

**Shading Key:**

52 week high (green = 1), low (red = 0) or shaded in-between
% 2 standard deviation move up (5%)
% 1 standard deviation move up (33%)
% 1 standard deviation move down (33%)
% 2 standard deviation move down (5%)

These estimates are based upon the last 256 daily moves of each instrument

	Closing prices 22-Jul-21	52 wk	Movement for the period				YTD	Q2 2021	Q1 2021	2020	2019	2018
			Day	Week	Month	YTD						
<b>Interest Rates</b>												
<b>Central Bank Bills</b>												
28 days	C-bill auctions on Wednesday; reported Thursday/Friday	1.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.33%	1.39%	1.39%	
60 days		2.02%	0.00%	0.00%	0.00%	-0.05%	-0.02%	-0.03%	2.07%	2.30%	2.35%	
90 days		2.00%	0.00%	0.00%	0.00%	-0.04%	-0.02%	-0.02%	2.04%	2.50%	2.51%	
182 days		4.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.55%	4.55%	4.55%	
<b>Treasury Bills</b>												
28 days		1.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.26%	1.26%	1.26%	
63 days		2.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.36%	2.36%	2.36%	
91 days		2.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.32%	2.35%	2.39%	
182 days	Tbill auctions are irregular Wednesdays	4.34%	0.00%	0.00%	0.00%	-0.07%	-0.05%	-0.02%	4.41%	4.68%	4.71%	
273 days		6.04%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.04%	6.04%	6.72%	
364 days	reported Thursday/Friday	7.20%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.20%	7.08%	7.93%	
<b>Government Inscribed Stock</b>												
GIS 2Y 2020-22	GIS auctions usually monthly	8.50%	0.00%	0.00%	0.00%	0.00%	0.46%	0.00%	8.04%			
GIS 3Y 2020-23	reported Thursday/Friday	9.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.00%			
GIS 4Y 2020-24		9.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.84%			
GIS 5Y 2020-25		9.70%	0.00%	0.00%	0.00%	0.00%	-0.16%	0.00%	9.86%			
GIS 6Y 2020-26		9.80%	0.00%	0.00%	0.00%	0.00%	-0.22%	0.00%	10.02%			
GIS 9Y 2020-29		9.90%	0.00%	0.00%	0.00%	0.00%	-1.92%	0.00%	11.82%			
GIS 10Y 2020-30		9.90%	0.00%	0.00%	0.00%	0.00%	-2.63%	0.00%	12.53%			
GIS 30Y		3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.00%	6.25%	6.25%	
<b>Kina Facility Rate</b>												
<b>Ten year Government Bond yields</b>												
United States		1.28%	0.60	-0.01%	-0.02%	-0.21%	0.37%	-0.27%	0.83%	0.91%	1.92%	2.68%
United Kingdom		0.57%	0.57	-0.04%	-0.10%	-0.18%	0.37%	-0.13%	0.65%	0.20%	0.82%	1.28%
Australia		1.19%	0.39	0.03%	-0.09%	-0.37%	0.22%	-0.26%	0.82%	0.97%	1.37%	2.32%
New Zealand		1.65%	0.81	-0.02%	-0.10%	-0.14%	0.66%	-0.04%	0.82%	0.99%	1.65%	2.37%
France		-0.08%	0.44	-0.04%	-0.09%	-0.23%	0.25%	0.17%	0.29%	-0.34%	0.12%	0.71%
Japan		0.02%	0.08	0.00%	0.00%	-0.04%	0.00%	-0.04%	0.07%	0.02%	-0.01%	0.00%
Australia	RBA Cash Rate	0.10%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10%	0.75%	1.50%
PNG CPI Index	Latest 12 mth % change	4.60%								2.90%	4.30%	4.50%
<b>Currencies</b>												
PGK/USD		0.2850	0.00	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	-2.9%	-1.2%	-4.0%
PGK/AUD		0.3873	0.59	-0.8%	1.6%	2.9%	4.7%	1.07%	1.43%	-11.7%	-0.5%	6.1%
PGK/GBP		0.2078	0.30	-0.8%	1.0%	1.7%	-0.6%	-0.87%	-0.67%	-6.6%	-4.4%	1.8%
PGK/NZD		0.4098	0.46	-0.8%	1.0%	1.4%	3.9%	0.30%	2.91%	-9.5%	-1.4%	1.5%
PGK/JPY		31.400	0.84	0.2%	0.4%	-0.6%	6.8%	-0.32%	7.52%	-7.9%	-2.7%	-6.1%
AUD/USD		0.7359	0.36	0.8%	-1.6%	-2.8%	-4.5%	-1.05%	-1.41%	9.9%	-0.7%	-9.5%
USD/JPY		110.170	0.98	0.2%	0.3%	-0.6%	6.8%	-0.32%	7.50%	-5.1%	-1.5%	-2.1%
EUR/USD		1.1794	0.24	0.2%	-0.4%	-1.1%	-4.1%	1.62%	-4.76%	9.7%	-1.9%	-4.4%
GBP/USD		1.3717	0.66	0.8%	-1.0%	-1.7%	0.7%	0.86%	0.72%	3.9%	3.4%	-5.7%
<b>Equity Indices</b>												
<b>Papua New Guinea</b>												
KSI Index		5,843.40	0.59	0.0%	0.0%	0.0%	-3.4%	-4.28%	0.93%	-3.4%	21.1%	-5.4%
KSI Home Index		13,931.40	0.43	0.0%	0.0%	2.7%	4.7%	4.65%	0.00%	1.5%	15.0%	4.8%
<b>Australia</b>												
All Ordinaries		7,658.90	1.00	1.0%	0.6%	1.6%	11.8%	8.09%	2.43%	0.7%	19.1%	-7.4%
S&P/ASX 100		6,111.50	1.00	1.0%	0.7%	1.7%	12.6%	7.86%	3.26%	-2.1%	18.9%	-6.5%
S&P/ASX 20		4,166.80	0.99	1.1%	1.0%	1.9%	15.1%	8.52%	4.94%	-1.5%	15.3%	-5.2%
S&P/ASX 50		7,149.90	0.99	1.0%	0.9%	1.8%	13.3%	7.52%	3.99%	-4.9%	19.1%	-5.9%
S&P/ASX 200 Accumulation		82,991.80	1.00	1.0%	0.9%	1.9%	15.4%	8.18%	5.26%	-1.9%	24.4%	-1.5%
S&P/ASX Midcap 50		8,980.20	0.97	1.0%	-0.5%	1.1%	8.9%	9.82%	-0.67%	14.5%	17.7%	-10.5%
S&P/ASX Small Ordinaries		3,388.20	0.98	1.3%	0.3%	0.5%	9.7%	8.07%	1.34%	6.6%	17.9%	-11.3%
S&P/ASX 200		7,386.41	1.00	1.1%	0.7%	1.5%	12.1%	7.69%	3.09%	-1.5%	18.4%	-6.9%
S&P/ASX 200 Accumulation		83,774.25	1.00	1.1%	0.7%	1.7%	14.0%	8.29%	4.26%	1.4%	23.4%	-2.8%
S&P/ASX 300		7,377.68	1.00	1.1%	0.7%	1.5%	12.2%	7.89%	3.00%	-1.1%	18.8%	-7.1%
S&P/ASX 200 Energy		8,111.90	0.65	2.5%	-1.3%	0.0%	0.7%	-2.88%	2.86%	-29.9%	18.2%	-10.8%
S&P/ASX 200 Materials		17,906.50	0.96	2.2%	-1.0%	5.7%	14.3%	8.86%	0.66%	13.4%	22.1%	-2.3%
S&P/ASX 200 Industrials		6,448.10	0.92	1.1%	-0.7%	4.2%	7.9%	5.78%	-1.83%	-14.1%	22.6%	-3.8%
S&P/ASX 200 Consumer Discretionary		3,481.60	1.00	0.5%	2.0%	2.0%	19.7%	11.09%	7.44%	8.6%	27.2%	-10.7%
S&P/ASX 200 Consumer Staples		13,514.20	0.98	0.4%	1.7%	3.7%	6.9%	5.13%	-0.80%	3.6%	18.0%	1.0%
S&P/ASX 200 Healthcare		44,734.20	0.82	-0.3%	4.1%	1.3%	6.9%	9.02%	-2.90%	3.0%	41.2%	17.3%
S&P/ASX 200 Financials		6,455.50	0.89	1.1%	1.0%	0.0%	18.7%	7.47%	11.32%	-9.0%	7.4%	-14.8%
S&P/ASX 200 Information Technology		2,087.50	0.58	0.6%	0.7%	-7.8%	-5.1%	12.10%	-11.53%	56.3%	31.8%	5.5%
S&P/ASX 200 Telecommunication Services		1,488.40	0.94	1.0%	-0.3%	2.0%	17.3%	10.59%	7.05%	0.9%	22.3%	-21.4%
S&P/ASX 200 Utilities		6,158.00	0.21	1.1%	-0.6%	1.6%	-3.8%	-5.83%	-2.64%	-21.5%	10.1%	-10.1%
S&P/ASX 200 A-REIT		1,543.40	0.86	0.3%	0.7%	-2.0%	7.0%	8.94%	-1.13%	-8.0%	14.0%	-2.1%
S&P/ASX 200 Financial-x-A-REIT		7,200.10	0.89	1.1%	1.0%	0.0%	18.7%	7.47%	11.32%	-9.0%	7.4%	-14.8%
<b>North American</b>												
DJIA		34,823.35	0.98	0.1%	-0.5%	1.8%	13.8%	4.61%	7.76%	7.2%	22.3%	-5.6%
S&P 500		4,367.48	0.99	0.2%	0.2%	2.4%	16.3%	8.17%	5.77%	16.3%	28.9%	-6.2%
NASDAQ		14,684.60	0.99	0.4%	1.0%	2.2%	13.9%	9.49%	2.78%	43.6%	35.2%	-3.9%
Toronto S&P/TSX		20,097.52	0.96	-0.1%	-0.4%	-0.6%	15.3%	7.83%	7.27%	2.2%	19.1%	-11.6%
<b>Europe</b>												
FTSE		6,968.30	0.87	-0.4%	-0.6%	-2.0%	7.9%	4.82%	3.92%	-14.3%	12.1%	-12.5%
DAX		15,514.54	0.93	0.6%	-0.7%	-0.5%	13.1%	3.48%	9.40%	3.5%	25.5%	-18.3%
CAC 40		6,481.59	0.91	0.3%	-0.2%	-2.3%	16.8%	7.26%	9.29%	-7.1%	26.4%	-11.0%
<b>Asia</b>												
Nikkei		27,548.00	0.64	0.0%	-2.6%	-4.6%	0.4%	-1.33%	6.32%	16.0%	18.2%	-12.1%
Hang Seng		27,723.84	0.57	1.8%	-1.0%	-4.0%	1.8%	1.58%	4.21%	-3.4%	9.1%	-13.6%
Shanghai		3,574.73	0.75	0.3%	0.3%	0.2%	2.9%	4.34%	-0.90%	13.9%	22.3%	-24.6%
Sensex		52,837.21	0.98	1.2%	-0.6%	0.3%	10.7%	6.01%	3.68%	15.8%	14.4%	5.9%

**Shading Key:** wei

52 week high (green = 1), low (red = 0) or shaded in-between
% 2 standard deviation move up (5%)
% 1 standard deviation move up (33%)
% 1 standard deviation move down (33%)
% 2 standard deviation move down (5%)

These estimates are based upon the last 256 daily moves of each instrument

Indices	22-Jul-21	52 wk	Movement for the period				YTD	Q2 2021	Q1 2021	2020	2019	2018
			Day	Week	Month	YTD						
MSCI AC Asia-ex-Japan* USD	656.56	0.66	1.3%	-1.5%	-2.2%	3.1%	3.60%	2.70%	25.0%	18.2%	-14.4%	
MSCI ACWI-ex-Australia* USD	366.51	0.98	0.4%	-0.4%	0.7%	12.9%	7.40%	4.59%	16.4%	26.7%	-9.4%	
MSCI ACWI-ex-Australia* TR AUD	14,001.14	0.99	-0.3%	0.9%	3.8%	19.5%	9.33%	6.33%	5.7%	28.0%	1.5%	
MSCI All Country World Index* USD	370.31	0.98	0.4%	-0.1%	0.7%	12.8%	7.39%	4.57%	16.3%	26.6%	-9.4%	
MSCI ACWI Minimum Volatility USD	2,303.61	0.97	0.2%	-0.4%	1.4%	7.1%	4.77%	1.24%	0.6%	18.5%	-3.5%	
MSCI World Net Local	6,908.81	0.98	0.3%	0.2%	1.4%	15.5%	7.58%	6.14%	13.5%	27.3%	-7.4%	
iShare Emerging Markets	53.30	0.69	0.2%	-1.3%	-2.2%	3.2%	3.39%	3.23%	15.2%	14.9%	-17.1%	
VIX Volatility S&P500	17.69	0.10	-1.2%	4.0%	10.8%	-22.2%	-18.40%	-14.73%	65.1%	-45.8%	130.3%	
<b>Commodities</b>												
Light Crude WTI Futures US\$/bbl	71.91	0.92	-2.3%	0.4%	-1.9%	48.2%	24.19%	21.93%	-20.5%	34.5%	-24.8%	
Brent Crude US\$/bbl	73.79	0.92	2.2%	0.4%	-2.3%	42.5%	18.24%	22.66%	-21.5%	22.7%	-19.5%	
Gold US\$/oz	1,809.20	0.36	0.1%	-1.1%	1.8%	-4.5%	3.26%	-9.47%	24.4%	18.9%	-2.1%	
Silver US\$/oz	25.38	0.40	0.5%	-3.8%	-2.7%	-3.9%	6.77%	-7.12%	47.4%	15.3%	-9.4%	
Copper US\$/lb	4.34	0.78	1.5%	0.3%	0.8%	23.3%	7.35%	13.54%	25.8%	6.3%	-20.3%	
Iron Ore US\$/mt	199.20	0.69	-4.6%	-6.1%	-3.4%	29.0%	35.96%	0.49%	82.0%	20.5%	-0.5%	
Malaysian Palm Oil* RM/tn	4,432	0.79	0.8%	6.8%	22.9%	13.9%	-6.87%	4.37%	28.0%	51.7%	-18.0%	
LNG *Jap/Korea US\$/mmBtu	14.28	0.68	-0.2%	10.0%	13.1%	-0.2%	86.75%	-50.91%	169.8%	-41.1%	-19.5%	
ICCO Cocoa US\$/mt	2,317	0.10	2.3%	-1.0%	0.1%	-11.0%	0.51%	-9.80%	2.5%	5.1%	27.7%	
ICO Coffee US\$/lb	194	1.00	10.0%	23.4%	27.1%	51.0%	29.03%	-3.70%	-1.1%	27.3%	-19.3%	
<b>Equities</b>												
<b>Domestic</b>												
<b>PGK K Arbitrage PNGX</b>												
Bank South Pacific	12.30	0.29	0.0%	0.0%	0.0%	2.5%	2.50%	0.00%	1.9%	14.8%	8.0%	
Credit Corporation	1.70	0.05	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	6.3%	18.5%	-18.2%	
City Pharmacy	0.80	1.00	0.0%	0.0%	14.3%	60.0%	60.00%	0.00%	-38.3%	24.6%	-13.3%	
Kina Asset Management Limited	1.00	0.00	0.0%	0.0%	0.0%	11.1%	11.11%	0.00%	-5.3%	0.0%	0.0%	
Kina Securities Limited	2.62	3.25	0.83	0.0%	0.0%	8.3%	1.56%	6.67%	-11.0%	27.2%	6.0%	
Steamship Trading Company	24.97	35.46	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	0.0%	609.2%	0.0%	
Oil Search Limited	10.53	10.60	1.00	0.0%	0.0%	0.0%	11.3%	5.79%	5.25%	-45.0%	-5.2%	1.3%
Newcrest Mining Limited	67.60	75.00	0.00	0.0%	0.0%	-8.0%	-7.98%	0.00%	16.4%	38.6%	-11.4%	
<b>Australia</b>												
A2 Milk Company Limited	6.88	0.12	-1.0%	1.0%	12.8%	-39.9%	-23.37%	-31.62%	-19.9%	38.6%	40.0%	
ANZ Banking Group Limited	28.00	0.90	1.3%	1.9%	-0.1%	23.3%	-0.11%	24.14%	-7.8%	0.7%	-14.9%	
BSP Financial Group	5.30	1.00	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	10.5%	-9.3%	-36.6%	
BHP Billiton Limited	51.45	0.98	3.1%	-0.2%	8.1%	21.3%	7.22%	6.76%	9.0%	13.7%	15.8%	
Boral Limited	7.40	1.00	0.0%	0.3%	7.2%	49.5%	33.88%	10.91%	10.5%	-9.3%	-36.6%	
Bougainville Copper Limited	0.54	0.64	-2.7%	7.0%	0.9%	84.5%	39.53%	48.28%	-10.8%	103.1%	-40.7%	
Bank of Queensland	8.93	0.91	0.9%	0.4%	0.3%	15.4%	5.32%	11.76%	6.8%	-25.3%	-23.7%	
Brambles Limited	11.50	0.96	0.0%	0.7%	3.9%	8.5%	8.13%	-0.19%	-9.6%	15.5%	0.8%	
Commonwealth Bank of Australia	99.88	0.86	1.5%	1.6%	1.2%	21.6%	15.99%	4.86%	2.8%	10.4%	-9.9%	
CSL	289.24	0.60	-0.3%	5.1%	0.9%	2.1%	7.76%	-6.54%	2.7%	48.9%	31.0%	
Fortescue Mining	25.19	0.93	-0.4%	-2.1%	10.8%	7.5%	16.76%	-14.68%	119.2%	155.1%	-14.1%	
Horizon Oil Ltd	0.11	0.92	0.0%	-4.3%	10.0%	77.4%	26.51%	33.87%	-48.3%	20.0%	7.5%	
Kina Securities Ltd	1.02	0.68	-0.5%	-0.5%	-4.7%	12.8%	14.59%	2.78%	-39.6%	56.8%	27.5%	
Kina Petroleum Ltd	0.06	0.00	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	0.0%	-1.7%	-38.9%	
Macquarie Group Ltd	157.47	0.91	1.5%	2.4%	3.3%	13.7%	2.36%	10.36%	0.5%	26.9%	9.1%	
Mirvac Group	2.86	0.86	1.1%	0.7%	-3.7%	8.3%	16.80%	-5.30%	-17.0%	42.0%	-4.7%	
National Australia Bank	26.04	0.86	1.2%	0.1%	-0.2%	15.2%	0.85%	15.04%	-8.2%	2.3%	-18.6%	
Newcrest Mining Limited	26.18	0.23	0.4%	-3.1%	1.8%	1.6%	3.52%	-5.28%	-14.8%	38.8%	-4.5%	
Oil Search Limited	4.08	0.76	1.0%	4.9%	7.9%	10.0%	-7.07%	10.51%	-48.8%	1.3%	-8.1%	
Origin Energy Ltd	4.48	0.29	2.5%	-1.3%	-4.3%	-5.9%	-3.84%	-1.47%	-43.7%	30.6%	-31.3%	
Pilbara Minerals Ltd	1.69	1.00	10.1%	7.6%	9.4%	94.3%	38.76%	20.11%	210.7%	-55.2%	-43.9%	
Qbe Insurance Group Ltd	10.73	0.77	1.4%	0.4%	-2.4%	25.8%	12.16%	12.78%	-33.8%	27.5%	-5.4%	
Rio Tinto Limited	127.41	0.87	1.2%	-2.8%	2.5%	11.9%	14.35%	-2.71%	13.4%	27.9%	3.5%	
ResMed Inc	34.80	1.00	0.1%	4.2%	7.2%	27.8%	29.74%	-7.27%	24.3%	37.6%	44.9%	
Steamship Trading Company	9.67	0.73	0.0%	0.0%	5.7%	-1.8%	7.56%	-8.63%	-21.2%	-33.2%	8.0%	
Suncorp Metway Limited	11.46	0.99	-0.2%	0.6%	5.1%	17.7%	12.22%	1.64%	-24.8%	2.6%	-8.9%	
Sydney Airport	7.79	0.95	0.5%	-0.3%	34.8%	21.5%	-6.46%	-3.43%	-26.0%	28.7%	-4.5%	
Transurban Group	14.33	0.61	1.6%	-1.9%	-1.2%	4.9%	6.83%	-2.49%	-8.4%	28.0%	-6.3%	
Telstra Corporation Limited	3.78	0.99	1.3%	0.0%	5.6%	26.8%	10.59%	14.09%	-15.8%	24.2%	-21.5%	
Treasury Wine Estates Limited	11.93	0.81	0.6%	-0.8%	1.4%	26.9%	12.85%	10.11%	-42.1%	9.7%	-7.3%	
Westpac Banking Corporation	24.93	0.82	0.7%	-0.2%	-3.5%	28.7%	5.74%	26.02%	-20.1%	-3.2%	-20.1%	
Worley Limited	11.35	0.50	2.5%	-1.1%	-5.0%	-1.2%	14.01%	-8.70%	-25.0%	34.1%	-16.1%	
Woolworths Limited	39.17	0.41	0.6%	2.2%	3.8%	-0.4%	-6.70%	3.97%	8.7%	22.9%	7.8%	
Woodside Petroleum Limited	22.58	0.55	3.2%	-1.7%	0.0%	-0.7%	-7.46%	5.54%	-33.9%	9.8%	-5.3%	
<b>International</b>												
iShare MSCI All Asia ex Japan USD \$	91.39	0.61	0.3%	-1.1%	-2.8%	1.9%	1.76%	3.49%	22.2%	15.6%	-16.7%	
Blackrock Int Equity Fund* AUD \$	20.59	0.92	0.4%	0.9%	0.3%	14.4%	9.55%	6.15%	-0.6%	23.5%	-6.6%	
Blackrock Australian Equity Fund* AUD \$	1.88	0.89	1.8%	0.4%	-1.3%	8.0%	8.72%	0.88%	-2.3%	19.1%	-11.0%	
Vanguard International Share* AUD \$	2.85	1.00	0.4%	0.9%	2.0%	13.9%	8.35%	4.85%	-0.1%	22.7%	-2.9%	
Vanguard FTSE World exUS USD \$	62.67	0.84	0.1%	-0.5%	-1.9%	7.4%	4.47%	3.98%	8.6%	17.9%	-16.7%	
Vanguard FTSE Europe USD \$	67.26	0.85	0.2%	-0.1%	-1.4%	11.7%	6.76%	4.58%	2.8%	20.5%	-17.8%	
iShares Core MSCI Europe USD \$	57.20	0.85	0.1%	-0.2%	-1.5%	11.5%	6.13%	5.25%	2.8%	20.7%	-17.6%	
iShares Asia 50 USD \$	88.27	0.57	0.6%	-1.7%	-3.1%	1.3%	-0.57%	5.75%	32.1%	19.3%	-16.3%	
iShares MSCI Japan USD \$	67.49	0.72	-0.1%	-0.6%	-0.9%	-0.1%	-1.43%	1.42%	14.0%	16.9%	-15.4%	
Acadian Global Managed Volatility Equity Fund	1.76	0.97	-0.4%	1.0%	1.3%	13.2%	9.20%	3.82%	-11.5%	8.1%	-6.1%	
Lazard Global Managed Volatility Fund - Australia*	1.10	0.92	-0.5%	1.9%	0.9%	10.9%	5.36%	6.31%	-22.7%	14.9%	-1.1%	
Robeco Emerging Conservative Equity Fund - Australia	1.40	0.69	-3.4%	-3.4%	0.7%	8.3%	0.97%	6.12%	-15.4%	10.4%	-0.6%	

\*Lazard performance since inception 28.02.17