Economics and Strategy



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After year to remember, Canadian PSEs increasingly active issuers

By Warren Lovely & Alpa Atha

We were recently treated to official 2020–21 fiscal year results for one of Canada's large, high-profile public sector entities: the Public Sector Pension Investment Board. Empirically speaking, the last year produced exceptional results at PSP Investments, just as it did at CPP Investments (which was out with its own annual report one month earlier). With CDPQ having tabled its own results in mid-April, it's an appropriate time to reflect on the year that was and the strategic direction for the future, including evolving bond issuance programs.

A note on what this report is and, as importantly, what it is not. This Market View is meant to summarize and highlight key takeaways from the recent annual reports from three related PSEs. Those seeking more detailed/comprehensive documentation are directed to official websites. While we touch on the debt/issuance outlook, this report is not meant to serve as a credit primer. Since their establishment, these large PSEs have boasted numerous credit strengths and robust bondholder safeguards, resulting in strong/stable credit ratings over time. For greater detail on risk frameworks and detailed credit strengths/attributes, official websites and/or credit rating reports are undeniably useful sources.

Note that NBF's SSA Fact Sheet is a separate reference guide, placing Canada's PSEs in a more global/SSA context. In addition to CPPIB Capital, PSP Capital and CDP Financial, our SSA Fact Sheet includes other relevant Canadian issuers, including Ontario Teachers' Finance Trust and OMERS Finance Trust.

Updated performance records: 2020-21 a truly remarkable year

First, a key point of distinction: For both CPP Investments and PSP Investments the fiscal year ends March 31st. For CDPQ, however, the fiscal year is aligned with the calendar, ending December 31st. In a "normal" year, this three-month gap in fiscal year end might not make an enormous difference. But 2020 was no normal year. The inclusion of (or ideally the exclusion of) January-March 2020 has a major impact on one-year investment performance. Consider...

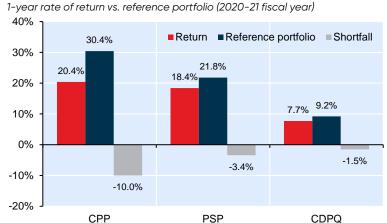
CPP Investments recorded a net return of 20.4% for the year ending March 31st. It's best-ever performance. PSP Investments wasn't far behind at 18.4%. Given the inclusion of the heavily distorted 2020:Q1, CDPQ's one-year return (to December 31st) was 7.7%. This is hardly apples-to-apples when comparing performance. We'd note that CDPQ's calendar 2021 results should benefit from this distorted base of comparison, at least for Q1. But that's a story for another day/year.

In all three cases, 2020–21 returns fell short of the reference portfolio (Chart 1). That's partly a reflection of asset mix, reference portfolios generally having a larger public equity weighting. For example, the reference portfolio for the Base CPP is 85% global equity, standing some 30%-pts higher than the current allocation. On a single-year basis then, 2020–21 was a case of diversification holding back returns vs. a more concentrated/equity-centric benchmark.

The virus impact was notable in the real assets segment, which has a non-trivial weight for each of the three. For example, CDPQ's real assets segment suffered a negative return of -7% in 2020, as leverage to locked-down shopping centres and office buildings weighed.

Canadian dollar appreciation since last spring has also left an imprint on portfolio performance, returns on foreign currency investments receiving a non-trivial haircut once translated back to loonies. Last year's outsized currency impact is unlikely to be repeated, <u>our own forecasts</u> seeing relatively modest moves for the Canadian dollar vs. a basket of currencies either to the end of 2021 or March 2022.

Chart 1: Returns fell short of reference portfolio last year



Source: NBF, CPPIB, PSP Investments, CDPQ

Notwithstanding last year's sub-reference returns, portfolio diversification has proven beneficial over time. And to be clear, the Canadian PSEs in focus here are longer-term investors. Smoothing results out over ten years, you'll find double-digit annualized rates of return at CPP Investments (Chart 2). Over that decade, CPP Investments' active management contributed an excess C\$27.8 billion in compounded DVA vs. the passive reference portfolio.

Chart 2: The longer-term performance record

Annualized rates of return over 1, 5 & 10 years (as of 2020-21)



Source: NBF, CPPIB, PSP Investments, CDPQ

For PSP Investments, last year's return (while shy of the reference portfolio) was nonetheless the strongest in the past decade. The resulting ten-year rate of return, at 8.9%, topped the reference portfolio by C\$11.3 billion or 0.7%-pts on an annualized basis. Put that excess return down to strategic asset allocation and active management strategies.

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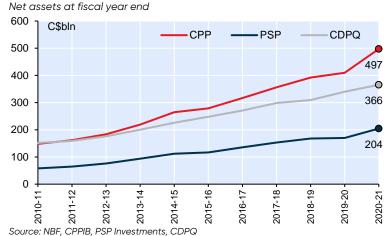
As noted, CDPQ's 2020 total portfolio return fell short of its benchmark by 1.5%-pts in 2020 but was nonetheless "slightly above" the benchmark over five years (by 0.2%-pts annually). That's equivalent to C\$1.7 billion in excess return over five years, or north of C\$9 billion in value added over a longer, ten-year horizon.

Asset levels up, up and away

Factoring in the above-noted gains, CPP Investments, CDPQ and PSP Investments collectively ended the last fiscal year with more than C\$1 trillion in AUM (Chart 3). For context, Canadian nominal GDP amounted to C\$2.2 trillion in 2020. The net asset breakdown:

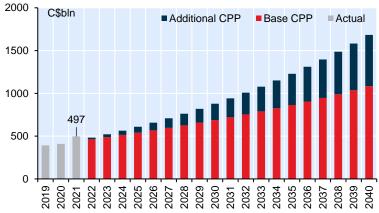
- CPP Investments: C\$497.2 B (31-Mar-21); +235%/3.35X over 10Y
- CDPQ: C\$365.5 B (31-Dec-20); +141%/2.41X over 10Y
- PSP Investments: C\$204.5 B (31-Mar-21); +252%/3.52X over 10Y

Chart 3: Net assets 2.4-3.5 times larger than a decade ago



Rapid asset growth has the CPP Fund on the cusp of C\$500 billion in net assets seven years ahead of plan. The latest *Actuarial Report* (the 30th installment), which once again deemed the CPP financially sound longer term, sees assets hitting C\$1 trillion in little more than ten years' time (Chart 4). Long-term projections point to a genuinely massive and rapidly growing stockpile of financial assets in the Canada Pension Plan, the C\$3 trillion threshold in sight by 2050.

Chart 4: CPP Fund alone could reach C\$1 trillion in ~10 years Projected growth in net assets of CPP Fund (Base CPP + Additional CPP)



Source: NBF, CPPIB | Note: Projections based on legislated contributions, as per latest Actuarial Report; fiscal year ending 31-Mar

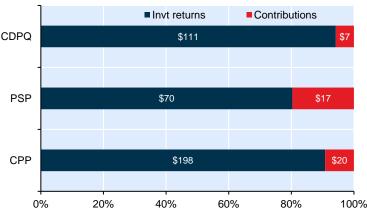
The financial sustainability of the CPP is not only a relief to the 20+ million contributors and beneficiaries but (along with the Quebec

Pension Plan, whose assets are managed by CDPQ) forms a big part of Canada's general government net debt edge vs. many advanced nations. Put another way, a sound and well-funded public pension system is a strategic fiscal advantage for Canada, clearly a story for the sovereign in addition to select PSEs.

PSP Investments likewise foresees heady asset growth ahead. Assets are set to eclipse the C\$350 billion mark by 2030, implying "significant amounts of capital to deploy in the coming years."

Asset growth has been somewhat slower (although still significant) at CDPQ over the past decade. That could be partly a function of a more mature depositor base. Note that CDPQ was established in the mid 1960s, whereas PSP Investments and CPP Investments were set up in the mid-to-late 1990s. A five-year look back shows net contributions have contributed relatively less to asset growth at CDPQ (Chart 5).

Chart 5: Asset growth attribution... contributions play a role Composition of cumulative growth in net assets over 5 years (as of 2020-21)



Source: NBF, CPPIB, PSP Investments, CDPQ | Note: Figures in chart are 5Y chg in C\$bln

Even if investment returns have accounted for the lion's share of gains in recent years, positive net contributions (i.e., positive net cash flows) nonetheless look to remain a supportive element of the credit story for these Canadian PSEs in the coming years.

Highly diversified portfolios

The assets of CPP Investments, CDPQ and PSP Investments remain highly diversified. This speaks to the increasingly global and broadbased investment strategies that have been pursued.

CPP Investments for instance, has gone from full exposure to Canadian government bonds in 1999 to a broadly diversified portfolio, by asset class and geography. As of March 2021, the fixed income portfolio weight was down to 23% vs. 56% for equities and 21% for real assets. Meanwhile, the non-Canadian share of total CPP portfolio had surpassed 84% (Chart 6).

PSP Investments has about 20% of its assets in Canada, while a clear and deliberate focus has seen the share of private assets increase over time. A quick glance at asset class weightings illustrates the diversified nature of its holdings (Chart 7). CDPQ, with its more unique mandate, has a material presence in Quebec. No surprise then that the CDPQ's Canada weight is higher than at CPP or PSP. Still, the Canadian portion of the portfolio was down to 32% in 2020 vs. 46% five years' earlier. At the same time, the fixed income weight has fallen, a larger share now invested in less-liquid assets (2020: 36%, 2015: 27%).

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Chart 6: Wholesale transformation of CPP portfolio

Distribution of CPP Investments' net assets by asset class & geography

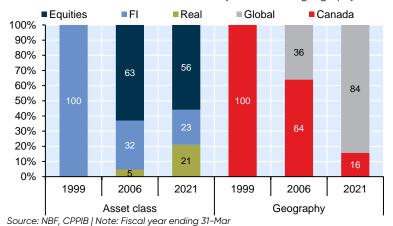
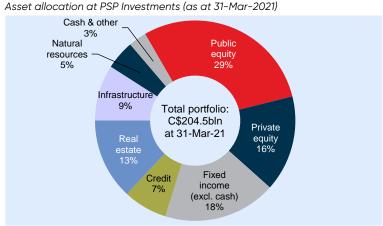


Chart 7: PSP Investments portfolio a picture of diversification



Source: NBF, PSP Investments

To be clear, we've presented only a sampling of charts highlighting portfolio diversification. We'd refer you to official websites, financial reports and the latest investor relations material for more complete details on portfolio composition and broad investment strategy.

Sustainability/ESG an increasingly vital consideration

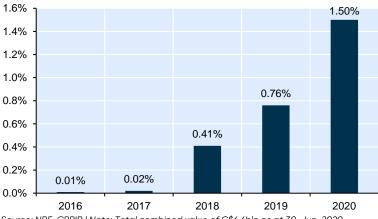
While geographical and asset class/sector diversification are clear priorities, so too is a focus on sustainable investing. Each of the three PSEs in focus here highlight the growing importance of ESG/sustainability elements when it comes to portfolio management.

CPP's 2020 Report on Sustainable Investing outlines how ESG is taken into consideration and what is expected of portfolio companies. As but one example of this ESG focus, CPP Investments has steadily increased its exposure to renewable energy, where long-term, riskadjusted returns are deemed attractive (Chart 8). The weighted average carbon intensity (WACI) of public and private assets held by CPP Investments had been cut ~23% year-over-year as of mid-2020.

For CDPQ, a mounting ESG focus is an opportunity to help promote/generate sustainable growth, having set an objective of a carbon-neutral portfolio by 2050. There's already been a 38% drop in carbon intensity since 2017, far surpassing an initial target (Chart 9). Low-carbon assets are now double what they were in 2017 and thus comprise a growing share of net AUM (~10%). Refer to CDPQ's 2020 Stewardship Investing Report for additional info.

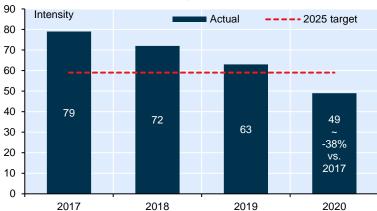
Chart 8: Renewables a clear focus at CPP Investments

Share of CPP Fund invested in renewable energy assets



Source: NBF, CPPIB | Note: Total combined value of C\$6.6bln as at 30-Jun-2020

Chart 9: CDPQ surpasses target for reduced carbon intensity Carbon intensity of CDPQ investment portfolio



Source: NBF, CDPQ | Note: Intensity measured in tCO₂e/M\$ invested

Responsible investment is likewise a core focus when it comes to PSP Investments' total fund approach. The value of green assets had grown to C\$12.6 billion as at March 2021 (exceeding 6% of the portfolio). PSP has been measuring the carbon intensity of its investments since 2017; despite rising in 2021, the portfolio's WACI is down nearly 20% vs. 2016. The past year has seen an increased focus on diversity/inclusion, with more tools developed to actively monitor ESG profiles. As per the 2021 Responsible Investment Report, PSP intends to "elevate ESG as a key value driver and an integral part of PSP's portfolio construction process and investment decisions."

In all three cases, CPP investments, CDPQ and PSP Investments are making their ESG priorities/ambitious known, backing this up with more activist voting policies (where applicable). The sheer size of these Canadian PSEs amounts to a powerful incentive to portfolio companies to adopt best practices and more ESG-sensitive policies.

ESG focus colouring issuance outlook too

The growing focus on ESG is also reflected in treasury operations. CPPIB Capital became the first pension fund manager to issue a green bond back in 2018 and has since brought greens in a variety of sizes/formats (large benchmark trades to smaller private placements) and currencies (AUD, CAD, EUR and USD). Consistent with CPP Investments' ESG-sensitive culture and broad investment objectives, green bond proceeds have financed a growing array of

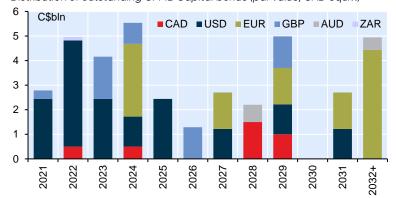
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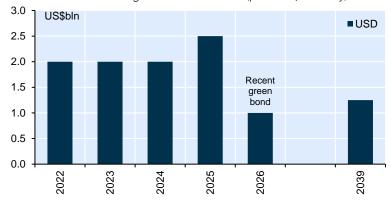
eligible investments (e.g., renewable energy, green buildings), securing access to an even broader investor base. As it stands, greens comprise roughly C\$5½ billion or almost 15% of CPPIB Capital's total outstanding long-term debt—a share that could well rise. The underlying Green Bond Framework aligns with ICMA's Green Bond Principles (GBP), with CICERO providing the Second Opinion.

Charts 10-12: A view of existing maturity profiles

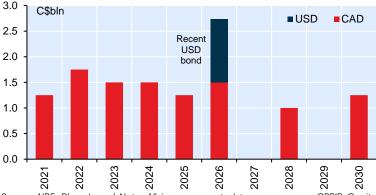
Distribution of outstanding CPPIB Capital bonds (par value, CAD equiv.)



Distribution of outstanding CDP Financial bonds (par value, USD only)



Distribution of outstanding PSP Capita bonds (par value, CAD equiv.)



Source: NBF, Bloomberg | Note: All issues converted to common ccy; CPPIB Capital currently has 6 o/s green bonds in CAD, AUD, EUR, maturities ranging 2027-41

CDP Financial issued its inaugural green bond last month. Like all its existing bonds, the new green financing was placed in the USD market. The US\$1 billion 5-year deal (CADEPO 1% May-2026 maturity, 144A/Reg S format) was issued pursuant to a Green Bond Framework that aligns with the GBP and received a second party opinion from Sustainalytics. Given CDPQ's participation in carbon-friendly infrastructure projects (e.g., the 100% electric REM light rail transit network in Greater Montreal, various renewable power projects) it's

likely that we'll see additional green bonds from this issuer... alongside conventional term financings.

PSP Capital has not, to this point, issued in green format. Still, with a concerted effort to acquire more green assets in the investment book, a green bond could simply be a matter of time, an inaugural issue perhaps coming as early as this fall. Regardless, this issuer's conventional bond program is clearly evolving, PSP Capital having recently tapped the USD market for the first time ever. Prior to that recent US\$1 billion 5-year USD deal (PSPCAP 1% Jun-2026 maturity, 144A/Reg S format), all outstanding PSP Capital bonds had been placed in the CAD market.

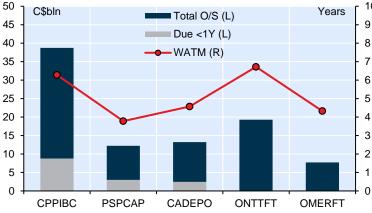
Bond programs poised to grow (materially)

Whether in green or conventional format, issuance from these large, highly rated PSEs is pointed up, if not indefinitely than at least for the foreseeable future. There are a few factors at play.

First, net assets are accumulating, in some cases rapidly. These PSEs generally establish debt limits relative to net AUM, so more assets = scope for incremental strategic leverage. We'd note that all three already had considerable room relative to existing debt limits. Finally, with related bond programs increasingly mature, we'll be seeing more issues roll off in the coming years—notionally adding room under debt caps. E.g., CPPIB Capital has the equivalent of nearly C\$9 billion of bonds maturing inside of one year, while PSP Capital has the shortest weighted average maturity of related Canadian PSEs (Chart 13).

Chart 13: Term structure of outstanding bonds

Profile of outstanding bonds by term to maturity



Source: NBF, Bloomberg | Note: Foreign ccy issues converted to CAD equiv.

PSP Capital has, for one, formally upped its issuance guidance to C\$5-6 billion per year—essentially double the prior targeted run rate (C\$2.5-3.5 billion). Given the projected growth in AUM and by extension recourse debt, expect PSP Capital to be an increasingly active bond issuer over the balance of this decade (and beyond). In terms of tenor, 3Y-10Y remains the core focus, while benchmark-size trades promote secondary market liquidity (a strategy in place since PSP Capital first hit debt capital markets in 2005). Again, its first-ever green bond may not be too far off.

You won't necessarily find official issuance targets at CPPIB, but the asset base is largest here and set for dramatic expansion (spurred in part by net contributions from the Base CPP and the Additional CPP). Bond deal flow speaks for itself. CPPIB Capital issuance will undoubtedly set a record in calendar 2021, the equivalent of >C\$10 billion having already been placed with investors in the first six months

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of the year. Like the investment portfolio, CPPIB Capital's debt market activity is strategic and highly diversified. It entails issuance in a range of currencies (major and peripheral) and various formats, bonds likewise issued at multiple points of the term structure. Frequency, flexibility and dynamism are hallmarks here.

For CDPQ, a new US\$20 billion multicurrency senior debt program was launched in 2019, bringing a couple years of bond market inactivity to an end. Issuance stepped up last year (two deals securing US\$4.5 billion in calendar 2020), activity having continued this year (via the aforementioned green bond). Look for a continuation of regular benchmark issuance, while EUR and CAD offerings could be a potential avenue to broaden the global investor base participating in this name.

Intrinsic credit quality has long been a major selling point

Importantly, the expected increase in deal size and/or frequency need not presage a deterioration in intrinsic credit quality.

We expect relatively conservative leverage limits to remain firmly in place. Liquidity levels are consistently robust, supported by large investment portfolios and aided by the positive net contribution profile earlier discussed. In our opinion, management teams are highly qualified, governance strong, risk management proactive, independence from related governments having been well established (including segregation of funds/investments). Critically, holders enjoy senior ranking to pension beneficiaries/depositors. All this lends considerable support to stand-alone credit profile (SACP) and/or baseline credit assessment (BCA). While these PSEs are not explicitly guaranteed by underlying/related governments, we nonetheless consider there to be a relatively high likelihood of extraordinary support in the unlikely event of extreme financial duress. This implicit support reflects, to varying degrees, the important public policy role that each in turn plays.

Table: Ratings profile for select Canadian PSEs

Assigned ratings (short- and long-term), plus underlying credit assessments

Issuer	S&P	Moody's	DBRS
CPPIB Capital Ticker: CPPIBC Guaranteed by:	AAA, Stable	Aaa, Stable	AAA, Stable
	A-1+	P-1	R-1 (high)
CPPIB	SACP: aaa	BCA: aa2	-
	[15-Jan-2021]	[29-Oct-2020]	[18-Jun-2021]
PSP Capital Ticker: PSPCAP Guaranteed by: PSPIB	AAA, Stable	Aaa, Stable	AAA, Stable
	A-1+	P-1	R-1 (high)
	SACP: aaa	BCA: aa2	-
	[25-Jan-2021]	[25-Aug-2020]	[4-Dec-2020]
CDP Financial Ticker: CADEPO Guaranteed by: CDPQ	AAA, Stable	Aaa, Stable	AAA, Stable
	A-1+	P-1	R-1 (high)
	SACP: aaa	BCA: aa2	-
	[15-Jan-2021]	[30-Nov-2020]	[3-Jul-2020]
Ontario Teachers' Finance Trust Ticker: ONTTFT Guaranteed by: OTPP	AA+, Stable	Aa1, Stable	AAA, Stable
	A-1+	P-1	R-1 (high)
	SACP: aa+	BCA: aa3	-
	[15-Jun-2021]	[7-Apr-2021]	[4-Jun-2021]
OMERS Finance Trust Ticker: OMERFT Guaranteed by: OMERS Admin Corp	AA+, Stable	Aa1, Negative	AAA, Stable
	A-1+	P-1	R-1 (high)
	SACP: aa+	BCA: a3	-
	[16-Jun-2021]	[8-Apr-2021]	[23-Jul-2020]

Source: NBF, S&P, Moody's, DBRS Morningstar | Note: Dates in [:] refer to latest rating report or credit opinion; note the guarantee structure; Fitch also rates select Cdn PSEs

For reference, the current ratings profile is detailed in the above table. In addition to CPPIB Capital, PSP Capital and CDP Financial, we've included the ratings profiles for Ontario Teachers' Finance Trust and

OMERS Finance Trust. Note that the latter name was placed on 'negative' outlook by Moody's in April, reflecting "the deterioration in OMERS' funding profile since the onset of the pandemic crisis".

Is there still value here?

For CPPIB Capital, PSP Capital and CDP Financial, credit quality remains top tier... as it has been since ratings were first assigned. Critically, more frequent primary market activity and the resulting enhancement of secondary market depth has encouraged investors to recognize the underlying quality of these assets. Indeed, relative liquidity—which might have been an initial consideration when programs were first launched—has improved steadily and should continue to deepen given the scale of projected issuance.

While there's been a fundamental repricing of these bonds over recent years—particularly relative to sub-sovereign governments—we still consider valuations attractive on a ratings-adjusted basis. In the Canadian bond market, the likes of CPPIB Capital and PSP Capital trade at premium spreads to benchmark provincial names. However, we're quick to point out that provincials are not necessarily the appropriate comp, as both CPPIB Capital and PSP Capital reside in the 'Federal' index. Instead, consider the spread enhancement available vs. explicitly guaranteed Canada Housing Trust, with the 10-year basis (currently 20+ bps) looking attractive in our opinion. To be fair, CMB liquidity is objectively superior, as befits an issuer with ~C\$250 billion outstanding. But we would again highlight the larger and more frequent bond deal flow expected to come from CPPIB Capital and PSP Capital, the former having already provided investors a welcome avenue to secure green product.

In the USD market, all three of CPPIB Capital, CDP Financial and PSP Capital are now active. Canadian PSEs, like any number of other credits observed globally, have tended to benefit from a generalized reach for incremental yield (itself a byproduct of excess liquidity). As in Canada, the availability of socially responsible product (including greens) has clearly resonated with investors, while ongoing/active investor relations and effective soft sounding has led to the successful and secure placement of bonds.

In many cases, we'd comp these names vs. SSAs, noting that increased USD supra supply has diminished the relative scarcity premium that might have been earlier attached to certain SSA names. Finally, we'd highlight the demonstrated outperformance of certain Canadian PSEs vs. lower-rated provincials during last year's financial market turbulence. That speaks to the more defensive nature of these bonds, which could be consideration for investors as monetary policy accommodation is gradually unwound and credit risk potentially repriced.

In sum...

We see Canadian PSEs as extremely well positioned to offer investors, in Canada and abroad, more of what they apparently desire: attractively priced, high quality, increasingly liquid and socially responsible product.

Issuance from this sector could well grow faster than any other segment of Canada's broad public sector universe, the investor base actively trading these bonds due to broaden materially.

Notwithstanding certain issuer-specific credit considerations, we deem current valuations fundamentally attractive in both CAD and USD markets, anticipating further compression relative to key peers.

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General

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