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How Will Unprecedented Times and Federal Investment Impact Utilities Now and in the Future?

by Wayne Hofmann, Client Funding Director, Wade Trim

While the COVID-19 pandemic has negatively impacted communities worldwide, it also opened the door to significant public investment in infrastructure and economic recovery. The $1.9 trillion American Rescue Plan Act (ARPA) enabled billions of investments in infrastructure and the public appetite for economic stimulus in a crisis led to the passage of the $1.2 trillion Infrastructure Investment and Jobs Act (IIJA). Together, these measures will increase federal investments in local water and sewer projects to unprecedented levels.

As 2022 marks the 50th anniversary of the Clean Water Act, unprecedented change is occurring due to the COVID-19 pandemic, significant federal investment, inflation, and changing labor demographics. What challenges--or opportunities--may be presented by these changes?

Infrastructure Spending

The American Rescue Plan (ARPA) and Infrastructure Investment and Jobs (IIJA) Acts will increase federal investments in water and sewer systems to unprecedented levels over the next several years, providing potential economic relief to thousands of communities across the nation facing compliance challenges. Will these investments be remembered for securing our infrastructure for generations, or as an example of political failings and the adage of "more money, more problems?"

With thousands of press releases issued by legislators and agencies at the Federal and State levels heralding billions of dollars in infrastructure spending, it may be fair to assume the water industry can declare "mission accomplished" in meeting our massive infrastructure needs. However, the opposite is the reality. Of the $1.2 trillion authorized, approximately $60 billion is dedicated to water resources, a paltry 5%. The water industry must continue to fight any perceptions that these investments will meet our long-deferred needs. At the local, state, and federal levels, effective advocacy and communication is still needed to reinforce the value of water and investment at all levels.

The IIJA was unprecedented in some ways, yet its funding for sewer and wastewater treatment pales in comparison to the billions in straight grant funding provided for water pollution control in the late 1970s and early 1980s. Funding increases are much more extraordinary on the drinking water side, with an eight-fold increase authorized through the life of the IIJA.

One must also consider the impact of the ARPA, which provided $350 billion in direct grant assistance to every state, county, and local government in the nation. Using an estimate of 20% of that funding going to water and sewer projects, this would mean an additional $15-20 billion for the water system investments annually through the end of 2026 *(Figure 1)*.

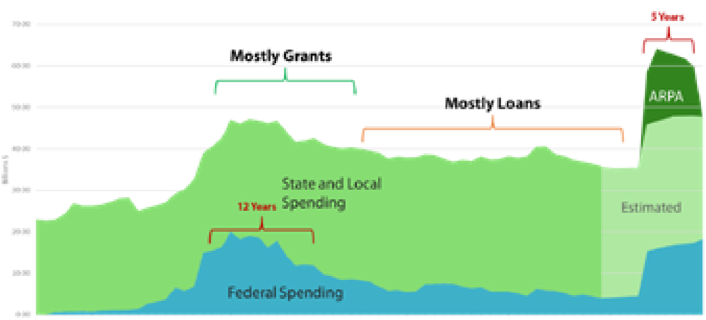

Figure 1: Federal, State and Local Spending on Water/Wastewater Utilities (Source: White House Office of Management and Budget/Congressional Budget Office)

This will result in the largest collective investment in water infrastructure over 5 years in history. While much needed, this will create a stressor on an already hot market for utilities construction and materials.

At the federal level, our industry's voice is still needed to ensure Congress thinks long-term about infrastructure. In the FY 2022 budget, Congress did not appropriate funding for baseline State Revolving Fund (SRF) and several other programs to the full budget authority authorized in the IIJA, while leaving out funding for several water programs altogether. Further, Congress diluted the amount of grant and principal forgiveness funding available through the states by awarding over $800 million in earmarks *(Figure 2)*.

Current markups of the FY 2023 budget bills appear to continue this trend. By appropriating so much funding through earmarks, Congress will create challenges for Ohio EPA addressing its policy objectives. While shorting these programs may be prudent to avoid an overheat of demand, we must advocate for sustained investment beyond the authorizations in the IIJA, which extend through 2026.

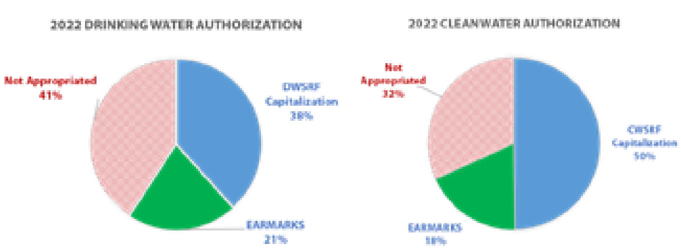

Figure 2: FY 2022 Federal Budget for State Revolving Loan Funds (SOURCE: HR 2471 Consolidated Appropriations Act, 2022)

The expansion of Buy America Build America rules by the Biden Administration to include manufactured components also provides a potential obstacle to the industry. Aside from adding complexity to funding programs that already intimidate some utility managers, the requirements may contribute to domestic inflation of construction materials in the short-term. While the onshoring of manufacturing and production capacity may be a helpful policy, deferral of these requirements would provide time for the industry to effectively incorporate these policies into practice and also reduce inflation pressures.

State and Local Challenges

In total, the IIJA will result in approximately $1.4 billion over the next 5 years, which will be primarily invested through the Clean Water and Drinking Water State Revolving Funds as loans, in addition to funding appropriated each year as part of the federal budget. Like several states that have sought to bolster water and sewer investment with ARPA allocations and enhanced revenues, Ohio used such funding to establish a Wastewater Grants Program with an initial investment of $250 million in 2021.

An increase to principal forgiveness provides an opportunity to assist communities struggling with customer affordability, especially in urban areas. A recent policy change by OEPA, which removed the 10,000-population limit for communities to receive principal forgiveness, will help urban communities attempt to balance compliance obligations with affordability.

The IIJA and ARPA provided visions of free government money to fix most, if not all, infrastructure issues in the eyes of some elected leaders. However, this funding will only provide a short-term boost for capital infrastructure needs and cannot take the place of sustainable ratemaking approaches.

This combined federal and state investment will help many utilities play catch up on major capital improvements and deferred maintenance, but not solve every challenge or compliance issue. Local elected leaders cannot fall into the temptation of reducing or pausing gradual utility rate increases for short-term benefit. It is important to demystify the "black box" of federal and state funding for elected leaders so they can make informed, rational decisions.

While the IIJA, ARPA, and state investments in water and sewer infrastructure provide an excellent opportunity to get utility systems on a more secure footing, they will certainly not secure the future. The industry must continue to communicate the value of water and sewer services, as well as the limitations of infrastructure spending in meeting utility system needs. This will be even more critical as the industry experiences generational turnover and passing of the torch to new leaders.

Inflation and Rate Hikes

All this investment comes at a challenging time of labor shortages and supply bottlenecks. System owners and municipalities have seen their buying power erode at an accelerating rate, giving older professionals in the industry visions of inflation and interest rates from their early career days and younger professionals a scary, new dynamic to consider.

Despite the memories of the late 1970s and early 1980s, there is very little to indicate a return to double digit interest rates is in the cards during the 2020s. The economic picture coming out of the COVID-19 pandemic is not dictated by regional or national developments, but an unprecedented global disruption reflected in unsustainable consumer and producer price index spikes across industries and market segments.

The current spike on construction material prices has no peer in post-World War II history. In May, the Producer Price Index for Construction Materials was 50% higher than the index was in March 2020 *(Figure 3)*. Aside from three relatively brief 10% peaks after tax reforms in 1986, 2003, and 2017, the only similar short-term increase was during the 2008 housing crisis. Such a short-term increase in construction and manufacturing pricing environment is unsustainable in the long-term.

While a complete price collapse to pre-pandemic levels is unlikely, a relative normalization of supply chains and even a mild recession should result in a regression of construction pricing toward the historical trend. Factor in rising interest rates and the supply and demand dynamic should continue to adjust.

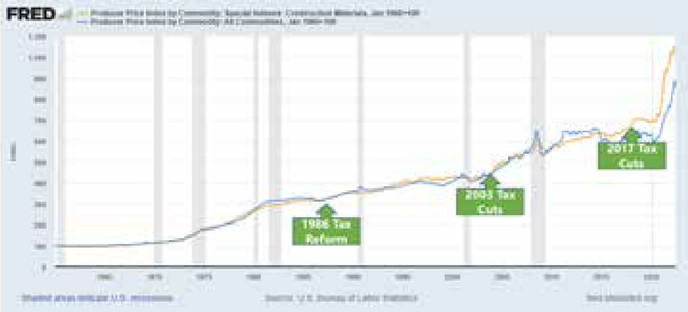

Figure 3: Construction Materials and Producer Price Index from 1960-Present (Source: St. Louis FRED)

Considering the context of the IIJA being passed during the COVID-19 pandemic, many viewed the bill as a stimulus package as opposed to a long-term, sustained investment in the nation's infrastructure. The quick infusion of money from states and the federal government has brought back the phrase "shovel-ready" to our lexicon. A holdover from the stimulus package enacted in the wake of the housing crisis of the late 2000s, it would be folly to use a shovel-ready policy approach in the current economic environment.

Changing interest rates will also impact approaches to funding infrastructure improvements. The low- to no-interest rate environment of the past decade has made bond financing an attractive option to many water and sewer utilities in comparison to State Revolving Funds. However, as rates begin to rise, SRF may become more attractive to finance officers that have been previously wary of the many requirements associated with Federal funding. With a strong increase in capitalization funding, SRF program managers will have more tools to provide competitive financing options with the bond market for years to come.

Demographic Challenges and Opportunities

Although inflation should begin to regulate as supply chains normalize, demographics present a danger for longer-term inflation trends on the construction and manufacturing side. Following a 10-year period where inflation increased by over 100% from 1972-1982, the Consumer Price (CPI) and Producer Price (PPI) Indexes became unchained (*Figure 4)*. This created a period of relatively muted price inflation for producers and the construction industry for 40 years, until the COVID-19 pandemic.

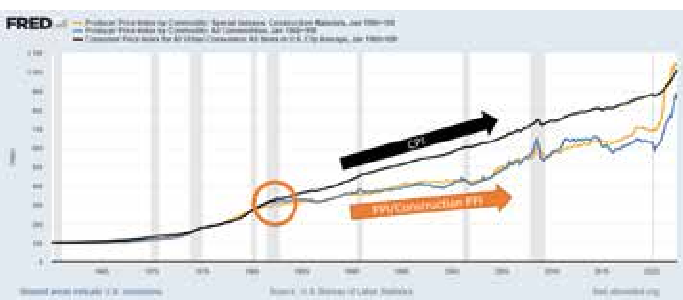

Figure 4: CPI, Construction Materials and PPI from 1960-Present (Source: St. Louis FRED)

In just over two short years, both PPI and Construction Materials prices have made up almost 40 years of price stagnation. While this is not a sustainable path and price will regulate once supply chains stabilize, long-term labor challenges will keep producer and construction material prices higher than the pre-2020 trend.

Following the stagflation and recession of the early 1980s, that decade introduced market shifts due to deregulation, automation, and globalization. While these contributed to lower price inflation for producers and construction materials, unprecedented demographic opportunities also contributed.

After World War II, the United States birth rate increased dramatically, creating the Baby Boomer generation. This was the first time since 1825 that the national birth rate would increase over an extended period, and only followed by a very small and brief increase in the mid-1980s *(Figure 5)*. This significant increase in birth rate resulted in that generation hitting the job market moving into the 1980s. As a result, labor supply flourished. At the same time, immigration also greatly increased, adding even more labor to the economy.

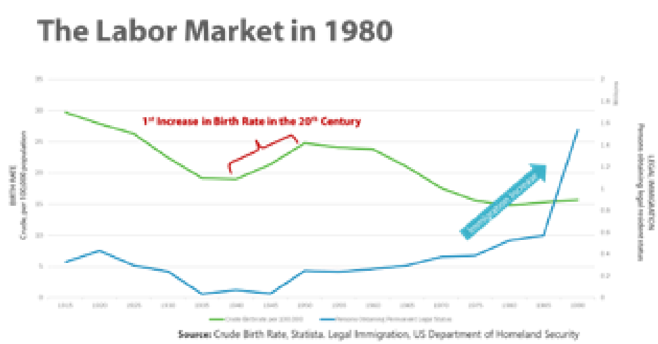

Figure 5: Birth Rate and Legal Immigration 1915-1990 (Source: Statista, Department of Homeland Security)

Today, we are missing those two significant demographic drivers, birth rate and immigration. The birth rate decline since the mid-1990s, which impacted K-12 school and college enrollment over the past 15 years, is now hitting the job market *(Figure 6)*. Retirements among the Baby Boomer generation have accelerated through the COVID-19 pandemic, which not only disrupted labor markets through job loss and turnover, but also resulted in over a quarter million deaths among the working age population.

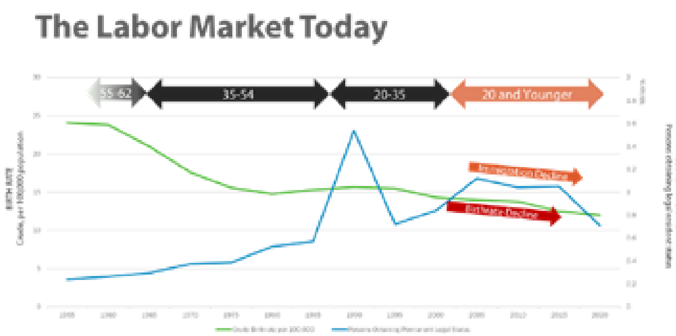

Figure 6: Birth Rate and Legal Immigration 1915-1990 (Source: Statista, Department of Homeland Security)

Opportunities in Unprecedented Times

We must stay optimistic about the future and look for opportunities, despite the challenges of COVID-19 rippling through our economy and the headwinds of inflation. We are finally seeing the federal infrastructure investment sought by the industry for decades, which will help utilities address lead in drinking water and other deferred investment. Technology also continues to advance, providing opportunities to create workforce efficiencies in the face of scarce labor resources.

While other parts of the nation face climate related challenges, Ohio remains a resilient geography that is even gaining recognition as a "climate haven" due to its proximity to the Great Lakes. With a relatively affordable housing and a competitive economic development strategy, the state also is poised to attract more residents and commercial investment. For communities that have had shrinking populations leading to oversized infrastructure systems, this is a prime opportunity for revitalization.