THE DEVELOPMENT AND PERFORMANCE OF REITs IN HONG KONG

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ABSTRACT

Hong Kong is one of the most dynamic commercial property markets in Asia. With the recent development of REITs in Asia, HK-REITs have become an important property investment vehicle in Hong Kong since 2005. This paper assesses the significance, risk-adjusted performance and portfolio diversification benefits of HK-REITs in a mixed-asset portfolio in Hong Kong over 2005-2008. The impact of the global financial crisis on HK-REITs and the ongoing strategic development of HK-REITs are also assessed. HK-REITs are seen to deliver strong risk-adjusted returns and to have been robust during the GFC with superior risk-adjusted returns to other listed asset classes, but some loss of diversification benefits was also evident in the GFC.

Keywords: Hong Kong, Asia REITs, HK-REITs, risk-adjusted returns, portfolio diversification, global financial crisis.

INTRODUCTION

International property investment has taken on increased importance in recent years. In particular, this has seen the property markets in Asia take on a more significant role in portfolios, given the strong economic growth and improved property market maturity and transparency in the Asian property markets in recent years (Chin et al, 2006; JLL, 2008a). A number of the major global property fund managers now have significant Asia property portfolios in their global property mandates. This includes ING, RREEF, UBS, LaSalle and Pramerica.

In particular, Hong Kong is a major developed property market in Asia, with a sophisticated commercial property market and financial market. This has been characterised by Hong Kong's integration with the China economy, a focus on a services-oriented economy and an increased role by Chinese companies on the Hong

Kong stockmarket. This has seen Hong Kong having a solid growth platform for the longer term, as well as being a major international financial hub (JLL, 2008b).

Part of this growth and maturity in the Asian property markets has been the establishment of REITs in Asia, which have expanded rapidly since being established in 2001. At June 2009, there were 101 REITs in Asia across Japan, Singapore, Hong Kong, Malaysia, Taiwan, South Korea and Thailand; with domestic and pan-Asia portfolios. This saw Asian REITs with a market capitalisation of over US$54 billion, accounting for 14% of the global REIT market capitalisation at June 2009 (Macquarie Securities, 2009). Within this Asia REIT context, Hong Kong established a REIT market (HK-REITs) in November 2005, with 7 HK-REITs established by June 2009. Both Hong Kong and China properties are included in these HK-REIT portfolios.

Given the significance of Hong Kong as a gateway to China, its global financial stature and the increased focus by international investors on the Asian property markets, it is important to assess the significance and performance of HK-REITs. This is further reinforced by the traditional investor focus of listed property companies on the Hong Kong stockmarket, being the world's largest listed property market; and hence HK-REITs providing another important source of listed property exposure in Hong Kong. The purpose of this paper is to assess the significance, risk-adjusted performance and portfolio diversification benefits of HK-REITs in a mixed-asset portfolio in Hong Kong over 2005-2008. Sub-period analyses are also conducted to assess the impact of the global financial crisis (GFC) on the investment dynamics of HK-REITs. Issues for the ongoing strategic development of HK-REITs are also assessed.

SIGNIFICANCE OF COMMERCIAL PROPERTY IN HONG KONG

Hong Kong has been a key player in the growth in the Asian economies in the last ten years, particularly through its ongoing integration with the China economy. Hong Kong is also seen as one of the most globally competitive business environments, being ranked #12 globally and #2 in Asia (WEF, 2009). With the services sector accounting for 92% of GDP, this has seen significant growth in the financial markets in Hong Kong. This sees Hong Kong having the 7th largest stockmarket globally (US$1.8 trillion at June 2009), only exceeded by the Tokyo and Shanghai stockmarkets (US$3.2 trillion and US$2.3 trillion respectively) in Asia (WFE, 2009).

Whilst not experiencing the high levels of economic growth seen in China, India and Vietnam, Hong Kong has seen significant growth in recent years. The impact of the global financial crisis has been evident across Asia including Hong Kong, with this economic uncertainty resulting in weak domestic consumption and a cautious economic outlook (CBRE, 2009b; JLL, 2009a). Importantly Hong Kong is seen as one of the most transparent property markets (#9 globally), as well as being the most transparent property market in Asia, along with Singapore (JLL, 2008a).

With over 90 million ft^2 of office space in the business districts of Central, Wanchai and Tsimshatsiu (JLL, 2006), grade A office rents in Hong Kong (US$9.72 psf/month) are typically only exceeded in Asia by Tokyo (US$11.45 psf/month) (CBRE, 2009b). The GFC has seen reduced office space requirements and reduced tenant demand, with office vacancy rates at Q3:2009 being 5.5% (JLL, 2009b).

Hong Kong has the world's largest listed property companies sector, accounting for 23% of listed property companies globally and 43% in Asia. This sees Hong Kong having the two largest property companies globally (ie: Sun Hung Kai (#1), Cheung Kong (#2)), as well as seven of the top twelve property companies globally being in Hong Kong (Macquarie Securities, 2009). Many of these Hong Kong property companies have both a Hong Kong and China mandate. Hong Kong property companies has been the traditional property investment vehicle to obtain listed property exposure, similar to all other countries in Asia, with HK-REITs only having been established in November 2005.

Globally, Hong Kong has been a major focus for commercial property transactions in recent years.With US$14.4 billion in transactions in 2007, Hong Kong was the 4th most active market in Asia and the 11th most active market globally; with local property investors being the dominant players (accounting for 82% of transactions). This activity saw Sino Land (#39), Wharf (#43) and Sun Hung Kai (#65) being in the top 100 property investors globally, as well as Hong Kong having 13 of the top 500 property transactions globally in 2007 (Real Capital Analytics, 2009). Whilst the GFC has impacted the level of Hong Kong commercial property activity in 2008 (40% decrease in transaction value), Hong Kong was still the 5th most active market in Asia (US$8.7 billion) and the 15th most active market globally; largely supported by local property investors (89%). This activity saw Champion REIT (#43), China Resources (#52) and Henderson Land (#92) being in the top 100 property investors globally, as well as Hong Kong having 9 of the top 500 property transactions globally in 2008 (Real Capital Analytics, 2009).

Most of the previous property research regarding Hong Kong commercial property has focused on Hong Kong property companies, including linkages between the Hong Kong listed and direct property markets (eg: Chau et al, 2001; He and Webb, 2000; Newell and Chau, 1996; Newell et al, 2004; Schwann and Chau, 2003; Tse and Webb, 2000), Hong Kong property company performance (eg: Chau et al, 2003; Newell et al, 2007) and the role of Hong Kong property companies in a pan-Asia or global property company portfolio (eg: Liow, 2007, 2008; Liow and Adair, 2009; Liow and Sim, 2006; Newell et al, 2009; Wilson et al, 2007); as well as the dynamics of the Hong Kong direct property market (eg: Brown and Chau, 1997; Chau, 1997; Ganesan and

Chiang, 1998; Newell et al, 1996). The only research as yet concerning HK-REITs assessed the general strategic development of REITs in Asia (Ooi et al, 2006) and the role of China property in a specific HK-REIT (ie: GZI) (Quek and Ong, 2008). No empirical analysis regarding the role of HK-REITs in a portfolio has yet been published; this empirical analysis of HK-REITs being the focus of this paper.

DEVELOPMENT OF REITs IN HONG KONG

With REITs established in Asia in September 2001, HK-REITs were first established in November 2005 (Link REIT); being delayed by one year due to legal challenges regarding the composition of the Link REIT property portfolio. This saw HK-REITs established after REITs in all other current REIT markets in Asia; ie: Japan (2001), Singapore (2002), Thailand (2003), South Korea (2004), Taiwan (2005) and Malaysia (2005) (CBRE, 2009a). The regulatory body, the Hong Kong Securities and Futures Commission (HKSFC), issued a REIT code in August 2003 (HKSFC, 2003), updated in 2005 and 2007 for the formal regulatory operation of HK-REITs. Further regulatory changes to the management of HK-REITs were subsequently made to encourage the growth and investor attractiveness of HK-REITs; this concerned increasing the maximum gearing levels from 35% to 45%, allowing international property and new property sectors in HK-REIT portfolios, and allowing new strategies/mandates post-IPO. Table 1 lists full details regarding the current regulatory structure and characteristics of HK-REITs. This has seen HK-REITs now rated as the #2 REIT market in Asia for overall potential and for regulatory support; only exceeded by REITs in Singapore (Trust, 2009). There were seven (7) HK-REITs listed on the Hong Kong Stock Exchange at June 2009. With all other REIT markets in Asia being tax transparent, this lack of tax transparency by HK-REITs has been an impediment to the development and institutional investor acceptance of HK-REITs.

Table 1: Regulatory structure and characteristics of Hong Kong REITs: June 2009

Management:	Both external manager and internal manager allowed
Property investments:	100% of portfolio must be property; held for at least two years; no vacant land; investment in uncompleted units in a building is limited to 10% of REIT net asset value
Overseas investment:	Yes
Property development:	No
Gearing:	Limited to 45% of total asset value
Distribution:	At least 90% of net income after tax (no depreciation) is to be distributed
Capital gains tax:	Not applicable
Stamp duty:	3.75% for value exceeding HK$6.7 million
Tax transparency:	No
Withholding tax:	Not applicable
Valuations:	Annual valuations required
Regulatory body:	Hong Kong Securities and Futures Commission

Sources: Authors' compilation from CBRE(2009a), EPRA(2008), Trust(2009)

Table 2 highlights the significance of HK-REITs in an Asian and global REIT context at June 2009. These seven HK-REITs, with a total market cap of US $8 billion, saw the Hong Kong REIT market ranked as #9 of the 21 global REIT markets and #3 of the seven Asia REIT markets. While the Asia REIT markets are dominated by the Japan REIT market (55%) and Singapore REIT market (24%), HK-REITs account for 14% of the Asia REIT markets (Macquarie Securities, 2009). Similarly, while J-REITs and S-REITs account for 8 of the top 10 Asia REITs, the Link REIT in Hong Kong is the second largest REIT in Asia and Champion REIT being the 9^{th} largest REIT in Asia, as well as the Link REIT being the 18^{th} largest REIT globally (APREA, 2009).

Table 2: Significance of Asian REITs: June 2009

Country	Number of REITs	Market capitalisation (US$)	Percentage of Asia market	Percentage of global market	World ranking (by $)
Japan	41	$30B	55.4%	7.5%	4
Singapore	20	$13B	23.5%	3.2%	7
Hong Kong	**7**	**$8B**	**14.1%**	**1.9%**	**9**
Taiwan	8	$1.6B	3.1%	0.4%	13
Malaysia	13	$1.3B	2.4%	0.3%	14
South Korea	6	$0.5B	0.9%	0.1%	19
Thailand	6	$0.3B	0.6%	0.1%	20
Total Asia	**101**	**$54B**	**100.0%**	**13.5%**	
Total Global	**506**	**$399B**		**100.0%**	

Source: Authors' compilation from Macquarie Securities (2009)

However, like most global REIT markets, the HK-REIT market was adversely impacted by the GFC in 2008-09 (see Table 3); although the impact on HK-REITs was less evident than that seen in the larger Asia REIT markets in Japan and Singapore and the major mature global REIT markets of the US, Australia and UK (see Table 3: panel A and panel B for REIT performance in last year and last three years respectively). To further illustrate the impact of the GFC, the decline in HK-REIT market cap has been significant. This saw the peak-to-trough (over January 2008 – October 2008) market cap for HK-REITs drop by 41% (APREA, 2009). Signs of REIT market recovery have also been evident in most REIT markets in Q3: 2009, including the HK-REIT market (see Table 3: panel C). This has also seen the trough-to-peak (over October 2008 – October 2009) market cap for HK-REITs increase by 66% (APREA, 2009). The dynamics of this performance of HK-REITs in the GFC will be examined more fully in the empirical results and discussion section of this paper.

Table 3: Impact of global financial crisis of REIT performance

Panel A: June 2008 – June 2009 (annual return)		
Japan: -18%	Hong Kong: -5%	Singapore: -38%
Malaysia: -1%	Taiwan: -2%	South Korea: -4%
Thailand: 0%		
US: -44%	Australia: -52%	UK: -53%
France: -33%	Netherlands: -31%	Canada: -32%
Global: -41%		
Panel B: June 2006 – June 2009 (average annual return)		
Japan: -6%	Hong Kong: 3%	Singapore: -2%
US: -19%	Australia: -21%	
France: -5%	Netherlands: -4%	Canada: -5%
Global: -17%		
Panel C: July 2009 – September 2009 (Q3: 2009 return)		
Japan: 11%	Hong Kong: 9%	Singapore: 34%
US: 35%	Australia: 43%	
France: 45%	Netherlands: 34%	Canada: 33%
Global: 33%		

Sources: Macquarie Securities (2009), Standard & Poors (2009)

In particular, Table 4 provides the property profile of the various HK-REITs at June 2009. Several of these HK-REITs have been established by leading property companies in Hong Kong; eg: Prosperity REIT (Cheung Kong), Champion REIT (Great Eagle) and Sunlight REIT (Henderson Land). These property portfolios cover the office, retail, industrial, hotel, residential and carpark sectors. Two HK-REITs provide 100% China property in their portfolios (ie: GZI REIT, RREEF CCT REIT). While no new HK-REITs have been listed since June 2007, this is largely attributable to the global financial crisis. Several local players have deferred listing a HK-REIT, pending future improved property market conditions (CBRE, 2009a).

Table 4: Property profile of Hong Kong REITs: June 2009

REIT	Date listed	Market cap (US$)	Asia REIT rank	Property sectors in portfolio
Link REIT	Nov 2005	$4.8B	#2	Retail, carpark
Champion REIT	May 2006	$1.5B	#9	Office, retail
Regal REIT	March 2007	$0.5B	#31	Hotel
GZI REIT	Dec 2005	$0.4B	#44	Office, retail
Sunlight REIT	Dec 2006	$0.3B	#46	Office, retail
Prosperity REIT	Dec 2005	$0.2B	#64	Office, retail, Industrial
RREEF CCT REIT	June 2007	$0.2B	#65	Office, retail

Sources: Authors' compilation from APREA (2009), CBRE (2009a) and various annual reports

In the GFC, HK-REITs have not had the refinancing pressures seen by REITs in many other markets (eg: US, UK, Australia). This reflects the lower gearing by HK-REITs, with most loan facilities not maturing until 2011. These HK-REIT gearing levels ranged from 24% (Link REIT) to 41% (Sunlight REIT), generally significantly below the maximum gearing level allowed (45%), as well as being significantly below the average gearing levels seen in mature REIT markets; eg: US (49%) and Australia (36%) (CBRE, 2009; NAREIT, 2009; PIR, 2009). Several HK-REITs have also been able to successfully refinance their debt exposure; eg: US$350 million by Link REIT, US$520 million by Sunlight REIT. Current high HK-REIT yields have seen difficulties in acquiring new assets for yield enhancement. This has resulted in recent HK-REIT priorities being tenant retention and asset enhancement strategies to drive distribution per unit (DPU) growth (CBRE, 2009a). For benchmarking purposes, HK-REIT performance indices are available from a variety of index providers, including S&P, GPR and Hang Seng.

Given the recent establishment of REITs in Asia, only limited property research has been conducted in this increasingly important area. This includes Chiang et al (2008), Kutsuna et al (2008), Lin (2007), Ooi et al (2006), and Quek and Ong (2008); largely concentrating on developmental and IPO aspects of REITs in Asia (eg: Japan). No property research has been done as yet on the performance analysis of HK-REITs.

Overall, whilst HK-REITs only account for 3% of the listed property exposure on the Hong Kong stockmarket, they do provide investor choice regarding their listed property exposure and accessing investment properties in both the Hong Kong and China property markets. This takes on even more investor significance, given that a REIT market is yet to be established in China. The subsequent sections of this paper will assess the risk-adjusted performance and portfolio diversification benefits of HK-REITs in a portfolio over 2005-2008, as well as assessing the impact of the GFC on HK-REIT performance.

METHODOLOGY

Data sources

Monthly total returns were assessed over the period of December 2005 – December 2008 for HK-REITs, stocks, property companies and bonds; this being the full period of HK-REITs being established. The GPR total return series for HK-REITs was used, due to its recommended suitability for evaluating both overall performance and portfolio performance (Serrano and Hoesli, 2009). The GPR return series uses the standard index construction procedures and rules for the various commercially available financial series (eg: S&P, FTSE etc). With three HK-REITs established by December 2005, this sees three HK-REITs used initially, increasing to seven HK-REITs by June 2007; see Table 4. The equivalent Hang Seng indices for the overall Hong Kong stockmarket and property companies sectors were obtained from Datastream. Direct property was not considered, due to the lack of an institutional-grade property performance benchmark (eg IPD) for Hong Kong.

Statistical analysis

For the various HK-REIT, stock, property company and bond series, risk-adjusted total returns were assessed over December 2005 – December 2008. Average annual returns were calculated as the annualised average monthly return. Risk-adjusted returns were assessed using the reward-to-risk ratio and Sharpe ratio. Mixed-asset portfolio diversification benefits were assessed using correlation analysis. The full time period of December 2005 – December 2008 was also broken down into two sub-periods of December 2005 – September 2007 (pre-GFC) and October 2007 – December 2008 (during GFC) to assess the impact of the global financial crisis on the HK-REIT investment dynamics. October 2007 was treated as the starting period for the GFC.

HK-REIT PERFORMANCE ANALYSIS

Risk-adjusted returns

Table 5 presents the risk-adjusted performance analysis for HK-REITs over December 2005 – December 2008. HK-REITs (3.48% p.a.) out-performed the overall stockmarket (2.05% p.a.) and the property companies sector (1.02% p.a.), with the risk level for HK-REITs (27.59%) only being marginally more than shares (26.70%) but less than the risk for property companies (29.40%). On a risk-adjusted basis (reward-to-risk ratio and Sharpe ratio), HK-REITs out-performed both Hong Kong shares and property companies. Bonds were the best-performing asset class over this period (10.59% p.a.), reflecting strong bond performance (at low risk), and the impact of the GFC on the various listed asset classes in Hong Kong and the flight to quality and liquidity in a volatile investment environment.

Table 5: HK-REIT performance analysis: Dec 2005 – Dec 2008

Sector	Average annual return	Annual risk	Reward-to-risk ratio	Sharpe ratio
HK-REITs	3.48%	27.59%	0.13	0.00 (2)
Shares	2.05%	26.70%	0.08	-0.05 (3)
Property companies	1.02%	29.40%	0.03	-0.08 (4)
Bonds	10.59%	8.23%	1.29	0.87 (1)

Diversification benefits

Table 6 presents the HK-REIT correlation analysis over December 2005 – December 2008. HK-REITs were less correlated with the stockmarket (r=0.40) than property companies with the stockmarket (r=0.86), reflecting greater portfolio diversification benefits by HK-REITs than property companies. Part of this demonstrated portfolio diversification benefit can possibly be attributable to the smaller size of the HK-REIT market, and the higher expected co-movement by the much larger property companies sector with the Hong Kong stockmarket. HK-REITs and property companies showed some degree of diversification benefits (r=0.47), reflecting their different property characteristics in a portfolio. HK-REITs also saw portfolio diversification benefits with bonds (r=0.06); to a similar degree to that seen by shares and property companies.

Table 6: HK-REIT correlation analysis: Dec 2005 – Dec 2008

	HK-REITs	Shares	Property companies	Bonds
HK-REITs	1.00			
Shares	0.40*	1.00		
Property cos.	0.47*	0.86*	1.00	
Bonds	0.06	-0.12	-0.03	1.00

***:** significant correlation (P<5%)

Impact of the global financial crisis

Table 7 presents the risk-adjusted performance analysis for HK-REITs for these two sub-periods. The impact of the global financial crisis is clearly evident across all asset classes, including HK-REITs. Importantly, HK-REITs were the least affected in comparison with Hong Kong shares and property companies; both in terms of reduced performance and increased risk. In particular, HK-REITs went from delivering the least returns pre-GFC (25.31%) to delivering the best returns during the GFC (-21.85%), excluding bonds. Similarly, HK-REIT risk only increased by 18% (25.23% to 29.86%), whilst the risk for shares increased by 190% (12.36% to 35.84%) and the risk for property companies increased by 124% (17.07% to 38.29%). This saw HK-REITs having the highest risk levels pre-GFC and the lowest risk levels during the GFC; highlighting the robustness of the HK-REIT sector during the GFC. Given the strong performance of bonds and the typical expectation of REITs behaving like bonds due to their high dividend payout, this lesser performance of HK-REITs (versus bonds) reflects the impact of the lack of tax transparency for HK-REITs, as well as the significant contribution of property to the Hong Kong stockmarket.

As such, this resulted in HK-REITs delivering the best risk-adjusted returns amongst the three listed asset classes during the GFC. This robustness of HK-REITs during the GFC is important, as most REIT markets (eg: US, Australia) have been seen to significantly under-perform their equivalent stockmarkets at significantly increased risk levels during the GFC (Macquarie Securities, 2009; Newell and Peng, 2009).

Table 7: Impact of the global financial crisis on HK-REIT performance

Sector	Average annual return	Annual risk	Reward-to-risk ratio	Sharpe ratio
Panel A: Dec 2005 –Sept 2007: pre-GFC				
HK-REITs	25.31%	25.23%	1.00	0.83 (3)
Shares	43.20%	12.36%	3.50	3.14 (1)
Property companies	42.03%	17.07%	2.46	2.21 (2)
Bonds	3.78%	4.75%	0.80	-0.12 (4)
Panel B: Oct 2007 – Dec 2008: GFC				
HK-REITs	-21.85%	29.86%	-0.73	-0.81 (2)
Shares	-37.92%	35.84%	-1.06	-1.13 (3)
Property companies	-38.71%	38.29%	-1.01	-1.08 (4)
Bonds	21.39%	11.24%	1.90	1.68 (1)

Table 8 presents the inter-asset correlation analysis over these two sub-periods. HK-REITs lost a significant degree of their diversification benefit with shares over this period, with the correlation increasing from r=0.07 to r=0.52. However, this diversification benefit of HK-REITs with shares is still significantly superior to that seen for property companies with shares (r=0.88 to r=0.83). The diversification benefit between HK-REITs and property companies has also reduced during the GFC, having increased from r=0.31 to r=0.52. All listed sectors also lost some degree of their portfolio diversification benefit with bonds. This reduced portfolio diversification benefit by HK-REITs has also been evident in most other REIT markets (eg: Australia) during the GFC (Newell and Peng, 2009).

Overall, HK-REITs have shown strong risk-adjusted performance, relative to Hong Kong shares and property companies over the period of 2005-2008. This superior risk-adjusted performance has been further enhanced during the GFC; reinforcing the robustness of HK-REIT performance. However, this strong performance has been offset to some degree by HK-REITs losing some of their diversification benefits with shares during the GFC.

Table 8: HK-REIT sub-period correlation analysis

Panel A: Dec 2005 –Sept 2007: pre-GFC				
	HK-REITs	Shares	Property companies	Bonds
HK-REITs	1.00			
Shares	0.07	1.00		
Property companies	0.31	0.88*	1.00	
Bonds	-0.09	-0.11	-0.15	1.00
Panel B: Oct 2007 – Dec 2008: GFC				
	HK-REITs	Shares	Property companies	Bonds
HK-REITs	1.00			
Shares	0.51*	1.00		
Property companies	0.52*	0.83*	1.00	
Bonds	0.26	0.03	0.15	1.00

*: significant correlation (P<5%)

PROPERTY INVESTMENT IMPLICATIONS FOR HK-REITs

With Hong Kong being a dynamic and sophisticated commercial property market in Asia, the development of HK-REITs provides additional investor choice for listed property exposure on the Hong Kong stockmarket. This also complements the development of REITs in other Asian markets in recent years.

This paper has highlighted the development and added-value of HK-REITs in a portfolio; particularly the robustness of HK-REITs during the GFC. These results have significant property investment implications, both for the ongoing development of HK-REITs and the positioning of HK-REITs in an Asian and global REIT context.

In particular, the ability to include international property in HK-REIT portfolios sees flexibility for local Hong Kong investors and China investors seeking to establish HK-REITs; particularly with the REIT market in China yet to be established. With Hong Kong being seen as the second best Asia REIT market for overall potential and regulatory control, and a supportive HKSFC seeking to further revitalise the HK-REIT market as the markets emerge from the GFC, there is significant opportunity for Hong Kong to expand its role as a pan-Asia hub for REITs. This would provide investors access to property portfolios in Hong Kong and China, and potentially other areas in

Asia (as per Singapore REITs). With several Hong Kong property investors deferring the listing of their property portfolio as a HK-REIT pending improved market conditions, as well as the sheer scale and size of property developer portfolios in Hong Kong and China, future opportunities for the ongoing development of HK-REITs will be evident after Hong Kong and the other Asia markets (eg: China) emerge from the GFC.

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