The Implications of Sanctions on the Russian Economy

Sergei Guriev
Sciences Po

03. March 2022
Markus Brunnermeier
Cash is King during “Digital Embargo”

- Moscow Metro without Apple/Google Pay

Jason Corcoran @jason_corcoran - Feb 28
Apple Pay and Google Pay no longer work on Moscow’s metro system, leading to long queues as people fumble about for cash.
- Non-linearity in sanctions?
  - Effect of small sanctions is different from large

- Sanctions on whom?
  - Leader
  - Population
  - Who can trigger power change? Whom to incentivize

- ... vs. defense against sanctions
Inflation Anchor

- Forward not backward looking, but interlinked
- How long are inflation expectations anchored?
  - Belief: Anchored = inflation is temporary and returns to target inflation
  - Allows central bank to smooth out shocks
    ⇒ Resilience (bounce back)
  - Overstretch it and anchor breaks
    ⇒ Resilience breaks (Amplification)

- High cost of “re-anchoring”
  - Rebuilding trust/reputation
  - Volcker recession
Higher order belief coordination (convention, common knowledge (David Lewis))

- Disagreement
- Uncertainty what others’ belief (about others’ beliefs ...)

Source: NYFed
Inflation Anchor: Uncertainty and Disagreement

- Higher order **beliefs coordination** (convention, common knowledge (David Lewis))
  - *Uncertainty* what others’ belief (about others’ beliefs ...)
  - *Disagreement*

- Strengthening the inflation anchor:
  - Focal point on anchor
  - + no other focus point:
    creates confusion/uncertainty about alternative beliefs
Higher order beliefs coordination
(convention, common knowledge (David Lewis))
- Uncertainty what others’ belief (about others’ beliefs ...)
- Disagreement

Strengthening the inflation anchor:
- Focal point on anchor
- + no other focus point:

Trust in/reputation of central bank
- Policy mistake vs. exogenous/geopolitical shock
- New unclear monetary policy regime
  ⇒ coordinating to CK beliefs is difficult
Inflation Expectations: Salience

- What drives citizens’ inflation expectations?
  - New Keynesian Perspective:
    - Staggered price adjustment + strategic complementarities
  - Salience of certain prices?
    - Milk, gasoline, chocolate (in Germany)
    - Why do energy prices carry so much weight?
      - Geopolitical situation

- Why are certain prices flexible others not?
Poll

1. What should be the main target of sanctions?
   a. Oligarchs
   b. Military elites
   c. Financial system
   d. State media

2. Should the West introduce oil and gas embargo
   a. Yes
   b. No

3. Should EU offer membership to Ukraine?
   a. Yes, admit right away
   b. Yes, start accession negotiations right now
   c. Not now, (structural reforms are needed first)
The implications of sanctions on the Russian economy

Sergei Guriev

March 3, 2022
Pre-war economic outlook: micro vs. macro

**Slow economic growth**

- Stagnation: average GDP growth rate in 2013-19: 0.9% per year
  - Projected to continue stagnating after Covid
- Falling household incomes
- Capital outflow: about 4% GDP per year
- Investment/GDP stagnating at 20-22%

**Robust macro**

- Balanced budget (based on $44/barrel),
- Low debt: 20%GDP sovereign debt (including 5%GDP external), 30%GDP total external debt
- Large currency reserves (40% GDP)
- Large sovereign wealth fund: 12% GDP
- Inflation targeting
- Recapitalized banking system
The only major economy with a balanced budget in 2022-24

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>-3.5</td>
<td>-3.0</td>
<td>-3.0</td>
<td>-3.6</td>
<td>-10.2</td>
<td>-7.9</td>
<td>-5.2</td>
<td>-4.2</td>
<td>-3.8</td>
<td>-3.6</td>
<td>-3.5</td>
</tr>
<tr>
<td>Advanced Economies</td>
<td>-2.7</td>
<td>-2.4</td>
<td>-2.5</td>
<td>-3.0</td>
<td>-10.8</td>
<td>-8.8</td>
<td>-4.8</td>
<td>-3.6</td>
<td>-3.2</td>
<td>-3.1</td>
<td>-3.0</td>
</tr>
<tr>
<td>Canada</td>
<td>-0.5</td>
<td>-0.1</td>
<td>0.3</td>
<td>0.5</td>
<td>-10.9</td>
<td>-7.5</td>
<td>-2.2</td>
<td>-0.5</td>
<td>-0.1</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>Euro Area</td>
<td>-1.5</td>
<td>-0.9</td>
<td>-0.5</td>
<td>-0.6</td>
<td>-7.2</td>
<td>-7.7</td>
<td>-3.4</td>
<td>-2.4</td>
<td>-2.0</td>
<td>-1.7</td>
<td>-1.6</td>
</tr>
<tr>
<td>France</td>
<td>-3.6</td>
<td>-3.0</td>
<td>-2.3</td>
<td>-3.1</td>
<td>-9.2</td>
<td>-8.9</td>
<td>-4.7</td>
<td>-3.9</td>
<td>-3.6</td>
<td>-3.4</td>
<td>-3.4</td>
</tr>
<tr>
<td>Germany</td>
<td>1.2</td>
<td>1.3</td>
<td>1.9</td>
<td>1.5</td>
<td>-4.3</td>
<td>-6.8</td>
<td>-1.8</td>
<td>-0.4</td>
<td>0.0</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Italy</td>
<td>-2.4</td>
<td>-2.4</td>
<td>-2.2</td>
<td>-1.6</td>
<td>-9.5</td>
<td>-10.2</td>
<td>-4.7</td>
<td>-3.5</td>
<td>-2.9</td>
<td>-2.6</td>
<td>-2.4</td>
</tr>
<tr>
<td>Spain1</td>
<td>4.3</td>
<td>3.0</td>
<td>2.5</td>
<td>2.9</td>
<td>-11.0</td>
<td>-8.6</td>
<td>-5.0</td>
<td>-4.4</td>
<td>-4.2</td>
<td>-4.2</td>
<td>-4.3</td>
</tr>
<tr>
<td>Japan</td>
<td>-3.8</td>
<td>-3.3</td>
<td>-2.7</td>
<td>-3.1</td>
<td>-10.3</td>
<td>-9.0</td>
<td>-3.9</td>
<td>-2.1</td>
<td>-2.1</td>
<td>-2.1</td>
<td>-2.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-3.3</td>
<td>-2.4</td>
<td>-2.2</td>
<td>-2.3</td>
<td>-12.5</td>
<td>-11.9</td>
<td>-5.6</td>
<td>-3.6</td>
<td>-3.2</td>
<td>-3.1</td>
<td>-2.9</td>
</tr>
<tr>
<td>United States2</td>
<td>4.3</td>
<td>5.8</td>
<td>5.4</td>
<td>5.7</td>
<td>-14.9</td>
<td>-10.8</td>
<td>-6.9</td>
<td>-5.7</td>
<td>-5.2</td>
<td>-5.3</td>
<td>-5.3</td>
</tr>
<tr>
<td>Others</td>
<td>0.5</td>
<td>1.2</td>
<td>1.2</td>
<td>-0.2</td>
<td>-5.2</td>
<td>-4.2</td>
<td>-2.3</td>
<td>-1.4</td>
<td>-1.0</td>
<td>-0.7</td>
<td>-0.6</td>
</tr>
<tr>
<td>Emerging Market Economies</td>
<td>-4.8</td>
<td>-4.1</td>
<td>-3.7</td>
<td>-4.7</td>
<td>-9.6</td>
<td>-6.6</td>
<td>-5.8</td>
<td>-5.2</td>
<td>-4.8</td>
<td>-4.4</td>
<td>-4.1</td>
</tr>
<tr>
<td>Excluding MENA Oil Producers</td>
<td>-4.4</td>
<td>-4.0</td>
<td>-3.9</td>
<td>-4.9</td>
<td>-9.7</td>
<td>-6.9</td>
<td>-6.0</td>
<td>-5.3</td>
<td>-4.9</td>
<td>-4.5</td>
<td>-4.2</td>
</tr>
<tr>
<td>Asia</td>
<td>-4.0</td>
<td>-4.0</td>
<td>-4.5</td>
<td>-5.9</td>
<td>-10.8</td>
<td>-7.9</td>
<td>-7.0</td>
<td>-6.2</td>
<td>-5.7</td>
<td>-5.2</td>
<td>-5.8</td>
</tr>
<tr>
<td>China</td>
<td>-3.7</td>
<td>-3.8</td>
<td>-4.7</td>
<td>-6.3</td>
<td>-11.2</td>
<td>-7.5</td>
<td>-6.8</td>
<td>-6.2</td>
<td>-5.6</td>
<td>-5.0</td>
<td>-4.5</td>
</tr>
<tr>
<td>India</td>
<td>-7.1</td>
<td>-6.2</td>
<td>-6.4</td>
<td>-7.4</td>
<td>-12.8</td>
<td>-11.3</td>
<td>-9.7</td>
<td>-8.8</td>
<td>-8.3</td>
<td>-8.1</td>
<td>-7.8</td>
</tr>
<tr>
<td>Europe</td>
<td>-2.8</td>
<td>-1.8</td>
<td>0.3</td>
<td>-0.7</td>
<td>-5.6</td>
<td>-3.2</td>
<td>-2.4</td>
<td>-2.1</td>
<td>-2.2</td>
<td>-2.3</td>
<td>-2.5</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>-3.7</td>
<td>-1.5</td>
<td>2.9</td>
<td>1.9</td>
<td>-4.0</td>
<td>-0.6</td>
<td>0.0</td>
<td>0.2</td>
<td>0.1</td>
<td>-0.2</td>
<td>-0.5</td>
</tr>
<tr>
<td>Latin America</td>
<td>-6.0</td>
<td>-5.4</td>
<td>-5.0</td>
<td>-4.1</td>
<td>-8.8</td>
<td>-5.7</td>
<td>-4.9</td>
<td>-4.2</td>
<td>-3.5</td>
<td>-3.1</td>
<td>-2.9</td>
</tr>
<tr>
<td>Brazil</td>
<td>-9.0</td>
<td>-7.9</td>
<td>-7.1</td>
<td>-5.9</td>
<td>-13.4</td>
<td>-6.2</td>
<td>-7.4</td>
<td>-6.4</td>
<td>-5.4</td>
<td>-4.8</td>
<td>-4.4</td>
</tr>
<tr>
<td>Mexico</td>
<td>-2.8</td>
<td>-1.1</td>
<td>-2.2</td>
<td>-2.3</td>
<td>-4.5</td>
<td>-4.2</td>
<td>-3.5</td>
<td>-3.2</td>
<td>-2.9</td>
<td>-2.8</td>
<td>-2.8</td>
</tr>
<tr>
<td>MENA</td>
<td>-10.1</td>
<td>-5.3</td>
<td>-1.8</td>
<td>-2.9</td>
<td>-8.2</td>
<td>-4.3</td>
<td>-3.7</td>
<td>-3.7</td>
<td>-3.7</td>
<td>-3.4</td>
<td>-3.4</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>-17.2</td>
<td>-9.2</td>
<td>-5.9</td>
<td>-4.5</td>
<td>-11.3</td>
<td>-3.1</td>
<td>-1.8</td>
<td>-1.4</td>
<td>-1.1</td>
<td>-0.6</td>
<td>0.1</td>
</tr>
<tr>
<td>South Africa</td>
<td>-3.7</td>
<td>-4.0</td>
<td>-3.7</td>
<td>-4.8</td>
<td>-10.8</td>
<td>-8.4</td>
<td>-7.0</td>
<td>-6.4</td>
<td>-6.2</td>
<td>-6.5</td>
<td>-6.8</td>
</tr>
<tr>
<td>Low-Income Developing Countries</td>
<td>-3.8</td>
<td>-3.6</td>
<td>-3.4</td>
<td>-3.9</td>
<td>-5.2</td>
<td>-5.4</td>
<td>-5.8</td>
<td>-4.5</td>
<td>-4.3</td>
<td>-4.1</td>
<td>-3.9</td>
</tr>
<tr>
<td>Kenya</td>
<td>-7.8</td>
<td>-7.5</td>
<td>-7.0</td>
<td>-7.3</td>
<td>-8.1</td>
<td>-8.0</td>
<td>-6.7</td>
<td>-4.9</td>
<td>-4.0</td>
<td>-3.2</td>
<td>-2.5</td>
</tr>
<tr>
<td>Nigeria</td>
<td>-4.6</td>
<td>3.4</td>
<td>4.3</td>
<td>-4.7</td>
<td>-5.8</td>
<td>-6.1</td>
<td>-6.0</td>
<td>-5.5</td>
<td>-5.6</td>
<td>-5.9</td>
<td>-6.1</td>
</tr>
<tr>
<td>Vietnam</td>
<td>-3.2</td>
<td>-2.0</td>
<td>-1.0</td>
<td>-3.3</td>
<td>-3.9</td>
<td>-4.7</td>
<td>-4.7</td>
<td>-4.5</td>
<td>-4.2</td>
<td>-3.9</td>
<td>-3.6</td>
</tr>
<tr>
<td>Oil Producers</td>
<td>-5.2</td>
<td>-2.8</td>
<td>0.4</td>
<td>-0.2</td>
<td>-7.5</td>
<td>-4.2</td>
<td>-2.2</td>
<td>-1.6</td>
<td>-1.6</td>
<td>-1.6</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

Source: IMF Oct 2021
Real GDP and real disposable incomes, 2007=100

- Real disposable income
- Real GDP
Falling behind India and China

<table>
<thead>
<tr>
<th>Year</th>
<th>Russia</th>
<th>China</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>2.4%</td>
<td>3.0%</td>
<td>12.5%</td>
</tr>
<tr>
<td>2014</td>
<td>3.0%</td>
<td>12.5%</td>
<td>17.4%</td>
</tr>
<tr>
<td>2015</td>
<td>17.4%</td>
<td>17.4%</td>
<td>17.4%</td>
</tr>
<tr>
<td>2016</td>
<td>17.4%</td>
<td>17.4%</td>
<td>17.4%</td>
</tr>
<tr>
<td>2017</td>
<td>17.4%</td>
<td>17.4%</td>
<td>17.4%</td>
</tr>
<tr>
<td>2018</td>
<td>17.4%</td>
<td>17.4%</td>
<td>17.4%</td>
</tr>
<tr>
<td>2019</td>
<td>17.4%</td>
<td>17.4%</td>
<td>17.4%</td>
</tr>
<tr>
<td>2020</td>
<td>17.4%</td>
<td>17.4%</td>
<td>17.4%</td>
</tr>
</tbody>
</table>

Share in world GDP
Middle income trap: Russia is not South Korea

Source: IMF. Solid: Russia. Dashed: Korea (-11 years).
PUTIN’S APPROVAL RATING

- Approve
- Disapprove

Source: Levada Center

3/3/22

Sergei Guriev
Pre-war sanctions: very minor impact

Survey by Korhonen (2019)

<table>
<thead>
<tr>
<th>Paper</th>
<th>Period</th>
<th>Effect on GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMF (2019)</td>
<td>2014-18</td>
<td>1%</td>
</tr>
<tr>
<td>Pestova and Mamonov (2019)</td>
<td>2014-15</td>
<td>1.2%</td>
</tr>
<tr>
<td>Kholodilin and Netšunajev (2019)</td>
<td>2014-16</td>
<td>No effect</td>
</tr>
<tr>
<td>Barsegyan (2019)</td>
<td>2014-17</td>
<td>1.5% in total</td>
</tr>
</tbody>
</table>

Impact on trade

- Crozet and Hinz (2020): 7% reduction in exports for Russia, 0.3% reduction in exports for the West

Micro studies

- Ahn and Ludema (2020) “The sword and the shield”: targeted firms suffer but state’s protection of strategic firms helps

Countersanctions

- Volchkova and Kuznetsova (2019): 0.5% GDP annual loss of consumer surplus, 0.05%GDP deadweight loss
Sanctions 2022

Certain sanctions were priced in before the war

- Despite substantial increase in oil prices ...
- Ruble lost about 10% relative to “pre-tension” times
- Ruble-denominated stock price index lost about 20%
- The worst-case sanctions scenario expected: switching off SWIFT

Actual sanctions went much farther

- Total blocking sanctions again major players including VTB (but not Sberbank yet)
- Comprehensive export controls including chips, aircraft, software
- Most importantly, sanctions against Russian Central Bank
  - Including freezing its currency reserves
  - Formally, do not cover gold (22%) and yuan (13%) – but de facto these cannot be used as well
# Short- vs long-term impact

## Long-term impact
- Full exodus of foreign investors
- Isolation from Western technology and intermediate inputs
- Major outflow of human capital

## Immediate impact
- Sanctions against the Central Bank cost ruble about 30% in 1 day
- Central Bank increased the key rate from 9.5% to 20%
  - And introduced various currency controls
- Currency exchange and stock market are closed
  - Outside of Russia, unprecedented fire sale
    - Sberbank’s P/E is 0.4, Gazprom’s MCap $250M
- Major disruptions in getting paid for oil exports
  - And Russian oil trades at $17/bbl discount to Brent
- JPMorgan’s forecast: 20% contraction in 2Q22 (SAAR) and 3.5% fall in GDP in 2022
Russia 5 years CDS
What next?

**Economy**

- Assuming no oil & gas embargo (with or without sanctions on Sberbank):
  - Carveouts for debt and for oil & gas exports
  - No sovereign default: oil exports sufficient to service debt
    - But may see many corporate defaults on FX-denominated debt
    - Imports will collapse, oil revenues will suffice to pay for whatever imports remain
  - Oil embargo joined by China:
    - Unchartered territory
    - Humanitarian crisis, oil for medicines program

**Politics**

- Dramatic economic shock may not be enough to stop Putin right away
  - Instead, he will complete the shift from spin dictatorship to fear dictatorship
  - Closing down independent media (already) and social networks (soon)
  - Introducing martial law (tomorrow)
Open questions

Role of crypto
- May help Russia to circumvent sanctions
- Will help Russians to circumvent capital control

Role of China
- Substitute critical imports?
- Provide access to the payment system?

Life without SWIFT, Visa and Mastercard?
- So far only some banks are cut off
- There are domestic substitutes SPFS and NSPK (“Mir” card)