

North Korea's Economic Future

Trapped

October 23, 2023
For GWIKS

William B. Brown
NAEIA.Com

Trapped Between Plan and Market: Implications for North Korean Stability

Quick theoretical look at the North Korean Economic Problem and suggestions as to where it is going. |

In Depth Look at NK Monetary Issues

- Website NAEIA.com naeia.com
 - Analysis Tab -- this presentation
 - Sept 18: North Korea Exchange Rate Pressures
- Stinson 38 North
- Thanks to Kim Byong Yeon: “Unveiling the North Korean Economic Collapse,” 2017
- Brown, Chapter Two: “Kim Il Sung’s Juche Economy ” in Chiang Min-hua, North Korea’s Political Economy, 2022
 - [The Political Economy of North Korea: Domestic, Regional, and Global Dynamics: Chiang, Min-Hua: 9781955055451: Amazon.com: Books](#)
- Brown, Features of International Sanctions on North Korea, Korea Development Institute [ki n NAEIA.com](#)

Economic Growth

Growth in GDP is a function of:

- More **Inputs** of Capital, Labor, Land, Natural Resources
- **Efficiency** in use of these inputs. TFP.

Capital inputs supplied by Capital Stock which is built by savings over time employed as investment. It depreciates to create NDP.

Savings equal production less consumption.

- Socialist or command systems grow by forced saving and investment, increasing capital stock, as determined by state planners. Markets, money interfere with the plan. Fixed wages and price, weak incentives and slow adjustment, are problems.
- Capitalist systems grow by efficiency, changing use of inputs, as determined by competition and as prices force adjustments. Monopoly interferes with competition, and externalities, require regulation.

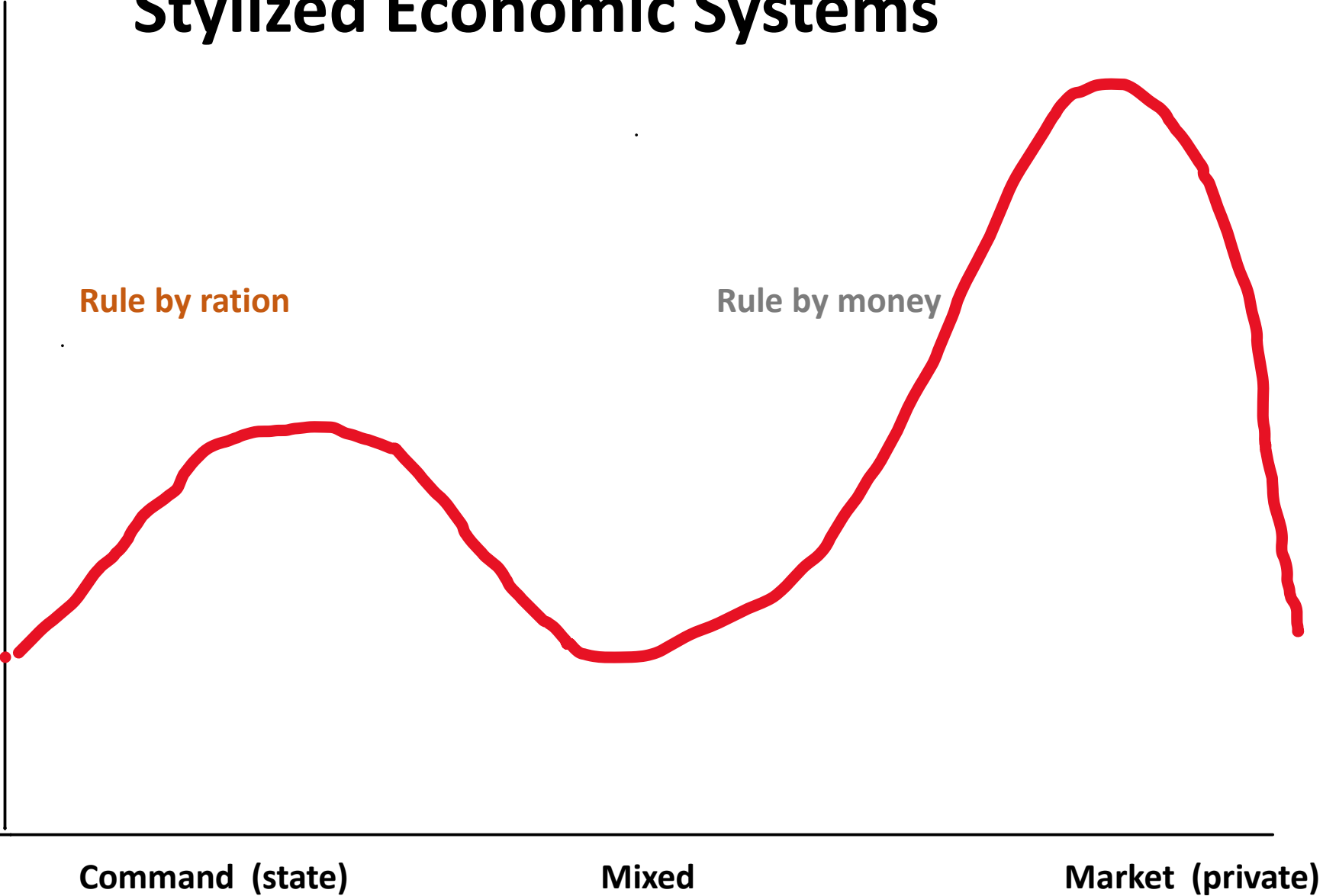
Poverty Trap

Subsistence Economy, no savings possible.

Growth can come only via external sources of savings/investment, foreign aid, or Efficiency Change

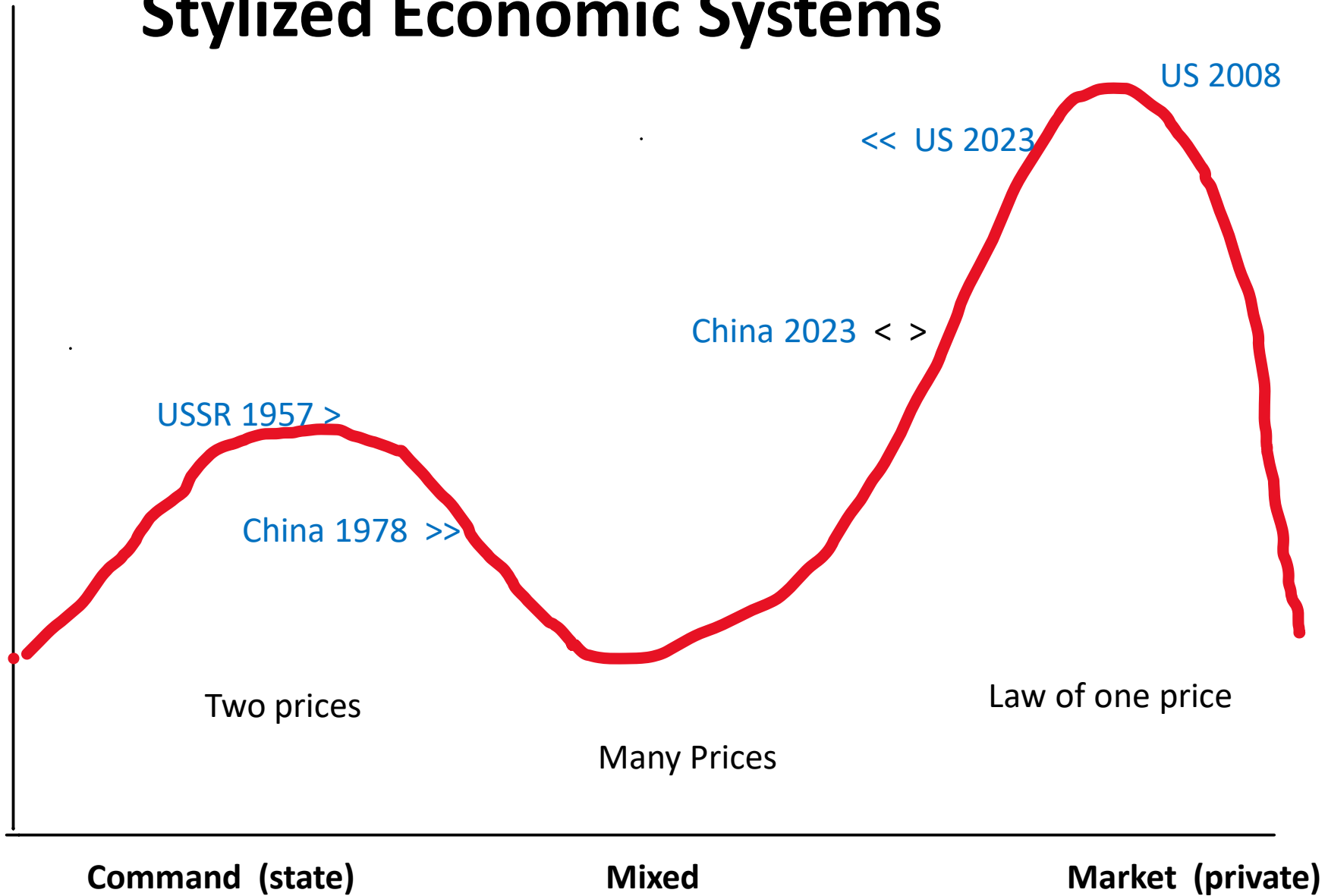
Production efficiency

Stylized Economic Systems



Production
efficiency

Stylized Economic Systems



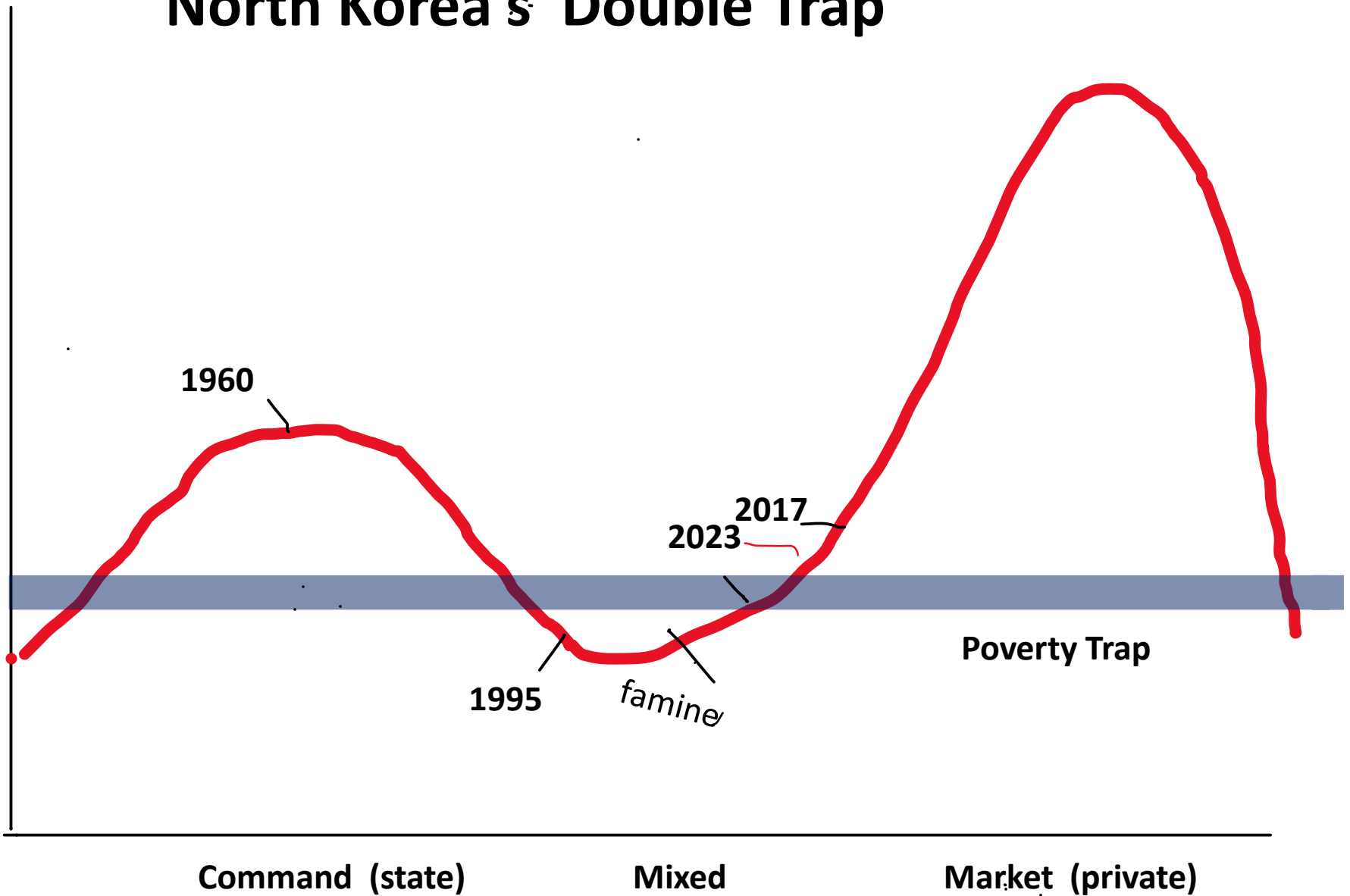
Production
Efficiency

North Korea: Caught in the Middle



Production Efficiency

North Korea's Double Trap



Command (state)

Mixed

Market (private)

Poverty Trap

What We Think We Know

A Very Poor Country

- GDP in 2021 about \$27 bn. BOK estimate
- Population 26 million
- Per-capita GDP \$1,000 - \$2,000
- 180 in the world
- NY Times reports \$1,184.79 in 2020 !
- Negative growth 2020-22
- Malnutrition, extreme poverty is prevalent

Why is North Korea So Poor?

- Hint: Its not for lack of capital and resources, or culture
 - Excellent natural resources per capita
 - Nonferrous and iron metals
 - Hydro power
 - Coal
 - Relatively low pop density for East Asia
 - Excellent geography
 - Excellent human capital relative to income
 - Much industrial capital
- Well organized ancient civilization

Answer—Weak productivity

- North Korea's system makes poor use of its ample physical and human capital resources—probably the worst in the world.
- Why? Two issues, one micro, one macro
 - Mixed command and market system delivers poor economic decisions. Two prices for everything.
 - Partial dollarization fixes inflation but impedes monetary policy, starves state economy.
- Trapped between both systems. Poverty trap plus transition trap.

Not Always This Way: 1945 in Good Shape

- Probably in better shape than rest of Asia. No WWII in Korea.
- 1910-45 Japan built up infrastructure and industry in northern part of its Korean colony.
 - taking advantage of mineral resources and hydro.
 - avoiding US bombing
 - launchpad for invasion of China
- Russians counted 1,400 factories taken over by socialist state in 1945
- Korean War devastating but Soviet, EE, and Chinese aid built back quickly.

1956-1976 Golden Age of NK Socialism

- By 1949 all industry socialized.
- By 1956 all farms collectivized.
- Central plan economy replaced ancient money/market economy
- Trade was strong with bloc countries, Japan and Europe. US rules prevented trade.
- Russians and Chinese criticized Kim Il Sung for **too much investment, not enough attention to living standards**, and weak exports but industry grew rapidly.
- 1976, prior to devastating default on western credits, probably peak year.
- Downward spiral ever since.

Zhou Enlai and Kim Il Sung, circa 1960

Kim is visiting China trying to obtain more industrial aid

Zhou: “We notice, looking across the river (Yalu) that you never have to turn off your lights. You have developed socialism far faster than we have.”

KIS: “Yes, but it is with your help.”

Zhou: “That is because you are holding down so many American forces, thus protecting the entire socialist world.” (Wilson Center Archives)

1997 Lights out



6/23/2023

William B. Brown NAEIA.com

15

Image and data processing by NOAA National Geophysical Data Center



William B. Brown NAEIA.com

Command Economy

Marxism

- Ownership of capital (means of production) is by state or collective, no private ownership.
- Rejects market prices for capital and labor.
- State sets prices high for consumption goods, low for investment goods.
- Allocation by decree via central plan.
- **Plan** emphasizes material growth via high investment, low consumption
- Divergent price systems prevents normal trade, investment with capitalist world.

Results

- Strong central state
- High share of investment rel. to consumption.
- Labor is paid rations, not money.
- No money economy creates dependent public.
- No personal financial savings.
- Individual incentives weak, poor productivity
- Limited gains from trade—COCOM
- **Supply Chain Nightmare!**
- All Marxist economies experience massive famine, dissolution.
- Except North Korea

Capitalist, Market Economy

What is a Market?

- **Private ownership of means of production**
- Requires competition, the force.
- Many sellers, Many buyers
- Rules, Structure
- Time, currency, behavior
- Compete for best price
- Market clears with flex price
- Usually most efficient outcome
- Decentralized, Unplanned
- **Law of One Price**

Marketization: Much more than “marketplaces”

- Goods Markets
- Services Markets
- **Labor Markets**
- Real Estate/Land Markets
- **Capital/Finance Markets**
- **Foreign Exchange Markets**

Kim Jong Un's Half-Step Financial Reforms

Allowed foreign currency to circulate at will.

- As in other dollarized economies, this dampened inflation.
- Creates new “good” for citizens to use their won to purchase.
- First time NK people had a financial savings vehicle—US dollars. Private savings must have soared, stopping inflation.

Encouraged factory autonomy, gave them pricing and production authority. How much is open to question.

- Market pricing would increase productivity, dampen inflation by creating new products. Especially in tech sector.

New Central Bank law in 2015 gave CB authority for exchange rate and loan activity, not Finance Ministry.

But reform not
extended to
farmers and state
employees—most
of the population

Pilot program aimed to decentralize farms stalled out.

Many state enterprises excluded, required to support Plan.

State set prices for key goods, like electricity, remained far too low.

Most importantly, without property rights, private savings flowed to US dollars and yuan cash and not to productive investments. Exception was small scale entrepreneurs, donju, and housing.

Macro-economy thus shifted from (state) investment-led to (private) consumption-led. No increase in aggregate demand so no inflation.

And dual wages system exploded, leading to massive state corruption.

Most critically, state wages remained at fixed low rates while market, productivity related wages, soared.

State wages set at 3-5,000 won per month, with declining value of ration perquisites.

Private wages soared to 300,000 won per month with no ration privilege. Investors could make much more.

SHORENSTEIN ASIA-PACIFIC RESEARCH CENTER

Figure 4.3. Checklist for Economic Reform

(Y under way, X not observed)

	2005	2023
1. * Continuation of inflation—(means market forces are at play)	Y	
2. * Changes in relative prices, i.e. rice versus corn	Y	
3. Big new public sector wage increases to match inflation	X	—
4. Reset of Public Distribution System (PDS) prices	X	Y
5. Complete elimination of PDS (end of rations)	X	
6. Increase in specialized (not rice/corn) farm production	Y	
7. Increase in foreign currency circulation or (see 7)	Y	
8. A new North Korea won (say <i>juche</i> won)	X	
9. * Breakdown of collective farms—private farming	?	—
10. * Non-kin employment in new, larger, private enterprises	X	—
11. New central government turnover tax	?	Y
12. * Intense budget debates, government layoffs	X	?
13. Public attention to Chosen (central) bank policy	X	Y
14. Substantial increase in exports	X	
15. Substantial increase in foreign equity (mining) investment	X	
16. Official use of “reform” word	?	
17. Increase in cross-Yalu border trade	Y	
18. New interest in WTO membership	X	
19. New interest in U.S. commercial liaison office	X	
20. Foreign enterprises directly pay North Korean workers	X	—
21. ** Central Bank uses high interest rates to absorb currency	X	Y

* Key Items. All five together are necessary and perhaps sufficient evidence of real

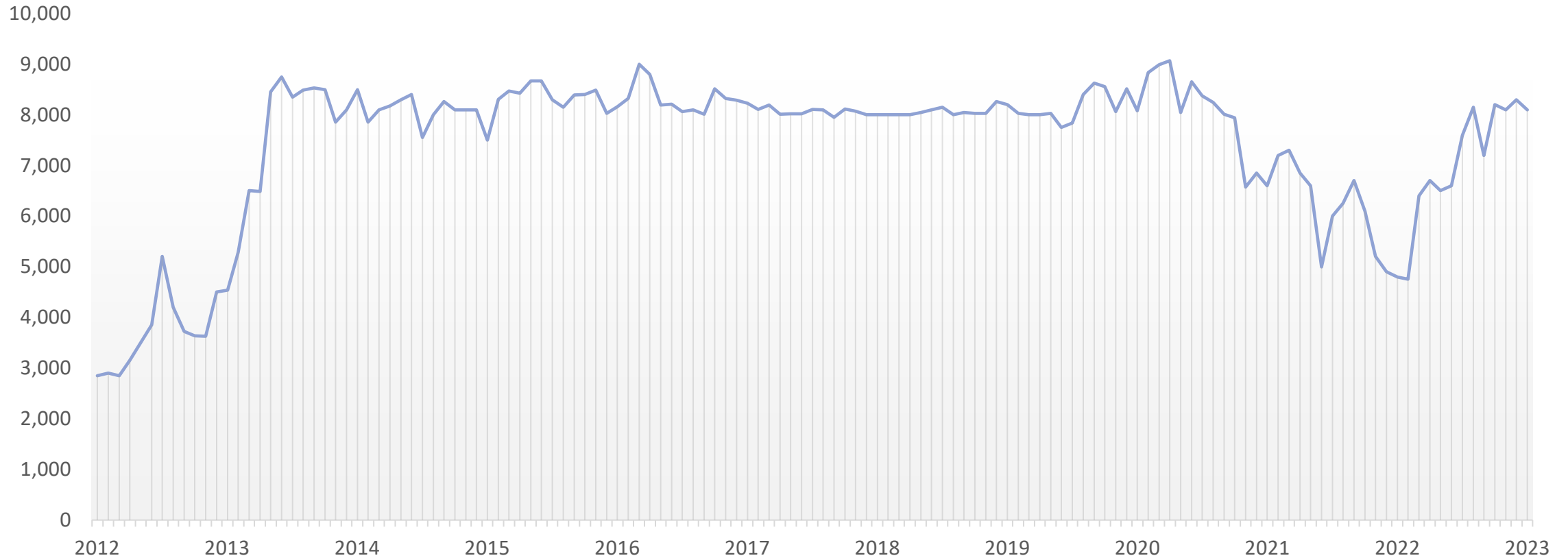
North Korea Foreign Exchange Rate Pressures

Control by Money?

For: US Department of Treasury, Korea Development Institute
September 14-15, 2023
William B. Brown
NAEIA.Com

Kim's Biggest Success

North Korea Won Per US Dollar
September 2012-August 2023



Last 4 Years

North Korea Won per US Dollar
Sep 2019- Aug 2023



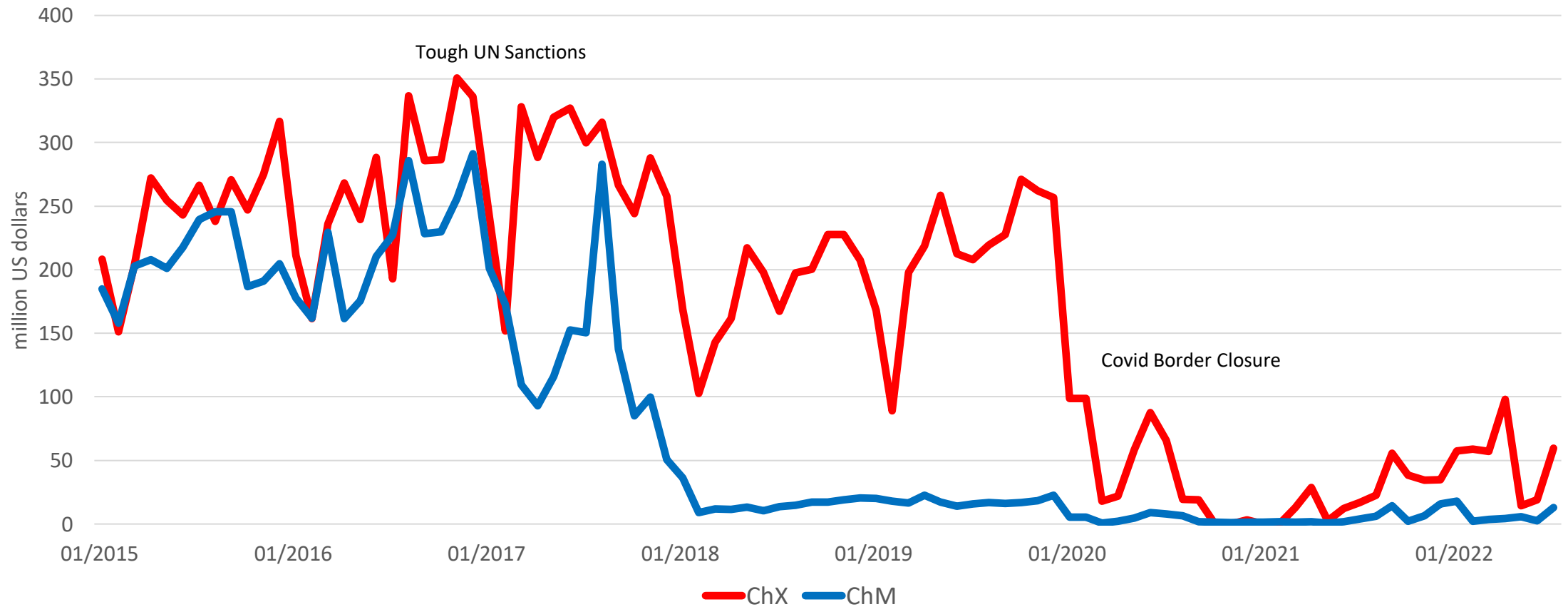
Dollarization

Kim Jong Un's Letter to Assembled Banking and Finance Functionaries in Pyongyang, 2015

“The sovereignty of the country is being violated as currencies of other countries are publicly circulating at home, but the financial and banking sector has not taken decisive measures. The flaws appearing in financial and banking work owe to the fact that the functionaries of this sector lack the revolutionary consciousness that they are the masters in charge of the country's economy, have fallen into defeatism, and are unable to implement with a do-or-die spirit the party's fiscal and financial policies.”

- Lee and Carlin, 38 North

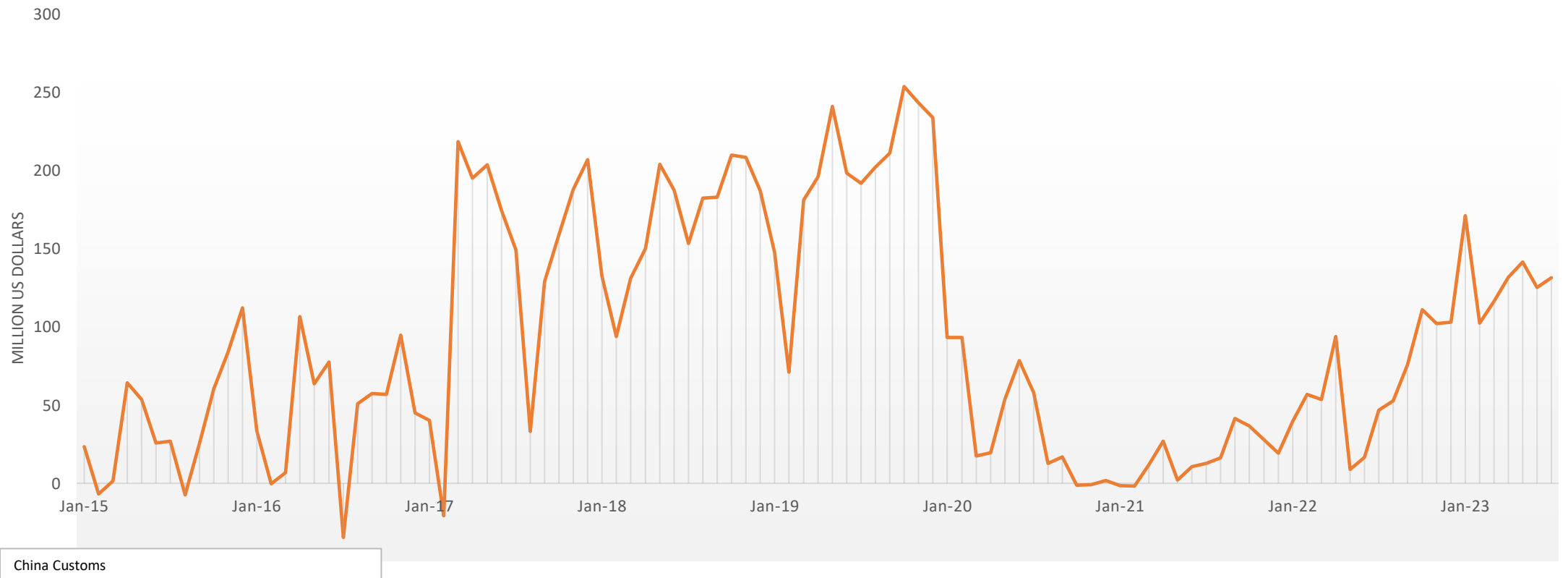
China-North Korea Trade Jan 2015- August 2023



China Trade Surplus with North Korea

Jan 2015 - July 2023

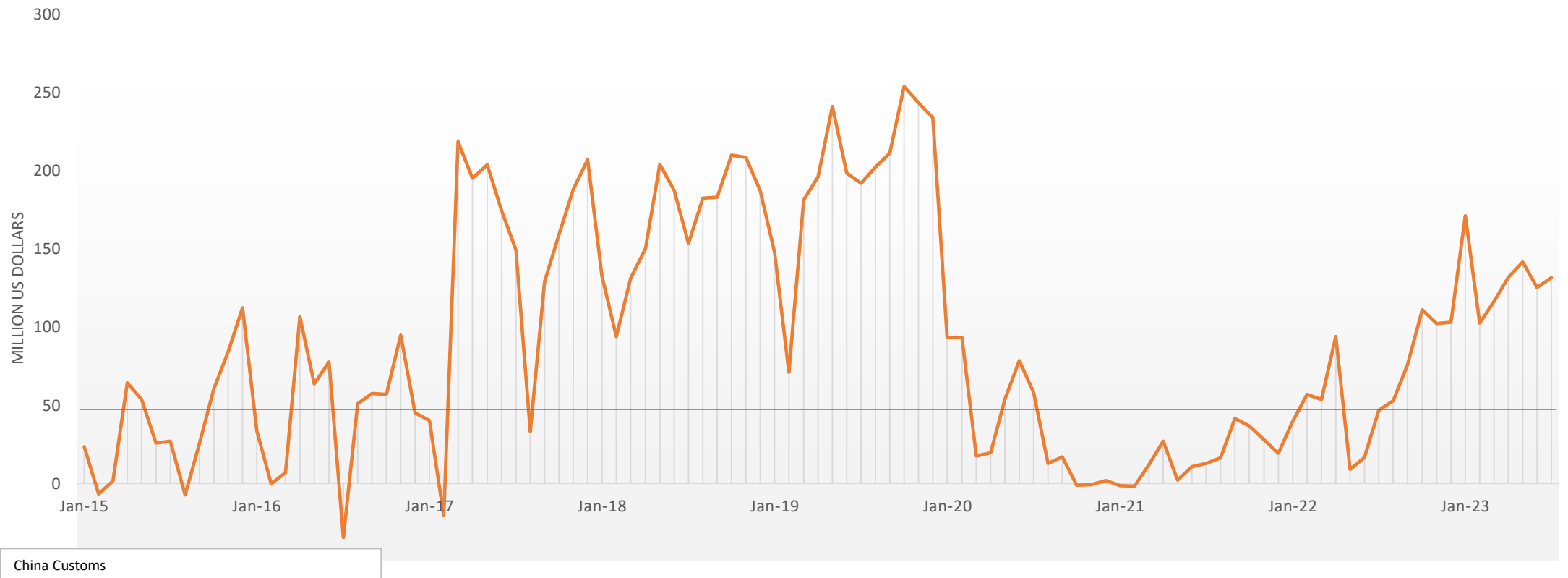
China Customs (excludes crude oil)



China Visible Trade Surplus with North Korea

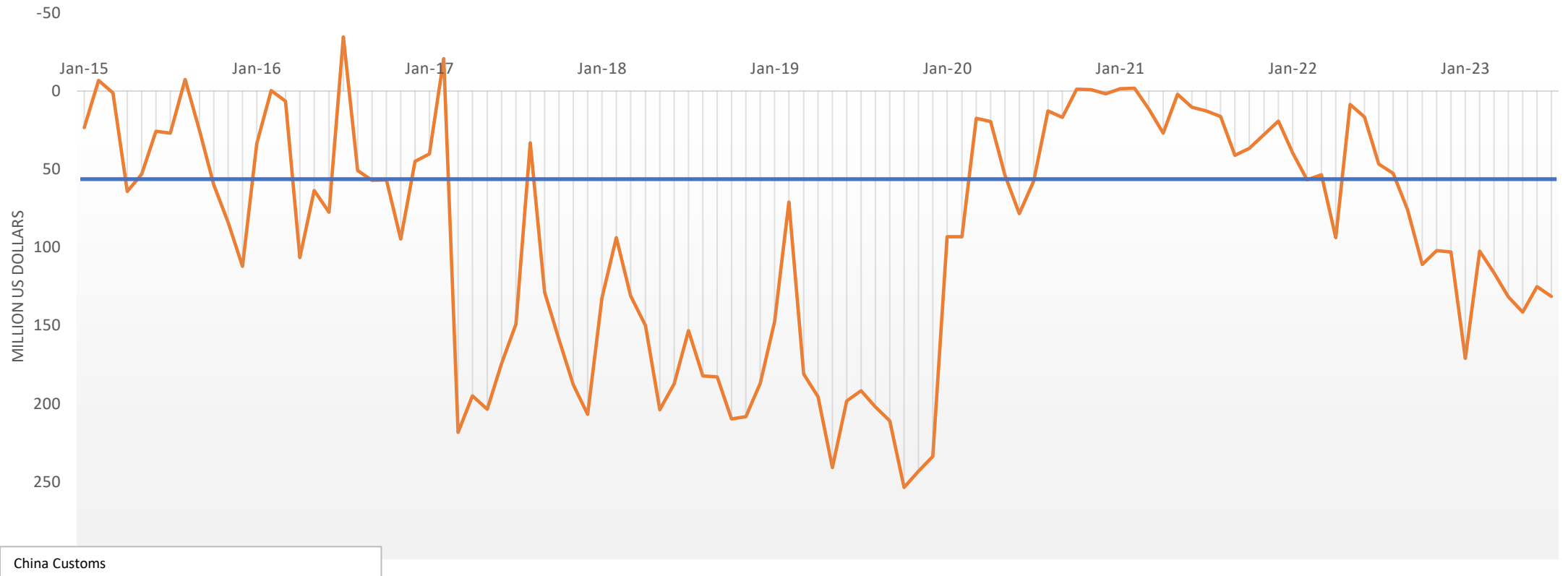
Jan 2015 - July 2023

China Customs (excludes crude oil)

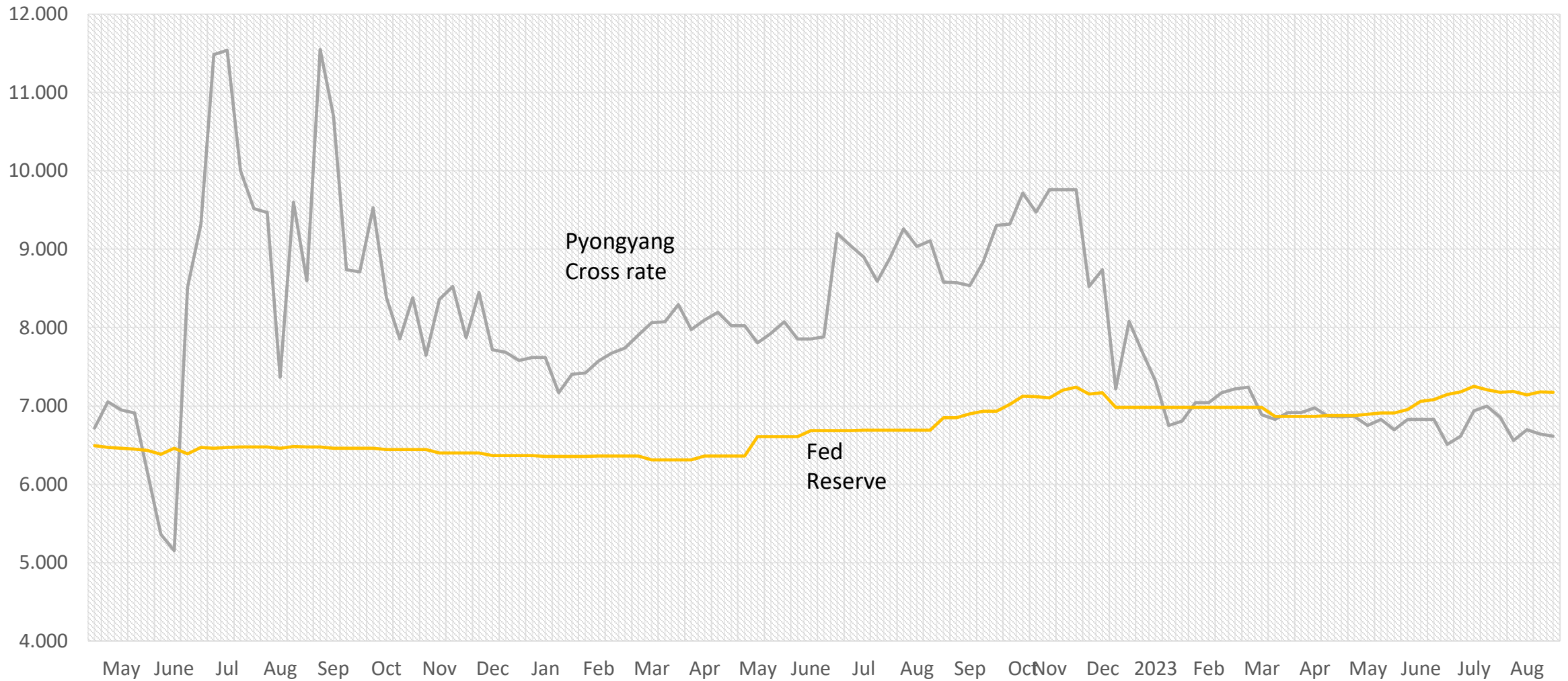


Implied North Korea Visible Trade Deficit with China Jan 2015 - July 2023

China Customs (excludes crude oil)



China Yuan per US Dollar Pyongyang cross-rate; 2021-23



Go to KDI Sanctions Paper

Potential Origins of Instability

- Financial panic—plunge in won exchange rate, jump in won prices. Forces reforms.
 - Elite complaints, loss of dollars, crackdowns
 - Firm's failure, can't meet ration or pay requirements
 - Labor unrest, unequal treatments (but no labor unions)
 - Military unrest, bad living conditions, no future
 - Peasant revolt, withholding grain supplies.
 - Regional uprising, far from center.
-
- Population probably won't blame Kim regime but second, third order hierarchy. Local Workers Party cells possibly take hit.
 - Offsets. No alternative leadership. Weak organizations. Worry of foreign intervention.

Dangerous Lack of Progress: Financial Issues Can Spark Unrest, Reform or Collapse

Wage and income differential between state sector and private sector seems to be widening. Trouble brewing for state industrial workers. (Poland example, not yet).

Reaction appears to target private incomes. Corruption increasing rampant.

Use of money creating private financial markets. Lack of regulation, laws, creates domestic hostility.

Dollarization helped stop inflation but inevitable speculation between currencies. Borrow in one, lend in the other. No bankruptcy laws. Fights.

Factory managers have more authority to adjust prices, procurement, and distribution but irrational prices leads to irrational results.

State faces balance budget requirement due to dollarization, tight money. No investment is the result. Deteriorating infrastructure.

Conclusion: Kim's singular achievement is in danger.

Kim's singular economic achievement, exchange rate and price stability, is in big danger with potential to disrupt the political and economic system. Inflation and money theft does that.

Tight monetary policy has pushed economy into severe recession.

Public has much more power than in previous regimes given their private holdings of foreign exchange, yuan and dollars. State has less control.

State budgets and wages are severely constrained due to need to protect won against circulating dollars and yuan.

Textbook solution is to sell state assets to private sector thus easing budget constraint, while raising state salaries, increasing prices of state supplied goods, and allowing property rights to encourage private sector productivity.

This could be done even in UN Sanctions environment.

Reform then Open

Chinese Construct, the order is important.

Reform in NK context means:

- Unify price and wage system
- Establish some private property rights
- Decollectivize agriculture
- Create new money and banking system, using interest rate to encourage private savings and direct investment to best uses. (SK model)
- Raise pay but shrink size of huge bureaucracy and military
- Privatize significant state assets including major factories.
- Establish tax system and transparent budget.

This could put economy on moderate growth track, without foreign opening.

Reform then leads to Opening, and massive engagement with rest of world. Breakout economic growth would ensue.