

HOW INFLATION HURTS AMERICA'S NATIONAL DEFENSE AND WHAT WE CAN DO ABOUT IT

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An NDIA White Paper | NDIA Strategy & Policy
September 2022

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September 2022

First published in 2022 by NDIA.org, 2101 Wilson Blvd, Suite 700, Arlington, VA 22201, United States of America.
(703) 522-1820

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EXECUTIVE SUMMARY

The Department of Defense (DoD) is dealing with significant inflation for the first time in 40 years. As detailed in this report, the DoD is particularly vulnerable to sudden inflation because of its lengthy budget and acquisition process. In short:

- As of the 3rd quarter of calendar year 2022, actual inflation has exceeded what was expected by 9 percentage points since inflation began to rise in January 2021.
- From Fiscal Years (FY) 2021 to 2023, the total loss of buying power to the Department of Defense (DoD) from this unexpected inflation will exceed \$110 billion dollars.
- This loss comes at a dangerous time. DoD faces the challenge of keeping pace with China while the defense industrial base (DIB) it depends on still suffers from COVID-19, supply chain, and workforce challenges.

- If the shortfall is left unaddressed, we should expect to see over time growing maintenance backlogs, lower readiness ratings, delays in modernization efforts, cost overruns in weapon and construction programs, and further disruptions to recruiting and retention.

The first step is to understand both the breadth and seriousness of the challenge. This paper offers Congress and the American people an explanation of the problem and a detailed estimate of inflation impacts.

The second step requires taking action. We provide recommendations to mitigate the damage where possible in the relevant sections of this paper.

All Americans are feeling the impact of the current high rate of inflation. Inflation is particularly disruptive to our national defense because the long budget and acquisition processes DoD uses prevents timely adjustments for inflation. Absent relief, it will undermine the readiness of our forces, the quality of life for our service members, and the timely deployment of modern weapon systems to our warfighters.

The primary impact of inflation is loss of buying power, which can be divided into two key challenges: Future Budget Challenges and the Current Execution Crisis.

FUTURE BUDGET CHALLENGES

The FY 2023 budget was submitted to Congress before the extent of the dramatic spike in inflation was understood. Adjusting for the latest inflation results and current forecasts for next year, **to maintain a constant level of buying power the FY 2023 President's Budget for DoD would require \$815 billion, \$42 billion more than the initial request.** This is close to the increases recommended by several defense committees in Congress. However, it is important to note that this adjustment would merely prevent lost buying power compared to what Congress had intended for FY2022.

Furthermore, DoD is likely to start the fiscal year on a Continuing Resolution (CR). Congress has generally passed CRs that fund DoD at prior year levels so that funding remains steady until Congress can agree on and enact the next year's Appropriation bill. This year, however, **a CR that keeps funding at last year's level would cause DoD to lose approximately \$6 billion in buying power each month** as it endures the compounded effect of three years of surging inflation.

CURRENT EXECUTION CRISIS

The second challenge is the impact of inflation on spending today. Airplanes, ships, tanks, and satellites being ordered or built now were priced in budgets developed prior to the onset of high inflation. This erosion of buying power is being experienced across the entire defense enterprise.

When highlighting the impacts of inflation in August, Major General Robert Rasch, then the program executive officer (PEO) for missiles and space, remarked that "Proposals are coming in almost unaffordable."

What he is experiencing is occurring across DoD. His budget was developed two years ago and does not reflect the inflation challenges his vendors face. PEOs face the unpleasant options of stretching out the program, reducing quantity, or lowering requirements.

For a sense of scale, in FY 2021 and FY 2022, inflation has eroded \$50 billion in buying power from DoD spending – more than DoD spends on the entire Army Guard and Air National Guard in a year. FY 2023 will see an additional loss of over \$20 billion for prior year budgets spent in 2023.

Our military's competitive advantage starts with our all-volunteer force. Two ways DOD invests in its people are how it compensates them and how it ensures they receive necessary training. In personnel accounts, inflation is eroding the value of our service members' military compensation package. This is having a disproportionate impact on junior and enlisted services members and their families. In operating accounts, readiness is negatively impacted as fuel and other costs rise resulting in reduced training and equipment maintenance.

Our military also relies on a world-class defense industrial base (DIB) to resource it with cutting-edge weapons systems, technology, and protective equipment. While every part of the U.S. economy has been impacted by rising costs and the business challenges of compressed margins, the DIB is one of the most affected sectors because of the rigid, long-lasting contract structure in defense procurement. Commercial firms can respond to increasing input prices by raising the prices of their products whereas defense firms are often locked into prices for several years. Defense firms are seeing their input costs rise now but, depending on contract types, have a limited ability to change the price charged the government. This can particularly damage small businesses that may not have the reserves necessary to survive the lengthy process of adjusting a price or absorb the losses until end of the contract. This has other policy challenges as DOD and Congress are keenly attuned to how the number of firms and particularly small businesses willing to do defense contracting is shrinking which is reducing competition.

SETTING THE RIGHT COURSE

Significant inflation is a major challenge for DoD and the DIB. It also compounds the challenges of recovering from COVID-19, dealing with a concurrent supply chain crisis, and accelerating modernization to maintain U.S. technological advantage over advanced adversaries.

KEY FINDINGS

- To maintain a constant level of buying power, the FY 2023 Defense budget needs to be \$815 billion, an increase of \$42 billion from the budget submission. This funding level would provide no net real growth in capability.
- FY 2021 and FY 2022 outlays are experiencing \$50 billion in lost buying power. This loss will either appear as reduced quantities and maintenance backlogs or cost overruns and schedule delays. Whether the cost is initially born by DoD or industry will depend on how the contract is written, but left unfunded, the inevitable consequence for national defense is the same. Because of their limited capital, the excess costs will hit small businesses hardest.
- When all impacts are combined (including over \$20 billion in execution impacts for FY 2023), the total inflation loss for FY 2021 to FY 2023 is over \$110 billion.
- This significant financial cut to the DIB arrives on the heels of the COVID-19 pandemic and supply chain challenges, adding significant risk to defense modernization as a hedge against potential near peer conflict. Because it is easier and faster to adjust prices in the private sector, if the impact of inflation on contracts is not addressed, firms that have a choice may exit the defense industrial base for the commercial market and reduce competition and diversity in the DIB.

RECOMMENDATIONS

To protect our current and future national security, NDIA recommends to Congress the following:

FY 2023 BUDGET CHALLENGES

- *Restore Buying Power in 2023 Budget:* Congress should add at least \$42 billion to the FY 2023 defense budget to reflect updated inflation information and avoid lost buying power.
- *Minimize Harm from a Continuing Resolution:* If FY 2023 begins on a CR, Congress should adjust this CR for inflation and allow for new starts and procurement quantity changes to avoid creating further program delays.

TODAY'S EXECUTION CHALLENGES

- *Stabilize Acquisition Programs:* Congress should direct that contract prices are adjusted for inflation. Programs that are currently being executed and that were priced prior to the onset of inflation should be adjusted to correct for unexpected inflation. Future contracts should include an automatic inflation adjustment clause.
- *Fix Fuel Funding:* Fuel prices have and will continue to fluctuate significantly and disrupt readiness and training. Congress should revise the fuel working capital fund so it is better able to handle future price shocks.
- *Enhance Data Reporting:* The disruption from the current inflation spike will endure for years after inflation has returned to normal. Congress should direct that appropriate data collection and regular progress reports are undertaken to show where DoD has been able to address the problem (for example, the number and value of contracts indexed and funded to the correct inflation) and what is left to be done (forecasts of future adjustments using updated guidance rates).

Note: This report assumes:

1. Inflation has already peaked
2. Inflation will decline to normal levels during the end of Fiscal Year (FY) 2024, and
3. Congress will fund future budgets for FY 2024 and beyond to a topline that finishes correcting for actual FY 2021, FY 2022, and FY 2023 inflation.

HOW INFLATION DAMAGES THE DEFENSE INDUSTRIAL BASE: A SMALL BUSINESS CASE STUDY

An SBA Certified 8(a), Woman Owned Small Business (WOSB) won a five year time and material contract to provide experienced engineers to support a government project. Under the terms of the existing contract, the government will increase what it pays for each engineer (by labor category) by 2% per each contract year for the next five years, a number that matched the rate of inflation at the time the contract was awarded. But with inflation now at 8.5 percent, she is trapped. If she doesn't raise the employees' salaries they will eventually leave. But with only a 2 percent increase in revenue, if she raises their salaries to keep pace with inflation, she will lose money for the length of the contract and may bankrupt her firm. Her best option may be to cancel the government contract – if she legally can – and shift her engineers to supporting a private sector project instead.

Inflation affects her business' performance on multi-year government contracts in several ways:

- An inability to hire and/or retain highly educated and skilled professionals at the contracted labor rates
- Higher attrition rates on the contract
- Lower performance levels and/or not meeting the government's performance expectations due to the inability to hire the best employees due to salary restrictions based on rates
- Overhead increases and a higher cost of doing business

Inflation is hurting her business now. Several employees have already taken higher paying jobs with private sector companies, having asked for increases that are above the rate that she can provide based on the existing contract.

Should she try and persevere, the problems will compound:

- Government schedules for timely completion of projects are impacted by the gap created when one employee leaves as well as the difficulty in hiring the right person for the position.
- When/if schedules are impacted, the government will give the contractor a lower score for her performance, hurting her ability to win future work.

Her story is not unique. Inflation is out of their control but yet is having a huge impact nationwide on those businesses who support our Nation's security but are trapped by the government contracting process.

CHAPTER 1: INFLATION AND THE DEPARTMENT OF DEFENSE

For decades, inflation averaged around 2 percent per year. Since early 2021, however, it has grown to 8-9 percent. The 2021 and 2022 defense budgets were developed before the onset of this rapid inflation and DoD is experiencing a significant loss of buying power as these funds are expended. Similarly, the 2023 budget was submitted to Congress before it was known how high inflation would rise and therefore significantly underestimates the funding requirement for the programs the Department wants implemented. This paper reviews the impacts of inflation on the defense budget and defense industrial base (DIB), provides estimates of specific impacts of inflation, and provides strategies for how Congress can address inflation.

This loss of defense buying power comes at a perilous time. The 2022 National Defense Strategy (NDS), reaffirming the 2018 NDS, highlighted the re-emergence of threats from near peer competitors after decades of focus on terrorism and regional threats. China and Russia were not idle while the U.S. focused on terrorism following the September 11, 2001 attacks. They invested in their own modernization and in their forces. And as they have grown more militarily capable, their aggressiveness has increased, including on vivid display now with Russia's invasion of Ukraine and with China's increased belligerence towards Taiwan as well as its neighbors in the South China Sea.

The NDS pivot requires shifting focus from a largely asymmetric terrorist challenge to the threat from large, technologically advanced states. This requires the U.S. to rapidly modernize capabilities and investment in forces and posture. The Defense Industrial Base (DIB) has stepped up to this challenge, by supporting DoD with accelerated development and the production of new weapons and advanced technology. The bipartisan NDS Commission found that 3-5 percent real growth in defense funding was required to implement this NDS imperative.¹

While this has been the strategy and consensus across two different administrations, the defense budget was not reflecting this recommended level of growth prior to the onset of inflation and is now paradoxically experiencing negative real growth. When combined with the effects from COVID-19, supply chain, and other workforce disruptions, DoD and the DIB are struggling to increase capacity and to achieve the pace of modernization required to maintain our technological advantage over these near peer competitors in order to deter further aggression. Congress has become increasingly concerned about these defense budget shortfalls and their impacts on modernization and the DIB.

WHAT IS INFLATION AND HOW DOES IT IMPACT NATIONAL DEFENSE?

Inflation is the rate at which prices increase and it reflects the buying power of money in an economy. Inflation is a rise in all prices across the board, although the amount of increase will not necessarily be identical for each individual good or service.

How is Inflation Measured?

Inflation is measured using price indexes. Price indexes can be developed for different groups of goods and services. For example, indexes may look at the economy as a whole to measure inflation, all DoD spending to measure overall defense buying power, or DoD procurement to specifically measure the cost increase in acquisition programs. The most common measure of inflation is the Consumer Price Index for all Urban consumers (CPI-U), a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. For about two-thirds of its budget, the DOD uses an index based on Gross Domestic Product (GDP) price changes.

What Happens When Inflation Rises?

The primary impact of unanticipated inflation on DoD is lost buying power. For instance, if a defense budget was appropriated with the intent to fund a certain level of programs and activities and prices rise DoD is forced to scale back these investments

during budget execution. In personnel accounts, as inflation erodes the value of the military compensation package, recruitment and retention suffer while the costs of housing, food, and change of station moves goes up. In operating accounts, readiness is reduced as fuel and other costs rise resulting in reduced training and equipment maintenance. In acquisition and research accounts, inflation reduces the quantities of weapons systems, technologies, and protective equipment upon which our service members rely can be bought as per unit cost increases.

How Are Defense Firms Affected?

Inflation hurts businesses across the economy as input costs rise and margins are reduced, but the DIB is one of the most heavily affected sectors because of the rigid, long-lasting contract structure in defense procurement. Commercial firms can respond to increasing input prices by raising the prices of their products, whereas defense firms are often locked into prices for several years. Defense firms are seeing their input costs rise now but, depending on contract types, have a limited ability to change the price charged to the government. This can particularly impact small firms that may not have the reserves necessary to survive the lengthy process of adjusting a price or to absorb losses for the life of the contract.

¹ Chapter 1 (usip.org) Providing for the Common Defense The Assessment and Recommendations of the National Defense Strategy Commission. Accessed on September 2, 2022

MEASURING THE IMPACT OF INFLATION ON DEFENSE

Since January 2021, the sharp rise in unexpected inflation has resulted in a significant loss of defense buying power. This chapter explains the trends in inflation and how this impacts defense buying power.

The most common measure of inflation is the Consumer Price Index for all Urban consumers (CPI-U), a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. This index is calculated by The Bureau of Labor Statistics (BLS).

Over the past several decades, inflation has averaged a little over 2 percent per year. Yet from January 2021, it accelerated to 9.1 percent in June 2022 and 8.5 percent in July 2022.² This is the highest inflation the U.S. has experienced since the early 1980s. Figure 1 illustrates this sharp increase.

Inflation Increased Sharply in 2021 and 2022.

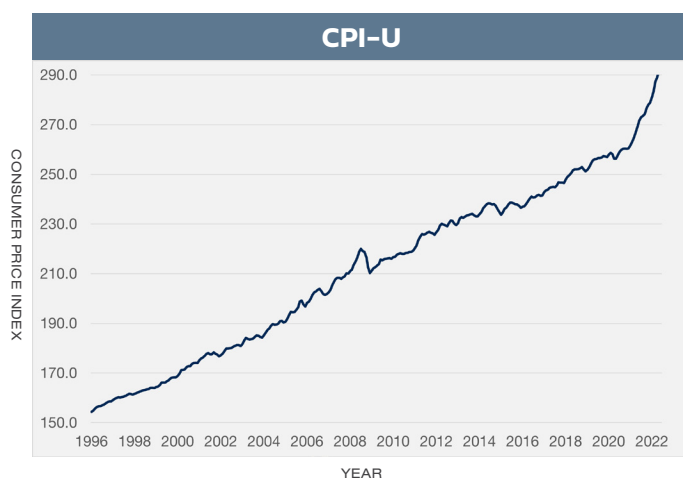


Figure 1: U.S. Rates of Inflation Per CPI-U From 1996-2022

Many experts believe that the June 2022 rate of 9.1 percent represents the peak of inflation and the rate at which prices increase will begin to slow down. Figure 2 provides quarterly forecasts of CPI-U growth from public sources.³ Of the three projections provided, the highest forecasted inflation rate is derived from the private sector group Trading Economics. The middle estimate is from the inter-governmental Organization for Economic Cooperation and Development (OECD). The lowest inflation forecast is from the Philadelphia Federal Reserve Bank's Survey of Professional Forecasters. Because of the prominence of the OECD and its forecast falls in the middle of the range, the OECD forecast inflation is used in this report for estimating impacts.

Experts Forecast Inflation Will Fall To 3% By 2024.

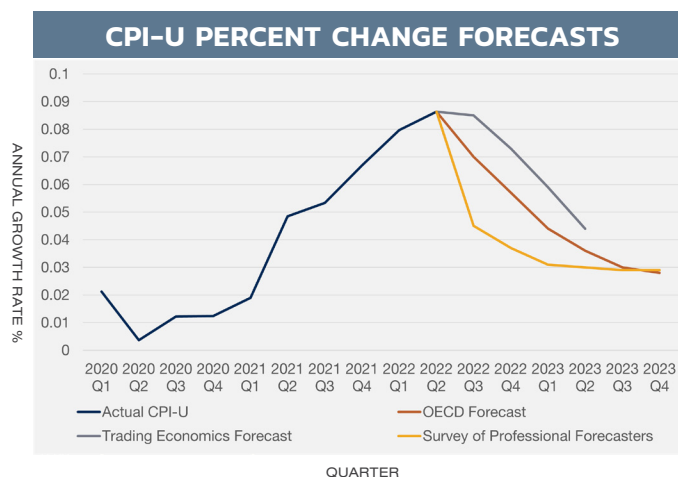


Figure 2: Actual and Forecasted Inflation, Annual Growth Rate (%), Q1 2020 – Q4 2023

ARE THE FORECASTS RIGHT?

Most experts believe that inflation has peaked. They expect quarterly inflation to fall to 5 – 6 percent by the end of calendar year 2022 and to fall to 3 percent by the end of 2023. This is a very important assumption for estimating the impacts on defense buying power. If these forecasts are incorrect, and inflation continues at higher rates through the rest of 2022 and 2023, the estimates of inflationary costs to defense in this report will be too low.

In fact, **the forecasts are already underestimating actual inflation.** The OECD forecast used to create the estimates in this report was produced in early 2022. The second quarter of calendar year 2022 is its first forecast quarter and we now have actual data on inflation in the second quarter. The OECD forecast was 7.6 percent for the quarter and actual inflation was 8.6 percent.

For transparency and independence, this report has used these public forecasts, but it means that the estimates presented likely underestimate the harmful defense impacts of inflation.

The Executive Branch begins developing the defense budget well before the budget is submitted to Congress, enacted into an appropriation, and executed. For example, the Fiscal Year (FY) 2022 budget was submitted to Congress in the spring of 2021 and, although adjustments were made immediately before submission, it was developed within the Executive Branch largely in 2020. The most recent complete actual inflation rate available at the time the budget was developed was for calendar year 2019, which was 1.8 percent. The budget is

² The change in the CPI-U from June 2022 compared to June 2021 and July 2022 compared to July 2021.

³ Each quarter compared to the same quarter one year earlier. These sources were accessed on August 8, 2022, from: Forecast Inflation Rate (tradingeconomics.com), Prices - Inflation forecast - OECD Data Source: OECD (2022), Inflation forecast (indicator). doi: 10.1787/598f4aa4-en (Accessed on 02 September 2022), and Second Quarter 2022 Survey of Professional Forecasters (philadelphiafed.org).

developed using estimates of future inflation rates based on these prior year actual rates along with macroeconomic assumptions.

Figure 3 illustrates the forecasted inflation rate for each budget cycle versus the actual inflation rate realized when the budget was executed.⁴ From 1996 to 2020, the average inflation rate assumed in budget development and the average realized inflation rate were both just over 2 percent.⁵ **For 2021, the projected rate was 2.3 percent and the actual rate was 4.7 percent.⁶ In 2022, the projected rate was 2.1 percent and the actual rate is currently over eight percent.⁷** The cumulative or compounded impact of these differences is about 9 percentage points. The assumed rate for (calendar year) 2023 used for development of the FY 2023 budget is 2.3 percent, lower than all of the forecasts provided in the chart above.⁸

Actual Inflation was Dramatically Higher than what Recent Defense Budgets Assumed.

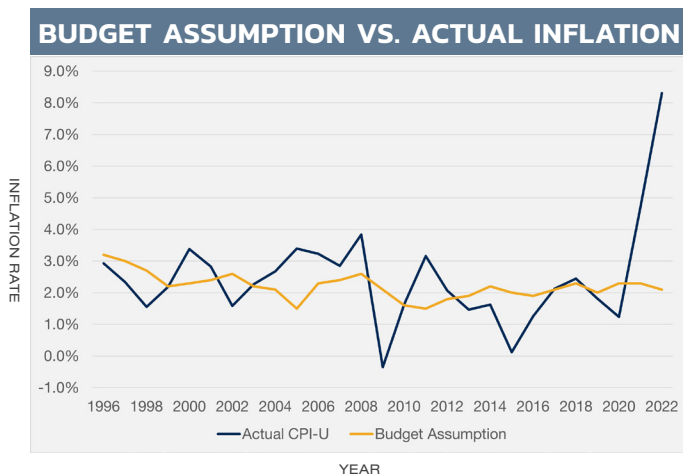


Figure 3: Forecasted Inflation Rate Per Budget Cycle, 1996 – 2022

Budgets are developed by taking the prior year’s budget, estimating price changes – usually inflationary increases – using guidance price escalation rates, and then considering program increases and decreases; some areas obtain increased funding, some less, and some stay roughly the same. At the end of this process, the budget can be compared to the prior year’s budget in aggregate to assess the net change in program funding by comparing price growth (inflation) to what is left over (program growth).

Table 1 provides this comparison for the Fiscal Year (FY) 2021 and FY 2022 budgets using two different scenarios. The first row shows what was expected when the budget was developed, i.e., when Congress appropriated the FY 2022 budget. The second row explains what is actually happening now based on current actual and forecasted inflation. It shows the compounded price increases

from FY 2021 and FY 2022 that are reducing the spending power of the FY 2022 budget.

Unexpected Inflation Eroded FY 2022 Defense Programs by \$33.3 Billion.

	FY 2021 Enacted	Price Growth	Program Growth	FY 2022 Enacted
Expectation when Budget Enacted	\$703.7B	\$16.4B	\$22.2B	\$742.3B
Actual Price Increases from FY 2021 and FY 2022	\$703.7B	\$49.7B	-\$11.1B	\$742.3B

Table 1: Fiscal Year (FY) 2021 and FY 2022 Budget Scenario Comparison

When Congress enacted the FY 2022 budget, it was expected, based on inflation when that budget was developed, to provide over \$22 billion in new net program growth – a real buying power increase. In reality, inflation has eroded all of that buying power and the FY 2022 budget will buy less defense capability than the FY 2021 budget was expected to buy.

This illustrates the two primary impacts of unexpected inflation:

- Properly Pricing Future Budgets**

If the extent of inflation had been known at the time of the development of the FY 2022 budget and the desire had been to fund \$22 billion in program growth, then the budget total would have been \$776 billion (FY 2021 enacted budget plus \$50 billion in price growth plus \$22 billion in program growth). DoD will experience a similar challenge in FY 2023 and the next chapter titled “Pricing the FY 2023 Budget” estimates an updated requirement for the FY 2023 budget based on current and forecasted inflation.
- Execution Challenges Today**

DoD is paying for capability today from current and prior budgets (spending outlays occur over many years once a budget is enacted, DoD is outlaying the FY 2021, FY 2022, and several prior years’ budgets now). These budgets cannot have their total funding amounts retroactively increased so that they are properly priced, so the loss of buying power results in less defense capability being purchased. Chapter 3: Today’s Execution Challenges estimates the impact of this current execution challenge.

4 Based on calendar years. Each comparison is the forecast for the (calendar-based) budget year in that year’s President’s Budget submission compared to the actual inflation rate that year, e.g., the 2021 forecast in the 2021 President’s Budget development cycle compared to the actual 2021 inflation rate.

5 Calculated as the simple average of the forecasted inflation rate from each year’s President’s Budget Analytic Perspectives volume compared to the simple average of the annual CPI-U growth.

6 PB21 Analytic Perspectives volume compared to CPI-U growth from 2020 to 2021.

7 PB22 Analytic Perspectives volume compared to CPI-U growth from 2021 to 2022.

8 PB23 Analytic Perspectives volume.

CHAPTER 2: FY 2023 BUDGET CHALLENGES

DoD repriced the FY 2023 budget before submitting it to Congress to take greater account of inflation. But DoD was constrained to use the Executive Branch guidance rates provided at that time. These rates do not reflect the level of inflation currently being experienced. This chapter reviews the budget development process, estimates an updated FY 2023 budget requirement based on current inflation experience and projections, and provides budget and policy recommendations to Congress for the FY 2023 budget.

BUDGET FORMULATION PROCESS

The Executive Branch forecasts of inflation (CPI-U) are used to develop five specific price escalation guidance rates for DoD: military pay, civilian pay, fuel, medical, and other purchases. The basis for these guidance rates includes:⁹

- **Military pay:** Uses the Employment Cost Index (ECI) for wages and salaries published by the BLS, of the Department of Labor, adjusted for administration policy recommendations as prescribed in Title 37 U.S.C. Section 1009.
- **Civilian pay:** Uses the ECI, adjusted for administration policy recommendations, as prescribed in Title 5 U.S.C. Section 5303.
- **Fuel:** Uses projections of the Energy Information Administration Refiner Acquisition Cost. This is the oil refiners' average price for crude oil.
- **Medical:** Uses the projected BLS CPI for All Urban Consumers (CPI-U) Medical price index.
- **Other purchases:** Includes all purchases other than the four categories listed above. Uses projected values for Gross Domestic Product (GDP) prices changes from the Bureau of Economic Analysis (BAE). For this report, we use the Gross Domestic Product Chained-type Price Index (GDPCTPI).¹⁰

DoD then uses these rates to account for price growth in budget formulation. It is important to note that the total budget of DoD is not necessarily related to the prior year's budget growth according to the guidance rates for each sub account. The total budget is a policy choice, and may be larger than price growth (allowing for net program growth – real increases in buying power) or lower than price growth (imposing net program reductions to account for the loss in buying power). The price escalation rates ensure that each account funds inflation before determining if there is sufficient funding for program increases.

Almost two-thirds of the defense budget is for “other purchases,” for which we use the forecasted GDPCTPI growth rate. The chart below compares the CPI-U and GDPCTPI over the last 10 years. Overall the measures have moved very closely. During

the recent surge, the GDPCTPI has grown at a slightly lower rate than the CPI, but GDPCTPI reporting has a longer lag than CPI and is only reported quarterly.

GDPCTPI Tracks Closely To The Public CPI-U Inflation Rate.

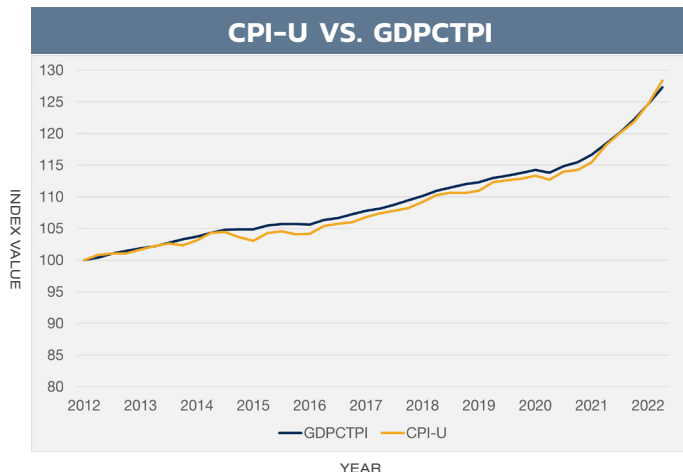


Figure 4: CPI-U vs. GDPCTPI From 2012-2022

These rates, and how the forecasts of them change over time, can be seen by comparing predicted versus actual rates over time as was done with the CPI-U above. The chart below compares the realized GDPCTPI growth rate to the other purchases guidance rate used in budget development.¹¹

In FY21 And FY22, The Budgeted Inflation Rate Was Well Below The Actual Inflation Rate.

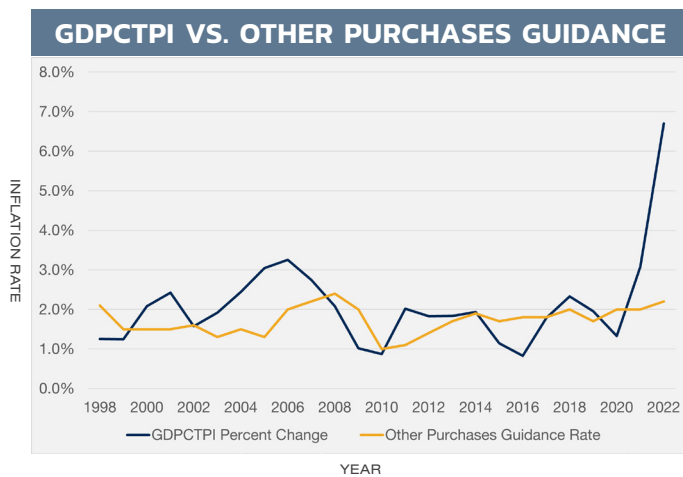


Figure 5: GDPCTPI vs Other Purchases Guidance, 1998-2022

9 This description adapted from Stanley Horowitz, Alexander Gallo, Daniel Levine, Robert Shue, and Robert Thomas, *The Use of Inflation Indexes in the Department of Defense*, May 2012, IDA Paper P-4707.

10 Other BEA GDP price indices provide similar results.

11 Only one quarter was available for FY 2022, so the estimate of actual GDCTPI growth is first quarter of FY 2022 compared to the first quarter of FY 2021. All other years are computed as the fiscal year averages across quarters.

Another rate worth reviewing is fuel. Although a relatively small fraction of the budget, this is the most volatile rate by far and can cause some of the earliest and most visible problems in an inflationary period. Fuel prices have swung more than 5 percent from year to year 27 of the last 32 years.¹² Figure 6 shows fuel prices over time.¹³

Fuel Prices Vary More Than Most Items.

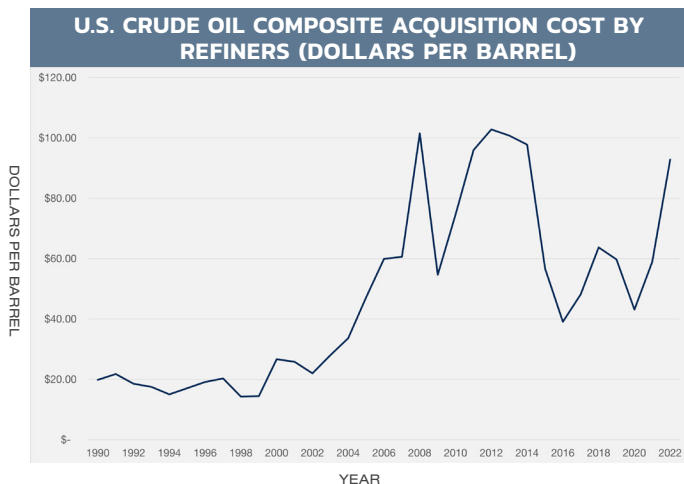


Figure 6: U.S. Crude Oil Composite Acquisition Cost by Refiners (Dollars per Barrel)

Not surprisingly, this is one of the hardest rates to accurately predict. Figure 7 illustrates the fuel price escalation guidance for the year each budget was developed compared to the actual change in fuel prices that occurred when the year was being executed.

As A Result, Budgeted Fuel Prices Differ From The Actual Price On A Regular Basis.

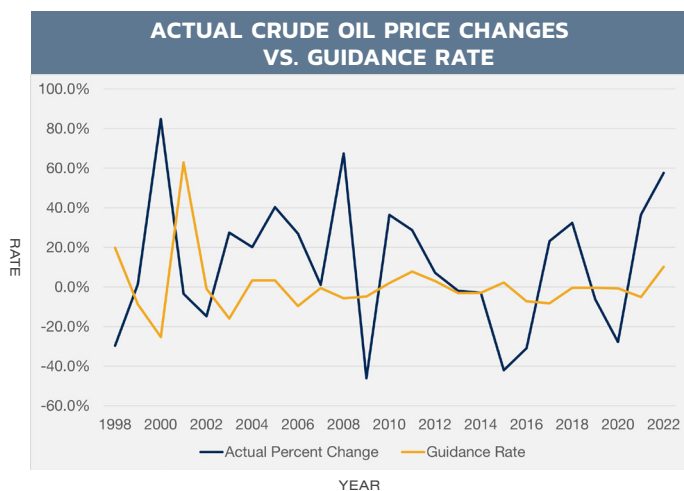


Figure 7: Actual Crude Oil Price Changes vs. Guidance Rate

Military and civilian pay raises are not based on inflation or projections but on prior year actual changes in compensation for private sector workers (the Employment Cost Index or ECI). By statute the default is to match the military pay raise to the ECI and the civilian pay raise to ECI minus 0.5 percentage points. Civilian pay can also be increased through changes in locality pay. For policy reasons the President can propose, and Congress can enact changes different than this model and they sometimes do. Once a pay raise has been set, the relevant defense budget accounts can be appropriately priced and the account will be properly funded during execution. It is important to note, however, that policy decisions can have programmatic impacts. If the value of military compensation declines, then recruiting and retention can suffer reducing force levels and readiness.

Military and Civilian Pay Raises are Linked to Changes in Private Sector Pay

Prior year ECI	3.1%	3.0%	2.7%	4.6%
	January 2020	January 2021	January 2022	January 2023
Military Pay Raise	3.1%	3.0%	2.7%	4.6% proposed
Civilian Pay Raise	3.1%	1.0%	2.7%	4.6% proposed

Table 2: Fiscal Year (FY) 2021 and FY 2022 Budget Scenario Comparison¹⁴

There is one area in military compensation that is directly affected by inflation and that is allowances, particularly the Basic Allowance for Subsistence and Basic Allowance for Housing. Historically the military has provided food and housing for its personnel. So when it does not provide them housing it provides an allowance, so they can rent housing in the private sector. This can be a significant portion of a members pay. These allowances are adjusted for changes in the cost of food or housing. But if there is a significant time lag between a spike in housing costs and the matching increase in the allowance as is happening now, then servicemembers who are looking for a place to rent will find their allowance is inadequate for the market they face.

The final category is health. Historically this has been a challenging growth area for DoD with a history of cost growth crowding out program growth for modernization and other priorities. Healthcare cost increases have contributed to the loss of buying power in this inflationary period, but have not been a “headline” driver as with fuel and other purchases. But this may be changing. In the most recent two CPI releases of July and August 2022, the growth rate for the medical care element has increased to as much as 5 percent for medical care services. It is not yet known if healthcare cost growth will increase to the levels we are seeing in other elements of the CPI and that we have seen historically for healthcare costs. Our forecasts below include an increasing growth rate for healthcare costs.

12 St. Louis Federal Reserve archive of refiners acquisition cost. Downloaded on August 7, 2022.

13 Energy Information Agency dataset for U.S. Crude Oil Composite Acquisition Cost by Refiners (Dollars per Barrel), downloaded July 19, 2022.

14 DoD FY2022 Greenbook

FORECASTING PRICE ESCALATION RATES

To develop an estimate of the FY 2023 budget requirement, the price escalation rates must be forecast for the remainder of FY 2022 and for FY 2023. As stated above, the OECD forecast for CPI-U is used as the basis to create the forecasts in this report (except for fuel).

For other purchases, which make up about two-thirds of the defense budget, we regressed the GDPCTPI on CPI-U for the last 10 years and then created predicted GDPCTPI index values using the OECD forecasted CPI-U values. The table below provides the original guidance (at time of budget development), the FY 2023 budget cycle revision used by DoD to update the FY 2023 budget requirement, and the current estimates.¹⁵

Other Purchases (GDPCTPI)	FY 2021	FY 2022	FY 2023	Compound Rate
Guidance During Formulation	2.0%	1.8%	2.2%	6.1%
FY 2023 Updated Guidance	3.1%	3.9%	2.2%	9.5%
Current Actual and Forecasted	3.1%	7.0%	4.5%	15.2%

Table 3: FY 2023 Budget Cycle Revision As Used By DoD

For fuel, the Department of Energy, Energy Information Agency, has provided updated forecasts that take into account recent inflation. This paper uses those forecasts for fuel. The table below provides the three sets of rates.

Fuel	FY 2021	FY 2022	FY 2023	Compound Rate
Guidance During Formulation	-5.1%	10.1%	-7.5%	-3.4%
FY 2023 Updated Guidance	-14.1%	30.0%	-7.5%	3.3%
Current Actual and Forecasted	36.5%	58.9%	-5.1%	105.9%

Table 4: Refiner Acquisition Cost Fuel Projections: Energy Information Administration

For medical, like GDPCTPI, we regressed the CPI-U Medical index on the CPI-U for the last 10 years and then created a predicted CPI-U Medical index using the OECD predicted values of CPI-U. The table below provides the three sets of rates.

Medical	FY 2021	FY 2022	FY 2023	Compound Rate
Guidance During Formulation	3.9%	3.7%	4.1%	12.2%
FY 2023 Updated Guidance	1.4%	4.2%	4.1%	10.0%
Current Actual and Forecasted	1.4%	4.8%	8.5%	15.3%

Table 5: Projected Medical Inflation Rates: Based on the BLS CPI for All Urban Consumers (CPI-U) Medical Price Index

THE MAGIC OF COMPOUNDING?

Readers of this report with children have probably taught them the “magic of compounding.” Compounded interest can turn a small investment into a large asset over time. **Unfortunately, it also works in reverse. High inflation over three years can have devastating effects on defense buying power.**

From the table above, for the largest portion of the defense budget for other purchases, actual and projected price escalation rates are 3.1 percent for FY 2021 (actual), 7.0 percent for FY

2022 (three quarters of actual and one quarter projected), and 4.5 percent for FY 2023. The compounded rate (three years of continuous growth at the respective rate for each year) is 15.2 percent. This compares to 6.1 percent for the original expectations at budget formulation and 9.5 percent at the updated rates DoD used to reprice the FY 2023 budget. For over \$500 billion of the defense budget that this rate applies to, that is over \$5 billion per percentage point difference.

¹⁵ The rates in Tables 2, 3, and 4 are for outlays. They are converted to Budget Authority rates for use in estimating the FY 2023 budget requirement.

PRICING THE 2023 BUDGET

In May 2022, the DoD responded to a query from Senator Inhofe (OK) and others on inflation.¹⁶ Using the above rates and an approximation of the methodology used by DoD in that letter, the table below provides FY 2023 requirements under different scenarios. The method starts with the FY 2023 submitted budget level, deflates this funding level to FY 2021 by dividing by the guidance rates used to develop the FY 2023 submission, and then re-price the FY 2023 budget multiplying by the new rates.

Scenario	FY 2022 Enacted	Price Change	Program Change	FY 2023 Requirement
Original FY 2023 Budget Requirement Estimate	\$742.3B	\$20.4B	-\$9.7B	\$753.0B
Revised FY 2023 Budget Requirement (actual submission)	\$742.3B	\$40.4B	-\$9.7B	\$773.0B
Requirement to Fund Actual and Projected Inflation on 2021-2023	\$742.3B	\$72.7B	\$0.0B	\$815.0B
Requirement for 3% Real Growth	\$742.3B	\$72.7B	\$24.5B	\$839.5B
Requirement for 5% Real Growth	\$742.3B	\$72.7B	\$40.8B	\$855.8B

Table 6: FY 2023 Projected Requirements Based on DoD Budget Estimate Calculations

The first two rows describe the expectations when the budget was submitted. The Executive Branch originally built the budget to \$753 billion. In aggregate, this would have meant about a \$10 billion net decline in purchasing power. Before submission, DoD repriced the budget using the latest rates from OMB. This resulted in a \$20 billion increase to cover inflation as it was understood at that point from 2021 to 2023. As previously discussed, the guidance rates that DoD was required to use have since proven to significantly underestimate inflation.

The last three rows of Table 6 provide estimates of the FY 2023 budget requirement depending on the intended policy of Congress. First (the third row) is the estimated requirement to fully fund inflation and provide the same buying power Congress intended for the FY 2022 budget.¹⁷ The next scenario includes the full requirement for inflation and adds 3 percent real growth to the DoD budget.

The final row includes the full requirement for inflation and adds 5 percent real growth to the DoD budget.

This repricing also impacts future budgets beyond FY 2023. The FY 2024 to FY 2028 Future Years Defense Program (FYDP) will face similar challenges. Like FY 2023, DoD repriced the future years based on the guidance rates provided to them at that time.

Repricing the FYDP using the rates from above requires about a \$50 billion increase in FY 2024 and just over \$250 billion across the FYDP.¹⁸

RECOMMENDATIONS FOR CONGRESS

It will take several years and several authorization and appropriation cycles to learn the full impacts of inflation, ensure that effective implementation of the NDS is maintained, and rebuild the strength of the DIB. With respect to the FY 2023 budget, we identified two key actions for the 2023 cycle to stop the immediate damage occurring and begin recovering.

Restore Buying Power in 2023 Budget

The 2023 budget submission significantly underpriced defense programs. **An increase of at least \$42 billion is required solely to maintain buying power in the FY 2023 defense budget.** Several congressional defense committees have included increases in this range, but it must be recognized that this increase simply maintains status quo buying power and that any net increases in programmatic funding desired by Congress must come in addition to this increase.

Minimize Harm from a Continuing Resolution

It is likely that DoD will begin FY 2023 on a Continuing Resolution (CR). Recent CRs restrict spending to the level of spending appropriated the prior year. This is harmful to national security in normal periods and would be catastrophic in a high inflationary period like this. An unadjusted CR would hold spending to the FY 2022 level being executed now, which was not priced to the actual inflation occurring in 2022. **If this were to happen, DoD would lose about \$6 billion in buying power every month on the CR as it endures the compounded effect of three years of surging inflation.¹⁹**

To minimize harm, Congress should adjust any CR for inflation. This could be done multiple ways.²⁰ Furthermore, CRs do not allow for new starts or procurement quantity changes. This creates challenges in normal circumstances and adds another layer of delay and lost buying power in this inflationary period. To minimize this disruption to mission, any CR used in FY 2023 should allow new starts and quantity increases where bipartisan support exists.

16 DoD Response to Inhofe Letter. Accessed on September 2, 2022: <https://www.inhofe.senate.gov/imo/media/doc/0502.22dodresponsetoinhoferogersinflationletter.pdf>

17 This buying power was not achieved in FY 2022 because of the surge in inflation.

18 The FY 2024 increase is larger than the \$42 billion increase in FY 2023 because the OECD forecast of inflation still has some modest higher than normal inflation at the start of FY 2024. We assume that inflation returns to normal levels by the end of FY 2024. The increases for FY 2025 to FY 2028 are simply the \$50 billion increase for FY 2024 adjusted for inflation.

19 Computed as the \$72 billion increase from FY 2022 required to maintain buying power divided by 12.

20 For example, the CR could direct that funding be inflated from the FY 2022 appropriation level by the cumulative inflation from FY 2021 to present. Alternatively, a fixed funding level could be applied from an existing Congressional mark or repricing of the budget submission.

CHAPTER 3: TODAY'S EXECUTION CHALLENGES

The last chapter was focused on properly pricing the next (2023) budget. The focus was on Budget Authority (BA) provided by Congress in the next appropriation bill. The focus in this chapter is on outlays. Outlays are the amount of money DoD actually spends in a given year. Prior year budgets such as the 2021 and 2022 budgets, are being spent today as outlays and were developed before this increase in inflation was recognized.

For example, there are acquisition contracts in place today from up to eight years ago: procurement funding is available for obligation for three years and then for outlays in support of those obligations another five years. **These contracts are experiencing the inflation of today, but were priced in budgets developed prior to the onset of high inflation. This is the immediate problem DoD faces today.** For fixed price contracts, this inflationary impact is being experienced mostly by contractors. For other contract types, the primary burden falls on the government. But in either case our national defense suffers from the cost overruns, schedule delays or reduced quantities that will inevitably result. If firms leave the DIB and competition is reduced, a temporary problem will become permanent.

Table 7 provides the DoD estimate of outlays by account that was provided with the FY 2023 budget submission. For simplicity, accounts are grouped into Operations and Sustainment (O&S), which focus on current operations and readiness of the force, and Modernization, which includes the research and procurement investments made by DoD for future capabilities.²¹

	FY 2021	FY 2022	FY 2023
Operations and Sustainment (O&S)			
Military Personnel	\$172.6B	\$181.2B	\$185.1B
Operations and Maintenance	\$286.2B	\$313.5B	\$307.2B
Sub-Total O&S	\$458.8B	\$494.7B	\$492.3B
Modernization			
Procurement	\$141.4B	\$136.0B	\$141.6B
Research, Development, Test and Evaluation	\$105.7B	\$116.0B	\$120.9B
Military Construction and Other Accounts	\$11.6B	\$20.6B	\$10.0B
Sub-Total Modernization	\$258.7B	\$272.6B	\$272.5B
Total Defense Outlays	\$717.5B	\$767.3B	\$764.8B

Table 7: DoD Estimates of Outlays

²¹ O&S includes the Military Personnel (MILPERS) accounts and the Operations and Maintenance (O&M) accounts. Modernization includes the Procurement accounts and the Research, Development, Test, and Evaluation (RDT&E) accounts. For simplicity, Military Construction and other small accounts are included in the Modernization category.

EXECUTION SHORTFALL

To estimate the shortfall being experienced in DoD this fiscal year, we estimated the funding level that would be required to fund the original outlay estimate at current and projected price growth. In other words, if the (pre-inflation) expectation had been that a program would spend \$100 million and there was 10 percent unplanned inflation, then the program would require \$110 million to achieve the same purchases. Table 8 shows the increased amounts (e.g., the \$10 million difference in the simple example) that represent the lost buying power currently occurring in the defense budget.

	FY 2021	FY 2022	FY 2023
Operations and Sustainment	\$5.3B	\$27.3B	\$13.2B
Modernization	\$2.5B	\$15.9B	\$14.9B
Total	\$7.8B	\$43.2B	\$28.1B

Table 8: Funding Totals by Inflationary Opportunity Costs: FY 2021 to FY 2023

Over the course of FY 2021 and FY 2022, DoD will lose about \$50 billion in buying power it had expected to use over those two years. The FY 2022 loss alone is larger than DoD will spend on the Army and Air National Guard this year.

To avoid double counting inflationary impacts from the last chapter and this chapter, it is assumed here that the FY 2023 appropriation bill is properly priced and, thus, inflation is fully funded for its outlays. Since the FY 2023 budget provides much of the FY 2023 outlays, the FY 2023 column in Table 8 is smaller since it only includes inflationary impacts for prior year budgets outlayed in FY 2023.

“ OVER THE COURSE OF FY 2021 AND FY 2022, DOD WILL LOSE ABOUT \$50 BILLION IN BUYING POWER IT HAD EXPECTED TO USE OVER THOSE TWO YEARS. THE FY 2022 LOSS ALONE IS LARGER THAN DOD WILL SPEND ON THE ARMY GUARD AND AIR NATIONAL GUARD THIS YEAR. ”

The cumulative impact from FY2021 to FY2023 execution loss is \$79 billion from Table 8 above. To properly price the FY2023 budget to sustain FY 2022 levels is \$42 billion as described in the last chapter.

WHO EXPERIENCES THE \$50 BILLION LOSS?

The impacts of this lost buying power for FY 2021 and FY 2022 outlays are widespread and will take years to fully understand. Some impacts are immediately visible, such as fuel price increases. DoD has been realigning funding in the budget to cover fuel. Other impacts are less immediately visible.

The total \$50 billion impact is split between DoD, our service members, and contractors that provide goods and services to DoD. For contractors on fixed price contracts, the impact is primarily to the companies. These companies have experienced an increase in their input costs while the price they are paid for their products is fixed. This “squeeze” can be particularly damaging to small businesses that do not have the resources to cover these losses until contracts can be repriced. This harm will cause some innovative small business developing new technologies for national security to fail or to leave the defense sector to focus on more flexible commercial markets where product prices can adjust as markets conditions change.

Another group impacted is military service members, as the value of their compensation erodes. This report does not estimate a new pay raise amount, so lost buying power of pay is not included in the amount. But housing allowances, subsistence allowances, and other benefits are included.

DoD impacts include the fuel example above and a myriad of other impacts across the defense budget. Training will be delayed, reduced in scale, or cancelled. Maintenance on equipment and facilities faces delays as the cost of parts increases but available funding is constant. Some of this can be easily measured and tracked, while other losses will be hidden and the full impact will not be realized for years to come.

Warning areas to watch out for include: firms leaving the DIB, reductions in training, reduced equipment purchases, lower equipment readiness ratings and fewer spare parts on hand, and reduced invest in the current operations and posture required to deter near peer competitors.

This is a cumulative \$120 billion, or over a \$110 billion shortfall if you accept the Administration’s FY 2023 proposal for an estimated \$9.7 billion in program reductions, as seen in Table 6.

RECOMMENDATIONS FOR CONGRESS

The execution challenge estimated in this chapter is impacting DoD, our service members, and the DIB today. To begin mitigating the harm these inflationary costs are having on DoD and the DIB, NDIA offers three recommendations to Congress.

Fix Acquisition Programs

Much of the \$50 billion inflationary cost for FY 2021 and FY 2022 identified above concerns outlays for payments on contracts. Adding this new cost to the existing challenges from COVID and the supply chain crisis provides another staggering blow to the DIB and risks slowing modernization as DoD focuses on maintaining overmatch against near peer adversaries. New contracts will be negotiated taking into account recent inflation, but acquisition contracts being executed now were negotiated before the current inflation was known. Relief should be established for existing contracts.

Congress should direct that contract prices are adjusted for inflation and continue to do so until inflation returns to manageable levels. This may be implemented through a Class Deviation or other mechanism. It is important that this be executed as quickly as possible and as uniformly and fairly as possible. To help ensure this, Congress should direct that this relief be applied to contracts as a group and be done expeditiously. It should apply to all contracts that are not already designed to adjust for inflation.

Companies should also be directed to pass the increases down to subcontractors at equivalent rates. Although this can be complex, this was undertaken during the COVID-19 pandemic and those processes may be helpful to inform this adjustment. COVID-19 benefits such as accelerated payments and the section 3610 relief of the CARES Act for paid leave both required step down procedures to subcontractors. This will generate a funding requirement that must be determined (see the following recommendation on data collection). Congress could authorize the use of FY 2023 appropriated funding to cover inflationary cost increases on prior year contracts executing now.

Fix Fuel Funding

As discussed earlier, fuel price swings have been a major challenge to DoD even in years without rapid inflation. DoD faces both an acute and long-term challenge with fuel funding. NDIA recommends structural changes to fuel funding to help mitigate this challenge.

Although fuel is purchased in a revolving fund that provides more flexibility than traditional appropriations, it does not receive the flexibility of some other highly volatile accounts such as the foreign currency fluctuations account used to insulate operating accounts from changes in foreign exchange rates. NDIA recommends Congress direct structural changes to fuel funding to help mitigate this challenge.

Enhance Data Reporting

This high inflation period will create challenges for years to come. The recommendations in the previous chapter for pricing the FY 2023 budget and CR begin to correct the loss of buying power in the future. But the execution challenge described in this

chapter is only partially addressed by the above recommendations. Indexing contracts to inflation will allow for price adjustments to individual contracts, but the available funding for outlays is fixed. The loss of buying power remains.

Congress will require data on these impacts to begin systematically correcting for this buying power loss. Congress should direct an assessment by account, of the impacts of FY 2021 to FY 2023 inflation on outlays. For personnel accounts, this will include the erosion of compensation that service members are experiencing. For readiness accounts, this will include reduced training, degraded equipment readiness, reduced operations, and so on. For modernization accounts, this will include reduced quantities purchased, DIB impacts, reduced research and development levels of effort, etc. The impacts of inflation are distributed across the entire defense enterprise and no single office directly experiences all of the impacts. A review therefore must extend across the Services,

service members, and the DIB to understand and measure the full impact of inflation.

Contract modifications resulting from the recommendation above should be identified and there should be regular progress reports that include the number and value of contracts indexed, the total cost of the adjustments by appropriation account to date, and forecasts of future adjustments using updated guidance rates. And, if these diverge significantly from realized inflation experience, alternative forecasts using a range of publicly available inflation assumptions should be calculated.

Maintaining modernization momentum and recovering from this inflationary period will be a multiyear process. This process will proceed more efficiently and effectively if Congress recognizes the magnitude and time required now, and plans accordingly with data collection and planning for systematic recovery.

CHAPTER 4: ADDITIONAL INFLATION IMPACTS

The previous two chapters used existing Executive Branch processes to provide estimates of the lost buying power being experienced by DoD. In reality, the loss of buying power is likely higher than these processes recognize. There are several key reasons for this.

PROCUREMENT PROGRAM INFLATION

The Office of Management and Budget (OMB) and DoD have long recognized that defense expenditures are not distributed across goods and services the same way that they are distributed across average consumers. This is why the GDPCTPI is used instead of the CPI-U for two-thirds of the defense budget. But there are additional differences that are not taken into account in the Executive Branch processes identified above.

The price growth of acquisition programs has been studied in recent years finding, at times, significant divergence from general inflation (either CPI or GDPCTPI). There are many reasons for this, including greater reliance on rare metals and supplies for military systems than the general economy.²²

For aircraft systems, research has found that annual price increases can exceed general inflation for procurement by 1.7 percentage points (i.e., if general inflation was 2.1 percent then the actual price increases experienced by the program were 3.8 percent).²³ Similar patterns were found in ground vehicle programs.²⁴ This has been a longstanding challenge in acquisition programs that will likely be exacerbated over the next few years as high inflation and supply chain disruptions disproportionately impact acquisition programs. **An additional 1.7 percent of inflationary costs for procurement programs equates to \$2.5 billion in lost buying power not accounted for in the estimates of this report.**

SPENDING PATTERNS ACROSS A YEAR

An implicit assumption in the Executive Branch process is that spending within a year occurs evenly throughout the year. The reality is that spending in the first quarter of a year tends to be lower than average and accelerates through the year with the largest share of spending occurring in the fourth quarter. One of the main reasons for this is the frequent use of Continuing Resolutions (CR) by the Congress. For FY 2022, for example, the appropriation bill

was not passed until March 15, 2022 – five and a half months into the fiscal year. DoD was required to obligate money at the FY 2021 appropriation level while under the CR.

Inflation has been rapidly increasing since January 2021. Inflation rates are generally calculated as the average value of the price index within one year compared to the average value of the price index in another year, i.e., it assumes uniform spending across the year. But DoD spends more of its funding at the end of the year when the spending power of each dollar is at its lowest for the year.

In Figure 8, we see how most spending occurs later in a fiscal year and not uniformly throughout the year. Note that the purchasing power of a defense dollar is inversely related to the CPI level, i.e. the higher the CPI is the less a defense dollar can buy. **This “backloaded” spending pattern drives another \$1-2 billion in spending power loss per year unaccounted for in traditional analyses.**

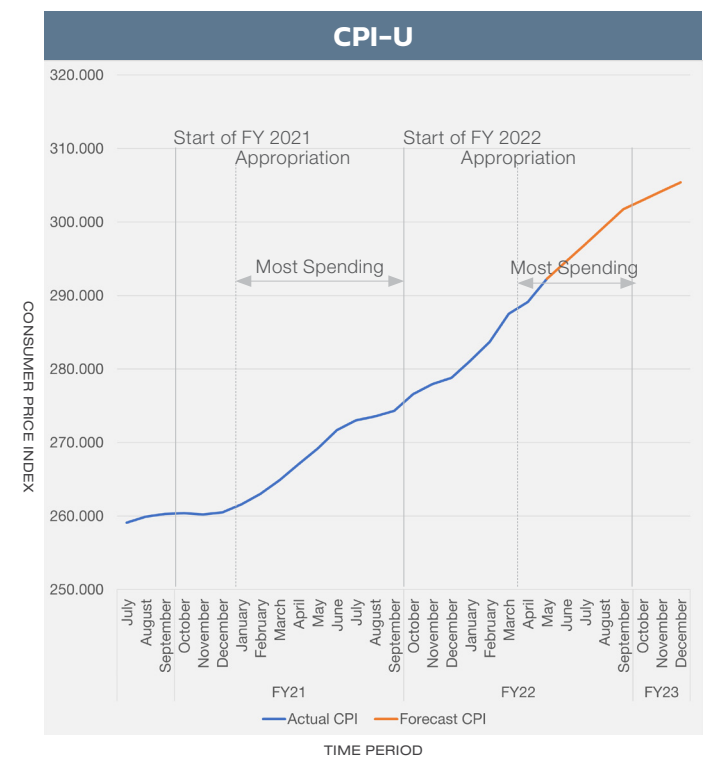


Figure 8: Spending Patterns Over a Fiscal Year: Actual CPI vs. Forecast CPI

22 See Bruce Harmon, Daniel Levine, and Stanley Horowitz, Inflation Adjustments for Defense Acquisition, October 2014, IDA Document D-5112.

23 See Bruce Harmon and Stanley Horowitz, The Role of Inflation and Price Escalation Adjustments in Properly Estimating Program Costs: F-35 Case Study, February 2016, IDA Document D-5489.

24 David Tate, Hedonic Price Indices for Ground Vehicles, May 2015, IDA Document NS D-5467.

FUTURE INFLATION ASSUMPTIONS

As discussed in the “Are the Forecasts Right?” box on Page 8, a key prediction being made by many experts is that inflation has peaked. In the Executive branch process (used in this report) OMB provides inflation guidance to DoD for outlays. DoD then converts these guidance rates into rates for Budget Authority (BA). It does this by weighting the outlay rates for each year by the typical outlay patterns for BA. For example, if a hypothetical FY 2023 appropriation is outlayed 50 percent in its first year, 30 percent in its second year, and 20 percent in its third year then the BA inflator for that account is 50 percent of the FY 2023 forecasted rate, 30 percent of the FY 2024 forecasted rate, and 20 percent of the FY 2025 forecasted rate. In other words, the inflation rates being used to build the budget assume a sizeable portion of the spending will occur in FY 2024 and beyond.

The Executive Branch guidance to DoD in the FY 2023 budget cycle assumed that inflation has fully abated by FY 2023. The chart below provides the GDPCTPI forecast guidance to DoD for the 2023 budget cycle. As can be seen, OMB assumes that inflation has returned to historic levels by FY 2023 (2.2 percent in FY 2023 and 2.0 percent in FY 2024). This is significantly faster than the OECD forecast of inflation abatement.

This report used the OECD forecast of inflation, which still predicts modest yet higher than normal inflation through FY 2023. But as discussed, the OECD is already running over 1 percentage point below actual experience for the second quarter of calendar year 2022. **Adjusting the OECD forecast upward to match actual experience increases the estimated FY 2023 requirement by \$5 billion.**

This particularly impacts Procurement accounts. Procurement funding can be obligated for three years at a time – Operations and Maintenance (O&M) for one year and RDT&E for two years. This means Procurement outlays are typically spread out longer than for shorter lived appropriations. In other words, Procurement funding received a lower price growth rate in the 2023 budget submission because more of it will be outlayed in the years that OMB assumes inflation will have abated. The FY 2023 budget submission used a procurement guidance price escalation rate of 2.5 percent for FY 2022 and 2.0 percent for FY 2023.

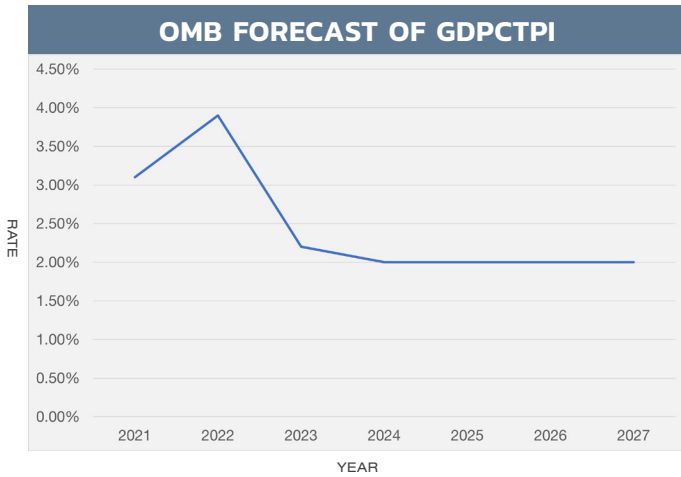


Figure 9: Executive Branch Forecast of GDPCTPI

CHAPTER 5: CONCLUSION

The emergence of significant inflation is a major challenge for DoD and the DIB as the sector recovers from COVID-19 and deals with a concurrent supply chain crisis. This paper provides an assessment of this challenge. Key findings of this report include:

- To maintain a constant level of buying power, the FY 2023 Defense budget needs be \$815 billion, an increase of \$42 billion from the budget submission. This funding level would provide no net real growth in capability.
- FY 2021 and FY 2022 outlays are experiencing \$50 billion in lost buying power. This loss will either appear as reduced quantities and maintenance backlogs or cost overruns and schedule delays. Whether the cost is initially born by DoD or industry will depend on how the contract is written, but left unfunded, the inevitable consequence for national defense is the same. Because of their limited capital, the excess costs will hit small businesses hardest.
- When all impacts are combined (including over \$20 billion in execution impacts for FY 2023), the total inflation loss for FY 2021 to FY 2023 is over \$110 billion.

This significant financial cut to the DIB arrives on the heels of the COVID-19 pandemic and supply chain challenges, adding significant risk to defense modernization as a hedge against potential near peer conflict. Because it is easier and faster to adjust prices in the private sector, if the impact of inflation on contracts is not addressed, firms that have a choice may exit the defense industrial base for the commercial markets and reducing competition and diversity in the DIB.

To protect our current and future national security, NDIA recommends the following:

FY 2023 BUDGET CHALLENGES

- *Restore Buying Power in 2023 Budget:* Congress should add at least \$42 billion to the FY 2023 defense budget to reflect updated inflation information and avoid lost buying power.
- *Minimize Harm from a Continuing Resolution:* If FY 2023 begins on a CR, Congress should adjust this CR for inflation and allow for new starts and procurement quantity changes to avoid creating further program delays.

TODAY'S EXECUTION CHALLENGES

- *Stabilize Acquisition Programs:* Congress should direct that contract prices are adjusted for inflation. Programs that are currently being executed and that were priced prior to the onset of inflation should be adjusted to correct for unexpected inflation. Future contracts should include an automatic inflation adjustment clause.
- *Fix Fuel Funding:* Fuel prices have and will continue to fluctuate significantly and disrupt readiness and training. Congress should revise the fuel working capital fund so it is better able to handle future price shocks.
- *Enhance Data Reporting:* The disruption from the current inflation spike will endure for years after inflation has returned to normal. Congress should direct that appropriate data collection and regular progress reports are undertaken to show where DoD has been able to address the problem (for example, the number and value of contracts indexed and funded to the correct inflation) and what is left to be done (forecasts of future adjustments using updated guidance rates).

A healthy DIB is essential to national defense and maintaining overmatch against near peer adversaries. The inflation crisis is another blow our nation can ill afford the international security environment becoming increasingly dangerous. Decisive action now is essential.

NDIA

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