banning the import of oil and gas (proposed ban on oil and oil products currently under consideration)
- Blocking sanctions against state-owned industrial giants like Gazprom, Rosneft, or Sovcomflot

Restrictions on Exports to Russia:

• Additional restrictions on critical exports

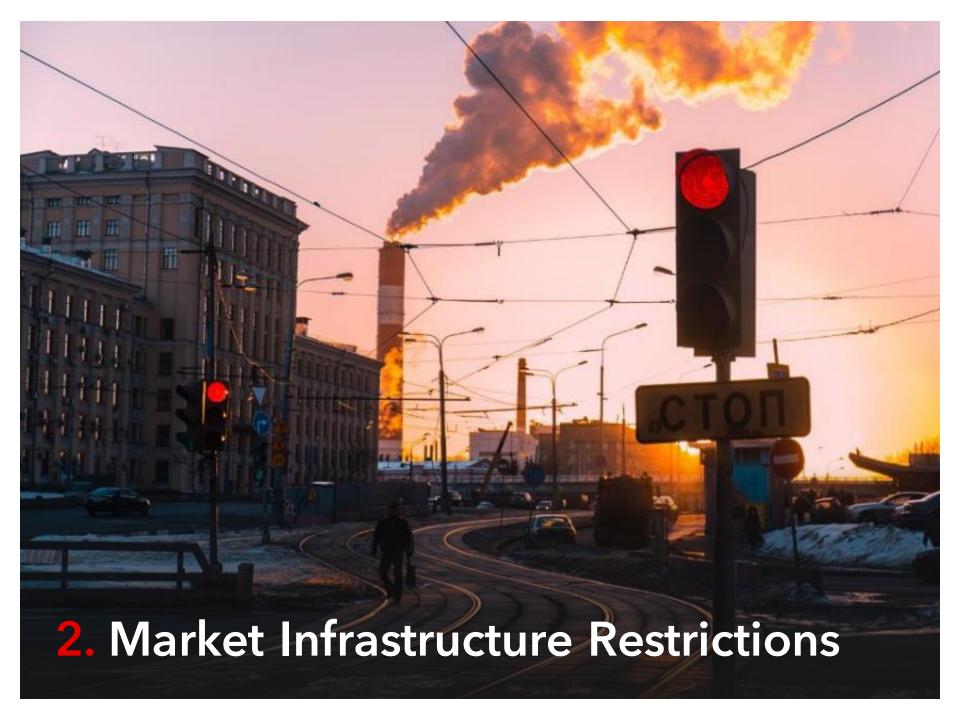
Financial:

- Extending blocking sanctions and SWIFT bans to all major Russian banks
- New restrictions on investments in Russia

Restrictions on Individuals:

• Sanctions on additional Russian officials and elites

- Efforts to revoke Russian membership in multilateral organizations (i.e., the WTO, and the G20)
- Secondary sanctions against third parties that do business with Russia in sanctioned areas



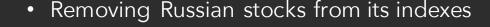
Stock and Bond Indexes

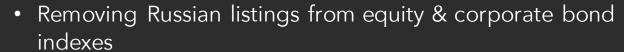
Banks, stock exchanges, clearinghouses and investment funds have made rapid structural changes to remove Russian assets from the world's financial system architecture

S&P Dow Jones Indices

A Division of S&P Global









Removing Russian equities from benchmark indexes



 Suspended share creation for VanEck Russia ETF (Van Eck is largest ETF investor in Russia)

J.P.Morgan • Removing Russia from all fixed income indexes (including EM, Government, and Corporate indexes)

Bloomberg

Removing Russian debt from its fixed income indexes



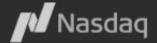
Removing Russian companies from its indexes

Clearing Houses & Exchanges

Clearing Houses & Exchanges:



• Removing Russian and Belarusian fixed income indexes



Removing all Russian-listed equities, ADRs and GDRs from its indexes



 No longer allowing investors to clear trades in rubledenominated securities

DEUTSCHE BÖRSE

• Clearstream no longer settling domestic trades in Russia, accepting Rubles as settlement currency or settling trades for Russian-linked stocks and bonds



Suspends trading of firms with strong links to Russia



• Suspended trading of Russian government bonds

Investment Funds & Rating Agencies

Rating Agencies:

FitchRatings |

Russian sovereign debt downgraded to junk

Moody's

Russian sovereign debt downgraded to junk

S&P Global

 Downgraded Russian sovereign debt further into junk rating and withdrawing its credit grade on Russian entities

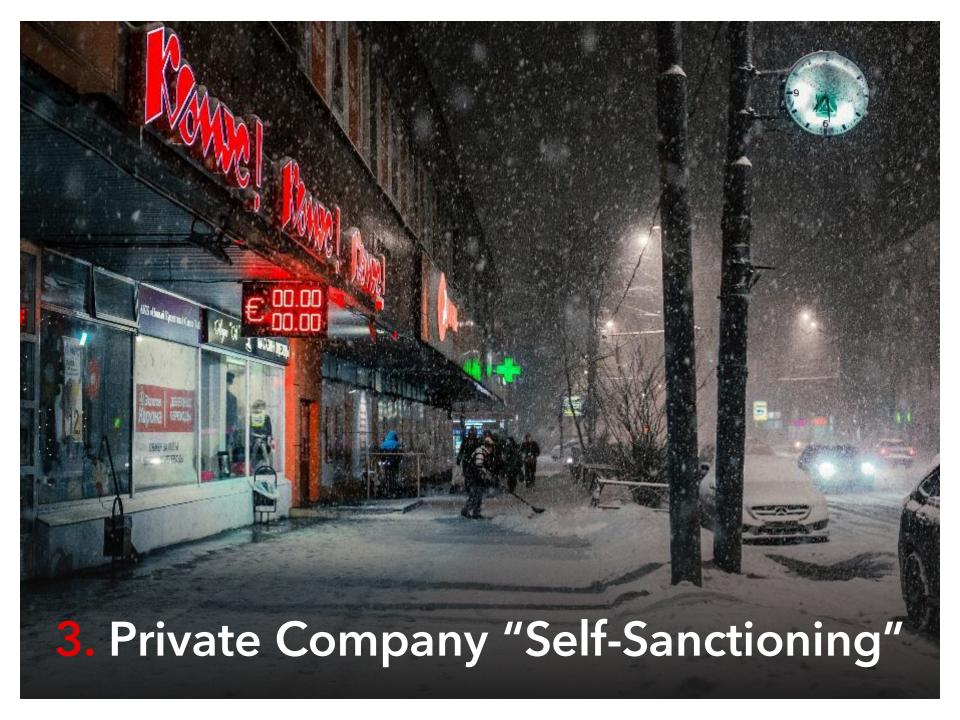


 Ban on the rating of Russia and Russian companies by EU credit rating agencies and the provision of rating services to Russian clients



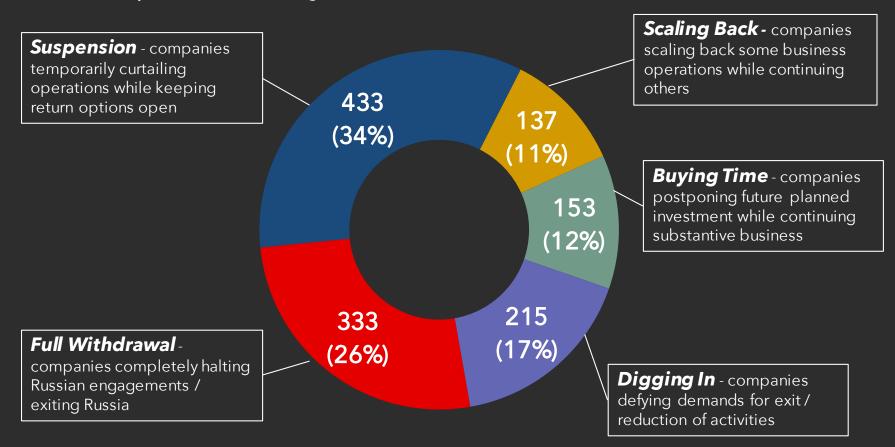
Downgraded Russian sovereign debt to junk

Japan Credit Rating Agency, Ltd.



Yale University has created a comprehensive tracker of corporate responses to Russia's invasion of Ukraine. Of the more than 1,200 companies globally included in their tracking analysis, over 70% have either fully withdrawn, suspended or scaled back their Russia business.

Number of companies "self-sanctioning" Russia



Source: (1) Yale School of Management. Data as of May 12, 2022. Self & Progressive Sanctioning / MAY 2022 / page 30



According to data maintained on an ongoing basis by the Yale School of Management, of the more than 1,200 companies tracked globally, nearly 175 S&P 500 companies have either fully withdrawn, suspended operations, scaled back or delayed future investment in Russia

3M	AmerisourceBergen	Booking Holdings	Costco
Abbott Laboratories	AMETEK	Boston Scientific	Cummins
AbbVie	Analog Devices	Brown-Forman	Danaher
Accenture	ANSYS Inc	Carnival Corp	Deere & Co
Activision Blizzard	A on PLC	Caterpillar	Delta Air Lines
Adobe	Apple	CBRE	Discover Financial
ADP	Archer-Daniels-Midland	Chevron	Services
Air Products and	Autodesk	Cisco Systems	Dover Corp
Chemicals	Avery Dennison	Citigroup	DuPont de Nemours
Akamai Technologies	Baker Hughes	Citrix Systems	DXC Technology
Alaska Air Group	Ball	Clorox	Eaton Corp
Alphabet	BlackRock	CME Group	еВау
Amazon	BNY Mellon	Coca-Cola	Ecolab
American Airlines	Boeing	Colgate-Palmolive	Electronic Arts
American Express	 3	Cornina	Eli Lilly

Corning



According to data maintained on an ongoing basis by the Yale School of Management, of the more than 1,200 companies tracked globally, nearly 175 S&P 500 companies have either fully withdrawn, suspended operations, scaled back or delayed future investment in Russia

Emerson E	lectric
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EPAM Systems

Equinix

Estee Lauder

Etsy

Expedia Group

Exxon Mobil

FedEx

FMC Corp

Ford Motor Co

Fortinet

Fortive

Garmin

General Electric

General Mills

General Motors

Goldman Sachs

Halliburton

Hasbro

HP Enterprise

Hilton

Honeywell

HPInc

IDEXX Laboratories

Illinois Tool Works

Ingersoll Rand

Intel

Intercontinental

Exchange

IBM

Interpublic Group

Intuit

IPG Photonics

Johnson & Johnson

Johnson Controls

International

JPMorgan Chase

Juniper Networks

Kellogg

Kimberly-Clark

Kraft Heinz

Lamb Weston Holdings

Linde

Live Nation Entertainment Lumen Technologies

LyondellBasell

Marriott International

Marsh & McLennan

Mastercard

McCormick & Co

McDonald's

Merck & Co

Meta Platforms

Mettler-Toledo International

Micron Technology

Microsoft

Mohawk Industries

Source: Yale School of Management. Data as of May 12, 2022.

PACCAR



According to data maintained on an ongoing basis by the Yale School of Management, of the more than 1,200 companies tracked globally, nearly 175 S&P 500 companies have either fully withdrawn, suspended operations, scaled back or delayed future investment in Russia

Mondelez	Otis Worldwide

Motorola Solutions Paramount Global

MSCI Parker-Hannifin

Nasdaq PayPal

Moody's

NetApp Pentair

Netflix PepsiCo

Nielsen Holdings Pfizer

NIKE Philip Morris

NortonLifeLock PPG Industries

Norwegian Cruise Line Procter & Gamble

NVIDIA PTC Inc

NXP Semiconductors PVH

Omnicom Group QUALCOMM Inc

Oracle Ralph Lauren

Raytheon Technologies

Rockwell Automation

S&P Global

Salesforce

Schlumberger

Stanley Black & Decker

Starbucks

State Street Corp

Take-Two Interactive

Software

Thermo Fisher Scientific

TJX Companies

Trane Technologies

Trimble

Twitter

Under Armour

United Airlines

Universal Health Services

UPS

Valero Energy

VF Corp

Visa

Walt Disney

Warner Bros Discovery

Waters Corp

Westinghouse Air Brake

Technologies

Whirlpool

Willis Towers Watson

Yum! Brands

Zoetis

Source: Yale School of Management. Data as of May 12, 2022.

Self & Progressive Sanctioning / MAY 2022 / page 33

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Tom Joyce is a Managing Director and Capital Markets Strategist within MUFG's global capital markets and investment banking business. Based in New York, Tom heads a team that creates customized analytical content for multi-national S&P 500 companies. His team provides in depth analysis on the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

Tom has over 25 years of Investment Banking experience in New York, London, Hong Kong, and San Francisco. Over the last 15 years, Tom created and built the Capital Markets Strategy role, advising corporate C-Suite executives (Boards, CEOs, CFOs, and Treasurers) on the pervasive macro forces driving markets. Tom also presents at dozens of corporate events each year including Board meetings, CEO ExCo sessions, CFO and Treasury off-sites, corporate leadership events and conferences.

Tom's educational background includes a year of study at Oxford University from 1991 - 1992, a Bachelor of Arts in Political Science from Holy Cross College in 1993, and a MBA from Kellogg Business School, Northwestern University in 2000.

Tom resides in New Canaan, CT with his wife and four sons, where he coaches youth basketball and serves on the Board of Trust ees of the New Canaan Library, the Board of the New Canaan Football (Soccer) Club and the Holy Cross College President's Council.

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Hailey Orr is a Director in MUFG's Capital Markets Strategy group within the global capital markets and investment banking business. The team provides market based content for corporate clients to assist in strategic decision making. Focus areas include the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

Hailey has a decade of Wall Street experience, including three years as a Consumer Sector Specialist in Equity Sales and seven years as a Capital Markets Strategist. Hailey is also a member of MUFG's Inclusion & Diversity Council and has devoted years to participating in and developing Wall Street recruiting programs.

Hailey graduated with honors from the University of Michigan's Ross School of Business with a BBA and a minor in International Studies.

In March 2020, Crain's New York Business Magazine named Hailey one of the "Rising Stars in Banking and Finance".



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Stephanie has spent over three years as a Capital Markets Strategist. At her prior firm, Stephanie was a part of the Americas Women's Network Junior Council and was an active member of the University of Michigan recruiting team.

Stephanie graduated with honors from the University of Michigan's Ross School of Business with a BBA.

MUFG's Capital Markets Strategy Team

The MUFG Capital Markets Strategy team provides monthly publications and weekly policy notes, presenting to Boards and C-Suite executives, on a broad range of transformative themes driving the FX, rates and credit markets including: the COVID-19 recovery, ESG's acceleration, tax code policy changes, US-China decoupling, corporate strategy, geopolitical risk and central bank monetary policy.













MUFG's Capital Markets Strategy Team

























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