

Alaska Government Finance Officers Association Annual Fall Conference

Hot Topics in the Municipal Bond and Credit Markets

November 14, 2018

Bank of America
Merrill Lynch





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Hot Topics Warm Up Trivia



“I sell bonds. Municipal bonds.”

Introduction

BofA Merrill Lynch Public Finance Investment Banking

- Based in Seattle and leads Pacific Northwest public finance banking coverage
- Covered Alaska since 1997
- Served on financing teams for the following issuers:
 - State of Alaska
 - Alaska Municipal Bond Bank Authority
 - Municipality of Anchorage
 - Alaska Energy Authority
 - Alaska Industrial Development and Export Authority
 - Alaska International Airports System
- Active past AGFOA conference participation:
 - Kodiak (speaking role)
 - Ketchikan (speaking role)
 - Juneau
 - Sitka
 - Anchorage
 - Palmer
- Outside of Alaska, leads public finance coverage of:
 - States of Oregon and Washington
 - Ports of Seattle, Tacoma and Portland
 - Universities of Oregon and Washington
 - Various counties and cities across the Pacific NW region

Eric Whaley

Director

Pacific Northwest Region

Merrill Lynch, Pierce, Fenner & Smith Incorporated

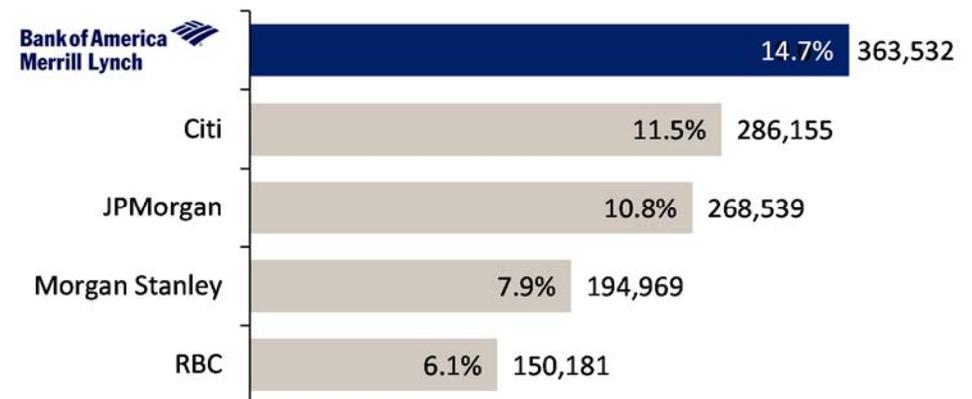
800 Fifth Avenue, 35th Floor

Seattle, WA 98103

T: 206.358.4833

eric.whaley@baml.com

National League Table (All Issues) 2012 – Present⁽¹⁾ (\$ Millions)



(1) Source: Thomson Reuters SDC Platinum as of 11/8/2018.
Figures within bars denotes market share.

Topics for Today

Hot Topics in the Municipal Bond and Credit Markets - 2018

- 1) **The Impact of Tax-Law Changes in Late 2017 on Municipal Issuers in 2018:**
 - Market supply/demand volatility
 - Issuer refunding flexibility
 - Enhanced review of couponing and early call options during pricings

- 2) **Recent Market Volatility and the Impact on Municipal Issuers**

- 3) **Current Regulatory Environment**

- 4) **The Latest on Green Bonds**

- 5) **Other Notable Financing Issues/Opportunities that Municipalities are Currently Facing:**
 - Federal funding initiatives (TIFIA, WIFIA, etc)
 - Federal deficits
 - P3 considerations
 - Pension Obligation Bonds
 - Rating agency criteria updates
 - Opportunity zones

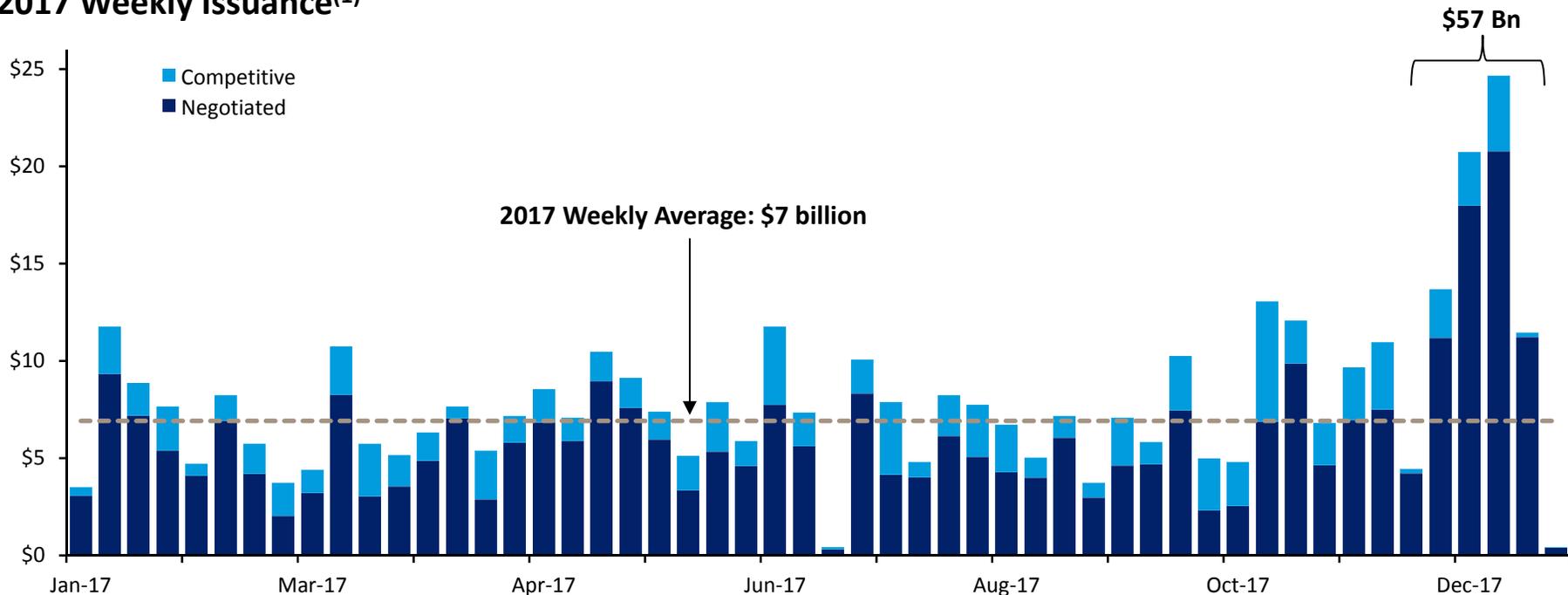
Impact of 2017 Tax Law Changes in 2018

Initial tax law volatility has settled, but replaced by broader market volatility

2017 went out with a bang in the wake of federal tax reform proposals

- Tax-law negotiations in late 2017 led to an unprecedented \$57 billion of volume in December – an all-time monthly volume record
- New issue volume:
 - 2017: \$410 billion
 - 2018: \$350-365 billion (expected) – down approximately 15%
 - Alaska 2018YTD volume at \$554 million, down 4% versus 2017YTD

2017 Weekly Issuance⁽¹⁾



Source: Thomson Reuters as of 12/31/17; excludes notes and private placements

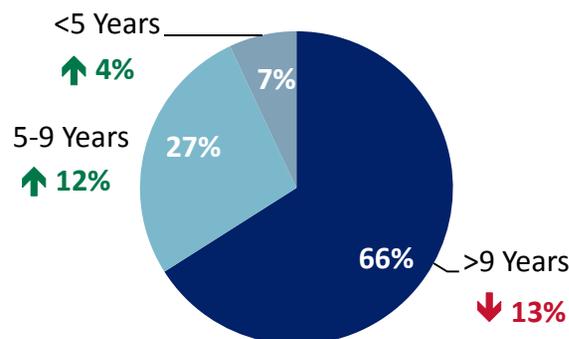


Impact of 2017 Tax Law Changes in 2018

Impacts of Tax Law Changes

- Initial market volatility surrounding tax law changes has settled down
- No more advance refundings with tax-exempt bonds
- Most pricings involve discussion and analysis of early calls and coupon variability due to the restrictions placed on traditional advance refundings
- Refunding policies may be updated to incorporate taxable advance refunding bonds and forward-delivery tax-exempt current refunding bonds
- Lower corporate tax rate has made tax-exempt bonds less valuable to certain investors, including banks
- Tax-exempt bonds remain an attractive investor tax strategy
 - Retail investor participation has recently picked up

Increase in Shorter Calls 2018YTD vs 2017YTD⁽¹⁾



BIGGEST U.S. BANKS CUT MUNICIPAL-BOND HOLDINGS AS TAX RATES FALL

“More than a half dozen of the biggest U.S. banks reduced their holdings of state and local government bonds by billions of dollars after the federal government slashed corporate tax rates, making the securities less valuable to one of the market's key buyers...”

...The figures show a significant pullback from buyers that had been steadily expanding their ownership of state and local government securities since the end of the recession, helping bolster demand. If the large banks are a guide, the quarter will mark the first time the industry has retreated from the \$3.9 trillion market since 2009...

The selling may not continue at the same pace since the partial rollback of the Dodd-Frank law this year allows them to use the bonds to satisfy liquidity requirements, giving them an incentive to hold the securities...”

Bloomberg News
May 31, 2018

2018 Market Volatility

Impacts of 2018 Market Volatility on Municipal Issuer Financing Decisions

■ Flat Yield Curve:

- Increased cost of capital at short-end of yield curve, but...
- Less negative arbitrage eases cost of “borrowing early” since bond proceeds, reserve funds, and other cash pools are earning more

■ Early Redemption Features:

- Shorter calls more common this year post 2017 tax reforms

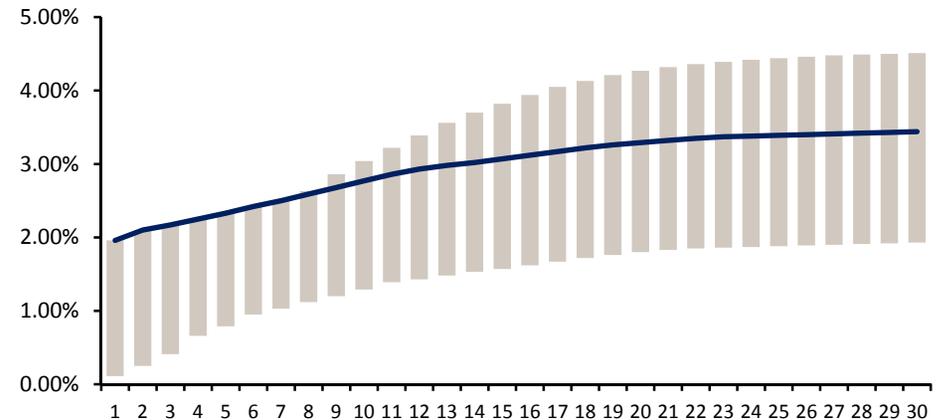
■ 2019 Technicals:

- BofAML expects one more rate hike in 2018 and three in 2019; market less convinced about 2019 hikes
- High principal and interest redemptions (i.e. re-investable funds) in Jan/Feb 2019 and summer 2019
- BofAML 2019 volume expectation: \$365 million (close to expected 2018 volume levels)

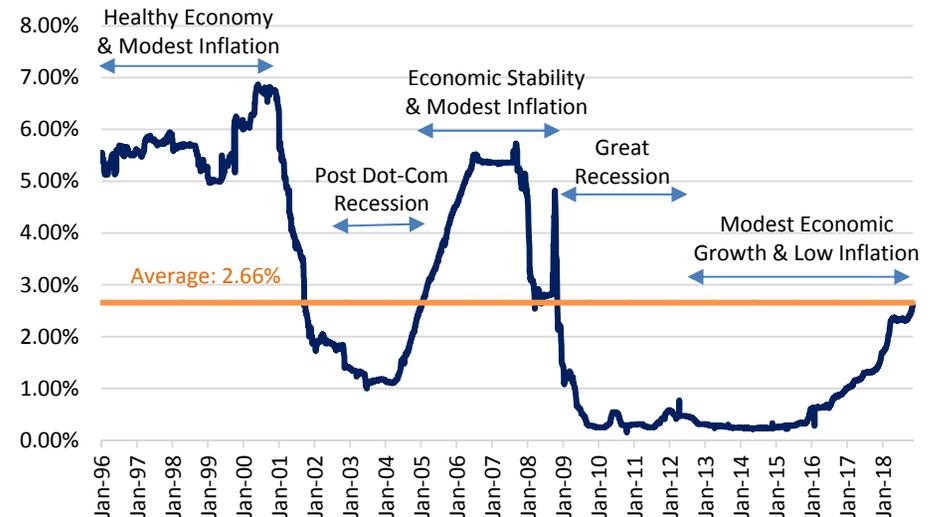
■ Credit Spreads:

- Much lower at short-end versus long-end of yield curve

Long-Term Rates Near 5-Year Averages; Yield Curve Flat



3-Month LIBOR Rate Since 1996



Regulatory Environment

Increased Oversight of Municipal Issuers and Participants

- Municipal advisor versus underwriter responsibilities and constraints
- Heightened focus on disclosure and continuing disclosure:
 - Staff and Board responsibilities
 - Shift to direct loans and bank lending products to limit disclosure work and ongoing compliance requirements
 - SEC recently announced two new continuing disclosure events to address bank loan disclosure
- Pricing transparency and oversight, including new Issue Price rules
- Regulatory and policy landscape in DC is currently very fluid
- May be benefits to consolidation of smaller issuers under a larger issuer “umbrella”

STATEMENT ON MAKING THE MUNICIPAL SECURITIES MARKET MORE TRANSPARENT, LIQUID AND FAIR

“Investors and other market participants have long criticized the quality, consistency, and timeliness of the disclosures provided by municipal issuers...

...With respect to the initial disclosures that are made when bonds are first issued, there are concerns over the absence of detailed information about issuers' outstanding debt, such as liens and collateral pledges...

...There is also widespread concern that issuers are not disclosing bank loans, which issuers have been pursuing in greater numbers in recent years...

...Municipal issuers also have a contractual obligation to provide continuing disclosure for the vast majority of the securities they issue. But here, too, there are pervasive problems. Industry participants have long complained that many issuers struggle to meet their obligation to provide complete and timely disclosures to the secondary market.”

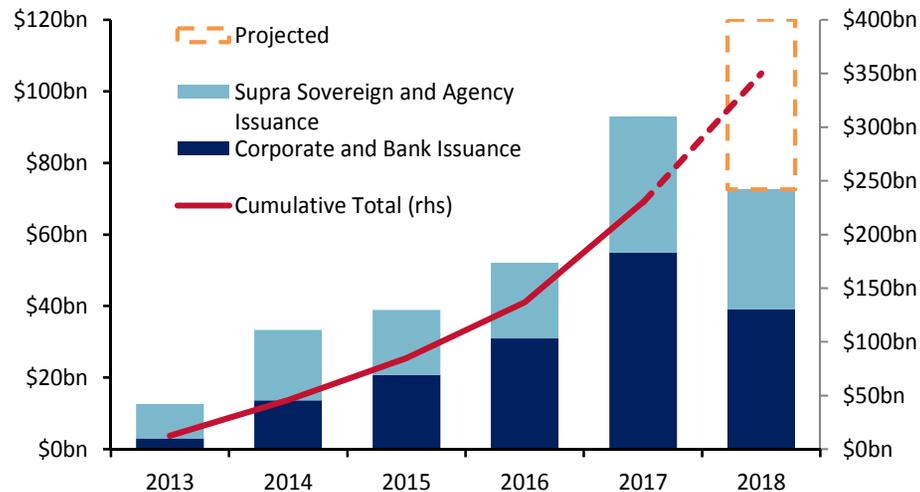
SEC Commissioner Luis A. Aguilar
February 13, 2015

The Latest on Green Bonds

Global and US Trends

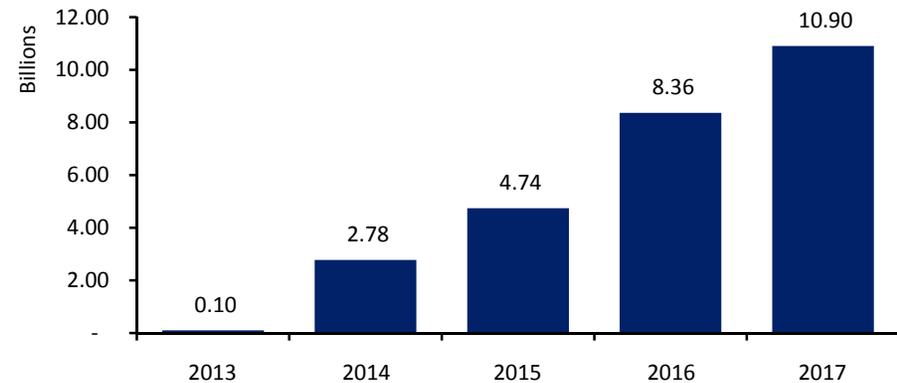
Global Green Bond Issuance Surpasses \$300bn⁽¹⁾

- The Green Bond market continues to grow at ~40%+ each year, driven by new issuers adopting the format



Municipal Green Bond Issuance Exceeds \$25bn⁽²⁾

- The Municipal Green Bond market grew 30% in 2017 after the previous two years of ~70%+ growth in 2015 and 2016



Benefits of Issuing Green Bonds

- Positive **public relations** regarding environmental stewardship
- High potential for **investor diversification**; Green Bond Funds, ESG Funds, Green ear-marked Funds, SRI's
- Transaction **structure, security and ratings not affected** by green nature of bonds
- Promotes **green initiatives** generally
- Currently Green Bonds **price roughly flat to non-Green Bonds**, although broader investor base can have benefits

Use of Proceeds Qualifying as Green Projects

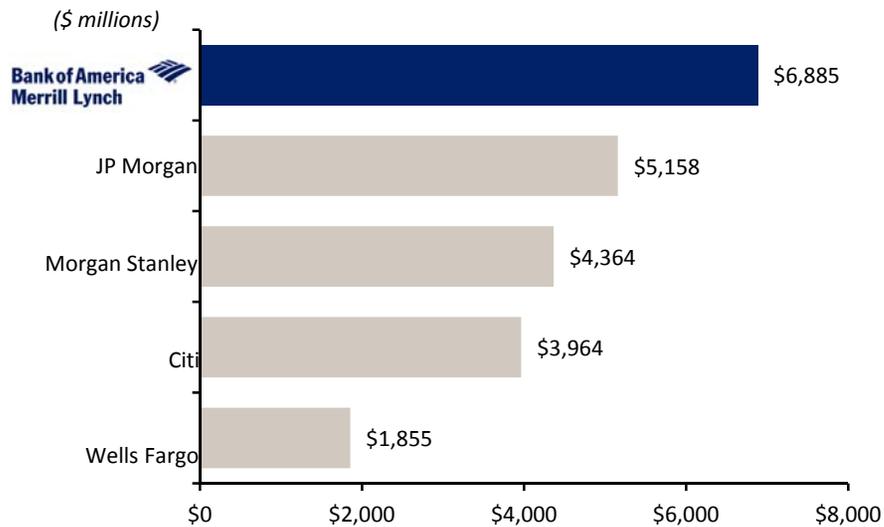
- Energy:
 - Solar
 - Wind
 - Geothermal
 - Biomass
 - Hydro
 - Tidal
 - Distribution/management
 - Storage
 - Power Purchase Agreements
- Transport:
 - Rail
 - Metro/Light Rail
 - Electric Vehicles
- Green Buildings:
 - New or Retrofit
- Water:
 - Recycling
 - Efficiency
- Waste:
 - Waste-to-Energy Plants
 - Recycling
- Industry
- Forestry



The Latest on Green Bonds

Select Recent Muni Green Bond Issuances

#1 Underwriter of Municipal Green Bonds 2013-2018YTD⁽¹⁾



BofAML's Green Bond Expertise

- BofAML's Public Finance Group works closely with Suzanne Buchta, Managing Director in Debt Capital Markets, who is the firm's foremost expert on Green Bonds across all industries
- Ms. Buchta, a co-author of the Green Bond Principles, has worked with Public Finance bankers to craft marketing plans and investor outreach strategies for numerous issuers and credits

Select Recent Muni Green Bond Issuances, 2017 – 2018YTD

Sale Date	Par (\$mm)	Issuer	State
10/30/2018	219.79	City of Los Angeles	CA
8/17/2018	202.22	Metropolitan Transportation Authority	NY
8/15/2018	189.79	City and County of Honolulu	HI
7/18/2018	594.15	San Francisco City & County Public Utilities	CA
6/13/2018	75.00	NYC Housing Dev Corp	NY
4/17/2018	300.00	District of Columbia Wtr & Swr Au	DC
4/5/2018	232.13	NYC Housing Dev Corp	NY
2/22/2018	449.23	California Infrst & Eco Dev Bank	CA
12/18/2017	350.31	San Francisco City/Co Public Util Comm	CA
12/14/2017	118.26	San Fran Bay Area Rapid Trans Dt	CA
12/6/2017	298.47	NYC Housing Dev Corp	NY
11/29/2017	347.46	Iowa Finance Authority	IA
11/22/2017	2021.46	Metropolitan Transport Auth	NY
10/26/2017	171.41	San Francisco City/Co-California	CA
10/12/2017	471.40	Los Angeles Co Metro Trans Auth	CA
10/11/2017	145.54	Indiana Finance Authority	IN
9/20/2017	662.03	Metropolitan Transport Auth	NY
8/16/2017	20.06	Honolulu City & Co-Hawaii	HI
7/27/2017	25.99	Greensboro City – North Carolina	NC
6/14/2017	380.58	NYC Housing Dev Corp	NY
6/2/2017	250.00	Connecticut	CT
5/24/2017	228.17	California Poll Control Fin Auth	CA
5/11/2017	142.67	Denver City and Co-Colorado	CO
5/11/2017	680.27	Metropolitan Transport Auth	NY
5/10/2017	384.74	San Francisco Bay Area Rapid Transit Dt	CA
5/9/2017	450.16	City of Los Angeles	CA
5/4/2017	254.75	Massachusetts Water Resources Auth	MA
5/3/2017	408.39	California Health Facs Fin Auth	CA
4/15/2017	681.62	Massachusetts Water Resources Auth	MA
4/7/2017	100.00	Massachusetts	MA
4/5/2017	207.35	Massachusetts Clean Water Trust	MA
3/10/2017	325.59	Metropolitan Transport Auth	NY
2/28/2017	450.00	California Infrastructure & Eco Dev Bank	CA
2/15/2017	312.83	Metropolitan Transport Auth	NY
1/31/2017	100.00	District of Columbia Wtr & Swr Au	DC
1/17/2017	106.36	New Jersey Environmental Infr Trust	NJ

■ BofAML Senior Managed Transaction

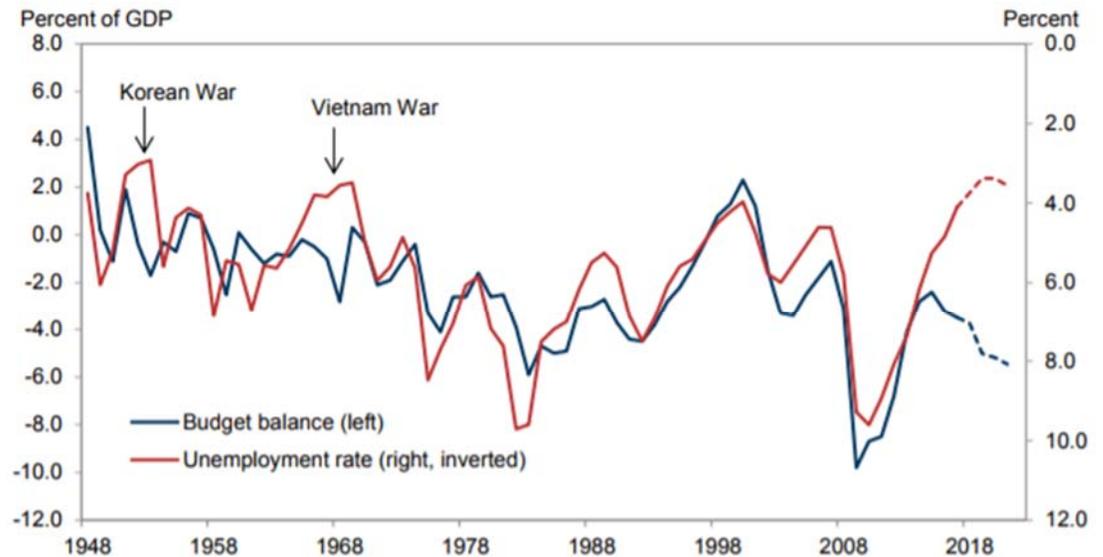


Additional Hot Topics

Other Notable Financing Issues/Opportunities Facing Municipal Issuers

- Federal funding initiatives (TIFIA, WIFIA, etc):
- Federal deficits →
- P3 considerations
- Pension Obligation Bonds
- Rating agency criteria updates
- Opportunity zones

Historical Relationship Between US Deficits and Employment



Source: Department of Commerce, Congressional Budget Office

Conclusion

Hot Topics in the Municipal Bond and Credit Markets

Thank you!

I hope you found the conference fruitful and enjoyable

Appendix: Risk Disclosures

Risk Disclosures

Fixed Rate Bonds⁽¹⁾

Material Risk Consideration	Description of Risk	Potential Consequences
Issuer Default Risk	Possibility that the Issuer defaults under the authorizing documents	<ul style="list-style-type: none"> -Range of available remedies may be brought against Issuer (e.g., forcing Issuer to raise taxes or revenues) -Credit ratings negatively impacted -Access to capital markets impaired -Possibility of receivership or bankruptcy for certain issuers
Redemption Risk	The ability to redeem the bonds prior to maturity may be limited	<ul style="list-style-type: none"> -Inability to refinance at lower interest rates
Refinancing Risk	Possibility that the bonds cannot be refinanced	<ul style="list-style-type: none"> -Inability to refinance at lower interest rates
Reinvestment Risk	Possibility that the Issuer may be unable to invest unspent proceeds at or near the interest rate on the bonds	<ul style="list-style-type: none"> -Negative arbitrage resulting in a higher cost of funds
Tax Compliance Risk	For tax-exempt bonds, possibility that failure to comply with tax-related covenants results in the bonds becoming taxable obligations	<ul style="list-style-type: none"> -Increase in debt service costs retroactively to date of issuance -Possible mandatory redemption of bonds affected -Risk of IRS audit -Difficulty in refinancing the bonds -Access to tax-exempt market impacted -Difficulty in issuing future tax-exempt debt

⁽¹⁾ You should consult with your financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent you deem appropriate concerning such risks.

