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Brief review of empirical studies on the economic performance of dual-class companies: 2007 to 2018

Policy Paper "The Case for Dual-Class of Shares" (December 2018)

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**Table 1 : Summary table
Empirical studies on the relationship
between dual-class capital structure
and company performance, 2007 à 2018**

Impact of DCS on performance	Studies	
	Number	%
Favorable or neutral	18	48,6%
Unfavorable	19	51,4%
Total	37	100%

Source: IGOPP compilation, 2018.

Table 2: Empirical studies finding unfavorable impacts of dual class share firms (DCS) on firm value or investor interests according to title, authors, year of publication, sample¹, period, countries and main findings (n=19)

Author(s), title, year,	Sample, period, country	Main Findings
Information Environment and Earnings Management of Dual Class Firms Around the World, Li and Zaiats, 2017	12672 non-financial firms, 19 countries (including Canada, U.S. not included) 1994-2010	Dual class firms are associated with poorer information environments and increase accrual-based earning management. Results also show that DCS structures weaken the mitigating impact of investor protection on earnings management and that, following unification, firms experience an improvement in information environment and a decrease in earning manipulation.
Corporate governance and firm value at dual class firms Li and Zaiats, 2016	1309 U.S. dual class firms and 3342 U.S. single class firms year observations, 1996–2006	Evidence show that dual class firms are more likely to employ more shareholder rights provisions while exhibiting lower board and board committee independence than single class firms. The results also show that shareholder rights increase while board provisions decrease in wedge at dual class firms. Further findings underscore that firm value at dual class firms decreases in wedge, and increases in shareholder rights and in board-related provisions, particularly in director independence. While strong board-related governance at dual class firms is significantly positively related to firm value in a multivariate setting, shareholder rights are significantly associated with firm value only in instances of the weakest board provisions.

¹ Inclusion or exclusion criteria of all samples are unspecified in the table.

Author(s), title, year,	Sample, period, country	Main Findings
Divergence of Cash Flow and Voting Rights, Opacity, and Stock Price Crash Risk: International evidence Divergence of cash flow rights from voting rights Hong, Kim and Welker, 2017	449 dual-class share firms (3350 firm-year observations, 20 countries (including Canada and USA), 1995–2007	This study investigates whether and how the deviation of cash flow rights (ownership) from voting rights (control), or simply the ownership-control wedge, influences the likelihood that extreme negative outliers occur in stock return distributions, which is referred to as stock price crash risk. Result find that opaque firms with a large wedge are more crash prone than opaque firms with a small wedge. In addition, the positive relation between the wedge and crash risk is less pronounced for firms with more effective external monitoring and for firms with greater growth opportunities.
Controlled companies 2015 in the S&P 1 500 – A follow up review of performance & risk Kamonjoh and Edward, 2016 (ISSS-IRRC)	105 S&P 1 500 U.S. controlled companies (79 DCS, 35 controlling shareholders), 2015	Comparisons of performance metrics (EBITDA, ROE, ROIC, ROA, TSR, revenue) between 2012 and 2015 over different time periods. The findings show that control mechanism matters for the U.S. firms. Controlled companies featuring multiple classes of stock generally underperformed on a broad swath of financial metrics over the long term, are perceived as having more financial risk, and offer fewer rights to unaffiliated shareholders than dispersedly owned firms. By contrast, firms in which the controlling party's voting power and economic power are aligned outperform other controlled companies in some respects while offering unaffiliated shareholders comparatively more rights. While insiders may favor the combination of public market liquidity with private market autonomy, it does not appear that external shareholders necessarily benefit from this tradeoff.

Author(s), title, year,	Sample, period, country	Main Findings
Dual-class capital structures: a legal, theoretical & empirical buy-side analysis McKinnon, 2015	17 large technology acquisitions- 5 by U.S. DCS and 12 by U.S. SCS, 2006-2014	To examine large technology acquisitions (valued over one billion dollars) made by big US technology firms (DCS and SCS). The significantly higher returns to large technology acquisitions accomplished by single-class firms relative to dual-class firms reveal that single class companies make better large-scale acquisition decisions for shareholders. Returns are lower for dual-class firms because managers with superior voting rights are willing and able to acquire riskier targets, which can destroy value for ordinary shareholders. In this analysis, value is measured in terms of market price, revealing only the returns to public shareholders and not the private benefits to high-vote shareholders.
The long-term valuation effects of voluntary dual class share unifications Lauterbach and Pajuste, 2015	121 voluntary dual class share unification, Europe, 1996-2009	Uncover evidence suggesting a positive valuation response to governance improvements and a negative evaluation response to possible financial tunneling. Corporate governance improvement is attained by abolishing the wedge between ownership and voting rights and by significantly decreasing controlling shareholders' voting power. Financial tunneling is suspected when some controlling shareholders use the unification hype to sell part or all of their holdings at inflated prices. On average, the corporate governance positive valuation effects prevail, and voluntary unifications are accompanied by a statistically and economically significant increase of Tobin's Q.

Author(s), title, year,	Sample, period, country	Main Findings
Dual v. Single Class Firms: An Acquisition Perspective Hossain, 2014	U.S. Corporate takeovers between 1996 and 2009 (12404 transactions in total)	Single class firms experience higher abnormal returns around acquisition announcements and that dual class firms primarily undertake value destroying acquisitions. Long-term post-acquisition operating performances for single class firms are also found to be significantly higher.
Excess Control Rights and Corporate Acquisitions Belot, 2014	691 acquisitions initiated by 197 French public firms, (SBF250) 2000 – 2009, France	Firms whose largest shareholder holds significant excess control rights are less likely to engage in mergers and acquisitions (M&A) activity. The separation of ownership from control is negatively correlated with acquisition quality; this is especially the case for firms that authorize double voting rights. This result suggests that controlling shareholders use corporate acquisitions as a means of extracting private benefits at the expense of minority shareholders.
Management entrenchment and the valuation discount of dual class firms Baulkaran, 2014	792 U. S. dual class firms 2001–2007.	Paper shows that investors apply a greater discount to the value of dual class firms as the degree of managerial entrenchment increases. The impact of entrenchment on dual class discount is more pronounced when the CEO is the controlling shareholder compared to when the controlling shareholder is a director or the chairman of the board.
Analysis of dividend policy of dual and single class U.S corporations Amoako-Adu, Baulkaran and Smith, 2014	792 U.S. dual class firms, 2001–2007	After examining the relationship between dual class share structure and dividend policy after controlling for relevant cross-sectional factors, results show that dual class companies pay out less cash dividends and repurchase fewer shares and that cash distributions decrease as the divergence of voting and cash flow rights widens.

Author(s), title, year,	Sample, period, country	Main Findings
Retaining Majority Ownership and Control After the IPO Jensen, Marshall and Jahera, 2014	1 112 U.S. IPOs (101 DCS), June 2002- May 2012	<p>Evidence suggests that non-controlling shareholders generally don't get the premium value placed on their shares that controlling shareholders shares do.</p> <p>There is a potential for greater corporate turmoil with more time spent on corporate governance issues such as proxy fights and litigation suits when the firm has poor performance.</p> <p>There can be an adverse impact on treasury operations if corporate governance fails through higher financing costs, downgraded credit ratings, and weakened investor confidence.</p> <p>Reduced valuation of the firm based on firms switching from dual-class to single-class shares. There is some evidence that dual-class firms may underperform.</p>
Dual class discount and the channels of extraction of private benefits, Amoako-Adu, Baulkaran and Smith, 2013	792 U.S. dual class firms, 2001-2007	<p>Executives in dual class firms earn greater compensation relative to their counterparts in single class firms. The value of dual class shares is discounted most when cash holdings and executive compensation of dual class are excessive. Excess compensation is highest for executives who are family members of dual class companies.</p> <p>The research shows that the discount in the value of dual class shares in relation to the value of closely controlled single class company shares is directly related to the channels through which controlling shareholder-managers can extract private benefits.</p>

Author(s), title, year,	Sample, period, country	Main Findings
On the decision to go public with dual class stock Arugaslan, Cook, and Kieschnic, 2010	6600 U.S. IPOs, 1980-2008	Authors find that managers do not prefer DCS to necessarily invest in long-term projects; rather, it is done mainly to retain control of the company. Insiders do this to diversify their own portfolios and maintain control.
The Entrenchment Problem, Corporate Governance Mechanisms, and Firm Value Zerni, Kallunki and Nilsson, 2010	1,171 firm-year observations Swedish public firms, 2000-2006	Sweden has the highest percentage of firms issuing dual-class shares (Faccio and Lang 2002). Negative effects of enlarged wedge. Results: both stock market valuation of free cash flow and the dividend payout ratio of a firm increase with major shareholder and board member ownership of cash-flow rights.
Agency Problems at Dual-Class Companies Masulis, Wang and Xie, 2009	150 U.S. Dual-Class firms, 1995-2003	As divergence widens between insider voting and cash flow rights, corporate cash holdings are worth less to outside shareholders, CEOs receive higher compensation, managers make shareholder value destroying acquisitions more often, and capital expenditures contribute less to shareholder value.
Concentrated control and corporate value: a comparative analysis of single and dual class structures in Canada Smith, Amoako-Adu and Kalimpalli, 2009	Canadian TSX firms, DCS, single class closely held ownership, widely held firms, 3 periods: 1998, 2000 and 2002	To examine the empirical relationship between corporate value and three distinct ownership structures using data from Canada: dual class firms, single class closely-held firms and widely-held firms: to test for the impact of concentrated control on corporate value using either dual class or single class closely-held ownership structure. The

Author(s), title, year,	Sample, period, country	Main Findings
		empirical results show that after controlling for size, financial leverage, percentage of outside directors and industry differences, dual class companies sell at a significant discount compared to closely-held single class companies. Dual class structure in Canada lessens corporate value because it lowers shareholder and manager alignment and increases agency problems. Results also outline that pyramid structure has a negative impact on value in both dual class and single class closely-held companies.
How are U.S. family firms controlled? Villalonga and Amit, 2009	515 U.S. firms (including 210 U.S. founding families owned corp.), 1994-2000	In large U.S. corporations, founding families are the only blockholders whose control rights on average exceed their cash-flow rights. Indirect ownership through trusts, foundations, limited partnerships, and other corporations is prevalent but rarely creates a wedge (a pyramid). The primary sources of the wedge are dual-class stock, disproportionate board representation, and voting agreements. Each control-enhancing mechanism has a different impact on value. Result find that the impact of control-enhancing mechanisms on firm value depends on the mechanism used: dual-class stock and disproportionate board representation have a negative impact, while pyramids and voting agreements have the opposite effect.

Author(s), title, year,	Sample, period, country	Main Findings
Family values: Ownership structure, performance and capital structure of Canadian firms King and Santor, 2008	613 Canadian TSX Firms, 1998-2005	Freestanding family owned firms with a single share class have similar market performance than other firms based on Tobin's q ratios, superior accounting performance based on ROA, and higher financial leverage based on debt-to-total assets. By contrast, family owned firms that use dual-class shares have valuations that are lower by 17% on average relative to widely held firms, despite having similar ROA and financial leverage.
Large Shareholder Entrenchment and Performance: Empirical Evidence from Canada Bozec and Laurin, 2008	1906 observations from ± 400 Canadian family closely-held listed firms, 1995-1999.	To assess the impact of separation (voting rights being greater than the cash flow rights) on various performance metrics while controlling for situations when the large shareholder has (1) the opportunity to expropriate (high free cash flows in the firm) and (2) the incentive to expropriate (low cash flow rights). Results indicate that firm performance is lower when large shareholders have both the incentives and the opportunity to expropriate minority shareholders. Other results show that the separation between voting rights and cash-flow rights negatively affects firm performance when the dominant shareholder gains effective control of the firm, when he also has less than 25 percent of the cash-flow rights, and when the firm that he controls has above average free cash-flows.

Tableau 3 : Empirical studies finding favorable or neutral impacts of dual class share firms (DCS) on firm value or investor interests according to title, authors, year of publication, sample², period, country and main findings (n=18)

Title, author(s), year	Sample, period, country	Main Findings
Sticking Around Too Long? Dynamics of the Benefits of Dual-Class Structures Kim and Michaely, 2018	142576 U.S. single-class firm years observations and 8445 U.S. multi-class firm years observations (921 DCS firms), 1971-2015	Finding suggests that young dual-class firms have higher value than young single-class firms. However, as they mature, dual-class firms experience 7 percent to 9 percent greater declines in Tobin's Q than do single-class firms. As firms mature, operating margins and labor productivity deteriorate significantly more for dual-class than single-class firms, other things held constant. These findings are consistent with the prediction that adopting a dual-class structure becomes costlier to minority shareholders as firms mature.
Perpetual Dual-Class Share Stock: The Case Against Corporate Royalty Jackson R., 2018	157 U. S. multi-class firms of which 71 have sunset provisions, that held IPOs between 2001 to 2016.	In the IPO year and 1-2 years after, perpetual multi-class firms do not have significantly different valuations from multi-class firms with sunset provisions. Beginning 3-6 years and continuing 7 and more years after IPO, perpetual multi-class firms have a 37% discount compared to multi-class firms with sunset provisions, a result significant at the 1% level. Over the life cycle of multi-class firms, those without sunset provisions tend to underperform those with sunset provisions. By 7 years after IPO, perpetual multi-class firms exhibit valuations that are significantly lower than firms with sunset provisions.

² Inclusion or exclusion criteria of all samples are unspecified in the table.

Title, author(s), year	Sample, period, country	Main Findings
The life cycle of Dual Class Firms Cremers, Lauterbach, and Pajuste, 2018	8 555 U.S. single-class and 667 U.S. multi-class firms that held an IPO between 1980-2015.	Examination of an extensive matched sample of U.S. dual and single class firms in 1980-2015 from the time of their IPO, and document that the valuation difference between dual and single class firms varies over their life cycle. On average, around the time of the IPO, dual class firms have higher valuations than single-class firms. Over time, this valuation premium tends to dissipate, whereas the difference between voting and equity stakes of the controlling shareholders of dual class firms (the "wedge") tends to increase. Further tests examine firm survival and the desirability of a sunset provision for dual class structures.
The power of control: the acquisition decisions of newly public dual-class firms Adhikari, Nguyen and Sutton, 2018	113 U.S. IPO dual class share and 1 266 U.S. IPO single class share	Results show that dual-class IPO firms make relatively more acquisitions in innovative industries and are less likely to pay with stock as compared to single-class IPO firms. The reluctance of dual-class firms to pay with stock is positively related to the wedge between the insiders' voting rights and cash-flow rights. Results also show that newly-public dual-class acquirers perform better in the long-run than newly-public single-class acquirers, mainly due to dual-class acquisitions in innovative industries. These results suggest that the dual class structure may enable newly-public firms to make better M&A decisions after going public.

Title, author(s), year	Sample, period, country	Main Findings
Controlling-Enhancing Mechanisms: Loyalty Shares and Multiple-Voting Shares in Italy Croci, 2018	37 Italian listed firms with loyalty shares (attributing long-term holders increased voting rights) and multiple voting shares, 2015 - 2018	<p>The empirical analysis shows that family firms are the most likely (and almost only) users of these loyalty shares (Control enhancing mechanism, CEM). While aggregate institutional investor ownership does not discourage the introduction of loyalty shares and multiple voting shares, directors nominated from minority lists decrease the probability of their adoption. There is a negative reaction around the day of the announcement of the Law that allowed loyalty shares in 2014, which is consistent with the view that CEMs strengthen the position of the controlling shareholders vis-à-vis minority investors. However, this reaction is not correlated with their adoption at firm level, and the average stock price reaction is positive when firms announce loyalty shares. Looking at ownership-diluting events like acquisitions and seasoned equity orderings, there is no supporting evidence that loyalty shares are introduced to preserve family control in times of external growth or financing. Finally, loyalty shares are negatively associated with the probability to receive a takeover other as well as delistings.</p>

Title, author(s), year	Sample, period, country	Main Findings
Dual Class Firm Structure and Innovation Baran, Forst and Via, 2018	U.S. Dual-class shares firms, 2000-2008.	Findings establish that disproportionate insider control indeed enhances firms' innovative output. However, this benefit accrues primarily to financially constrained firms, i.e., firms who depend on the access to public capital markets to further their innovative strategy. There are evidence for an enhanced role of key executives in the innovation process of dual class firms. This finding directly relates to the argument in favor of dual class firms, articulated for instance by NASDAQ (2017) that "dual class structures allow investors to invest side-by-side with innovators." In addition, results outline that positive effects of disproportionate insider control on innovativeness and firm value are not constant and diminish rather quickly within the first five years post-IPO. The declining innovativeness over time is consistent with the important role of specific key personnel for the innovativeness of dual class firms, whose impact diminishes as their incentives and involvement changes post-IPO.
Putting the spotlight on Spotify: why have stocks with unequal voting rights Melas, 2018 Should equity indexes include stocks of companies with share classes having unequal voting rights ? MSCI, 2018	2493 index U.S. constituents of which 253 DCS November 2007 – august 2017	Research shows that unequal voting stocks in aggregate outperformed the market over the period from November 2007 to August 2017, and that excluding them from market indexes would have reduced the indexes' total returns by approximately 30 basis points per year over our sample period. Examination of the characteristics of unequal voting stocks across global equity markets to determine what was behind their outperformance. However, we find that these common characteristics only partially explained performance, while stock-specific effects had a greater impact.

Title, author(s), year	Sample, period, country	Main Findings
The Family Advantage The Sustainable Outperformance of Canadian Family- Controlled Public Companies Katsoras, Joli-Coeur and Duquette, 2018	NBC Index includes 43 Canadian family- controlled firms (27 of the 43 NBC Index sample have dual class shares, 63 % of the sample), 2017.	A research from the National Bank of Canada about listed Canadian family firms (Katsoras, 2018) presents the National Bank of Canada listed Canadian family firms index (NBC Index). This Index tracks and measures the performance of publicly-listed Canadian family-controlled businesses versus the performance of the S&P/TSX composite Index. Results highlighted by the NBC Index demonstrate the exceptional outperformance of Canadian family-controlled companies compared to widely-held Canadian public companies. With the exception of three years, annual performance from 2005 to 2018 of the NBC Canadian Family Index was always superior to S&P/TSX Composite Total Return Index.
The Long-Term Survival of Family Business Fullbrook, 2018, Clarkson Centre for Board Effectiveness, Rotman School of Management, Un. of Toronto	300 Canadian listed firms, 2017 (including family firms)	From historical data on public issuers in Canada from 1969 to 2017 and compared outcomes for family businesses against non-controlled companies: Canadian publicly-listed family businesses show significantly higher likelihood of long-term survival, more stability in the CEO position and lower stock price volatility compared to non-controlled companies. Average annual volatility for our family business sample is 36% over 33 years, compared to 51% for NCs over 35 years.
Multi-Class stock and firm value - Does Multi- Class Stock Enhance Firm Performance? Morey, 2017	U.S. Incorporated Russell 1 629 single-class firms and US 133 multi- class firms, 2007- 2015	A multi-class structure, measured by the percentage of the company's vote controlled by holders of superior-voting shares, does not affect ROIC, positively or negatively. To avoid the pitfalls of Tobin's Q, the long term company performance was measured with average annual return on invested capital (ROIC).

Title, author(s), year	Sample, period, country	Main Findings
<p>The dual class premium: A family affair Anderson, Ottolenghi, and Reeb, 2017</p>	<p>2 379 U.S. listed firms (24,724 firm-year observations), 2001 -2015</p>	<p>Dual class shares appear to be a manifestation and continuance of family ownership. Nearly 90% of dual class firms are also family firms. Dual class firms exhibit valuation discounts only when family owners hold the super voting shares – about a 12% discount. In the absence of family owners, dual class shares exhibit valuation premiums of 20%. Outside investors appear to buy shares in dual class family firms at substantial discounts relative to other organizational forms. These investors however, earn greater excess returns on their holdings – about 350 basis points more per year than investors in the benchmark group (single class nonfamily firms). Investors in dual class family firms appear to require and earn a premium for holding shares in this organizational form. Overall, our analysis indicates that dual class structures provide both costs and benefits to the firms. On the cost side, entrepreneurs and their families – as originators of two classes of common equity – appear to bear significant discounts when selling their shares to the investing public and bear a high level of negative media attention for continuing to hold super-voting shares. On the benefit side, dual class shares appear to be a structure that large, concentrated shareholders deploy to maximize shareholder wealth.</p>

Title, author(s), year	Sample, period, country	Main Findings
Growth opportunities, short-term market pressure, and dual-class share structure Jordan, Kim and Liu, 2016	US Dual-class and single class firms listed at least 3 years, 1991-2011. Firms matched yearly according to DCS characteristics	DCS firms face lower short-term market pressure than single-class firms and tend to have more growth opportunities (higher sales growth and R&D intensity). DCS structure increases the market valuation of high growth firms. An evaluation of a sample of dual-class share unifications finds that growth opportunities decline while short-term market pressure increases after share unifications.
Dual-class shares, external financing needs, and firm performance Nuesch, 2016	132 listed Swiss firms (1 073 firm-year observations), 1990- 1999	DCS neither harm nor benefit firm performance on average. DCS increase firm performance if the firm requires external finance and decrease firm performance if the firm does not require external finance.

Title, author(s), year	Sample, period, country	Main Findings
Disproportionate insider control and board of director characteristics Baran and Forst, 2015	189 U.S. dual-class firms, 2000 to 2012	<p>Some of the negative effects of disproportionate control on firm value come from the indirect effect of disproportionate insider control on board quality, which in turn negatively affects performance.</p> <p>Rather than instituting stronger boards of directors to self-bond against the agency problems resulting from disproportionate control, insiders appear to use their enhanced voting rights to put in place weaker boards exacerbating their entrenchment.</p> <p>Strong takeover protection imparted by a dual-class structure may reduce firm value by insulating poorly performing firms from the market for corporate control. Alternatively, the antitakeover effects from dual-class structures may have a positive impact on firm value by enabling a long-term focus and enhancing firms' bargaining power in takeover negotiations.</p>
Agency Conflicts, Controlling Owner Proximity, and firm values: An analysis of dual-class firms in the United States Hoi and Robin, 2010	209 US dual class firms and corresponding control sample, 2000	<p>Results present robust evidence that dual-class firm value is negatively related to controller proximity. Dual-class structure overall is unrelated to firm value, because despite its negative effects with high proximity controllers there appear to be benefits when controller proximity is low (when the largest shareholder is an outsider). Other findings from a pooled regressions using dual-class and control firms indicate that by themselves neither incentive (dual-class status) nor opportunity (proximity) affects firm value. It is the interaction of these two variables that influences firm value.</p>

Title, author(s), year	Sample, period, country	Main Findings
Impact of Restricted Voting Share Structure on Firm Value and Performance Jog, Zhu, and Dutta, 2010	Canadian listed firms, 1996 to 2005.	Results do not show that restrictive voting share (RVS) structures lower firm value, operating performance, or stock performance relative to non-RVS firms in Canada. Also, they do not find evidence of shareholder value expropriation in key financial decisions, such as mergers and acquisitions and dividend payments.
One Share-One Vote: The Empirical Evidence Adams and Ferreira, 2008	Review of the empirical literature on disproportional ownership published between 1970 to 2007.	<p>To address the empirical relevance of such possibilities, much more work is needed. To determine whether the loss in value for outside shareholders is greater or smaller than the gain in private benefits for controlling shareholders, one would need to study the effects of deviating from one share-one vote on the value of private and security benefits simultaneously. The existing literature on the value of control does not investigate the effect of the degree of ownership disproportionality on the control premium, which is necessary for answering the question of whether deviations from one share-one vote destroy total shareholder value.</p> <p>To answer the (perhaps more important) question of whether ownership disproportionality leads to a higher cost of capital and thus lower or inadequate investment, more work examining the impact of deviation mechanisms on the decision to raise equity capital is needed. If they are not allowed to separate votes from cash flow rights, controlling shareholders, in particular entrepreneurs, may choose to restrict the amount of public equity capital they use. Thus, the cost of capital, as perceived by controlling shareholders, may be either higher or lower depending on the availability of control-enhancing mechanisms.</p>

Title, author(s), year	Sample, period, country	Main Findings
Extreme Governance: An Analysis of Dual-Class Firms in the United States Gompers, Ishii and Metrick, 2010	U.S. 6345 to 7609 single-class firms and 362 to 504 multi-class firms, 1998-2002	Results show that firm value is positively associated with insiders' cash-flow rights (firms have higher value) and negatively associated with insiders' voting rights (firms have lower value), and negatively associated with the wedge between the two (firms has lower value). The strongest results come from the separation sample, where insiders have voting control but less than 50% of the cash-flow rights. For these firms, all the evidence supports the positive effect of cash flow on valuation.



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