Target Acquisition?

April, 2016

Executive Summary

Political stability & lower commodity prices should continue to support ~7%+ GDP growth at least until around 6 months before the 2018 elections.

The government will continue to push infrastructure building & the completed Padma bridge (slated for 2018) should deliver ~1% more to GDP growth as it integrates the hitherto isolated south of the country.

BDT rates may bottom by year-end & BDT-USD should remain range-bound around 78-79 with some upticks to ~80.

Though there might be some upward moves over the year, capital markets remain uninteresting as they remain too shallow & narrow for an economy this size. As always, there is still no liquid fixed income market.

Reflecting that view, we find more interesting trades in private equity, as well continued financing of banks' Basel-driven Tier I & II funding needs.



Our View Six Months Ago

Macro

The government will see out the end of its term in 2018
 Lower commodity bills & more stability will sustain GDP growth
 Policies hamstring production & consumption-driven GDP growth

- □ The RMG business should improve with more political stability
- Bangladesh interest rates will continue to drop
- Capital markets will remain staid until mid-2016
 - Banks & FI's will continue to unwind positions
 - Mutual funds & some blue-chips may provide value

Other

Business

□ Infrastructure will remain frustrating



How the View Fared

Macro

- The government is still well ensconced
 7.05% GDP growth to April 2016
- □ RMG exports grew 9.5% to March 2016
- Based on RSA data on deposit & lending rates
 - BDT interest rates dropped ~250 bps
 - Short-term lending rates to some blue-chips as low as ~7%
- Banks & FI's stayed out of capital markets
 - Essentially to force the government's hand
 - Government may yield & delay regulatory implementation by ~2 years



Business

- Padma Bridge construction continues apace
 - All other projects have slowed noticeably
 - PPP projects still slow to implementation



Key Changes to Our View

- Continued political stability & low commodity prices will support GDP growth
- BDT rates may bottom by year-end though banks will still have cash
- USD lenders (especially DFI's) have less to offer fast-growing corporates, especially with their more onerous conditions
- □ Capital markets will be less interesting
 - □ Possibly some upward moves as some regulations are pulled back
 - □ Overall, markets remain too shallow & narrow for an economy this size
- □ Bangladesh now needs more help with technology & productivity

More active investors, with money <u>&</u> expertise to offer, could more profitably play the Bangladesh growth story at this stage of the game



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Introduction



Global Macro Highlights

- The oil & commodity price crush did not deliver higher global growth
- □ The IMF predicts ~3.4% global GDP growth for 2016
- The lower (& for longer) the oil price, the better for Bangladesh
 Installed generation capacity utilization will increase (now averaging ~40%)
 The government will soon be passing savings to the consumer
 Lower oil prices have a slight correlation to remittances from the Middle-East
 Lower government borrowing to pay for commodities increases local liquidity
- Global interest rate hikes, however timorous, could dampen portfolio investment into Bangladesh
- China's faster than expected transition from industry to consumption presents Bangladesh an opportunity



The Attractions of Bangladesh

- □ 7.05% expected GDP growth for FY2016
- 13.5% 9 year Compound Annual Growth Rate for nominal GDP
- □ Bangladesh succeeds in reform & development
 - Grown to lower-middle income economy by Gross National Income (GNI)
 - □ Succeeded in halving chronic hunger since 2000
- □ 51% workforce participation but still only 20.8% in industry

See Appendix for background on Bangladesh, macroeconomic fundamentals, policies, threats & opportunities



Bangladesh Outpacing India in Human Development

India		Bangladesh
USD 1,581	GDP/Capita ₍₂₀₁₄₎	USD 1,086
68 Years	Life Expectancy ₍₂₀₁₄₎	71 Years
36%	Improvement in Life Expectancy ₍₁₉₉₀₋₂₀₁₃₎	48.5%
1:220	Lifetime Risk of Maternal Death ₍₂₀₁₅₎	1:240
62%	Reduction in Rate of Children Dying before 5 (1990-2015)	74%
102%	Girls as percentage of boys in elementary school ₍₂₀₀₉₋₂₀₁₃₎	106%
94%	Girls as percentage of boys in high school (2009-2013)	114%
29%	Percentage of women above 15 in labor force ₍₂₀₁₄₎	36%

Sources: UN, World Bank, ILO



A New Opportunity

Already benefitting from RMG buyers' "China+" strategy, Bangladesh could also gain from China moving to domestic consumption-led growth, but there remain significant obstacles:

- Low productivity even the RMG sector has ~41% less productivity than Vietnam's & ~50% less than China's
- Cheap labor arbitrage is an insufficient competitive advantage when customers demand quality, speed & efficiency
- Most local management only have a nodding acquaintance with just in time manufacturing, manufacturing for quality, etc.
- Owners, grown fat & happy on high margins for low CAPEX & effort, are generally unable or unwilling to up their game



A New Opportunity

- Modern manufacturing & management is feasible in Bangladesh
 - □ British American Tobacco (BAT) has long proven adept at that
 - Some banks & international organizations successfully use modern capital planning & management
 - Pharma manufacturers profitably make good products reasonably efficiently
- But, taken overall, Bangladeshi industry still has not fully attained modern levels of efficiency & management effectiveness

What Bangladesh now needs is not lazy dollars seeking "frontier market" returns but committed active investors to help local industries up their game





Potential Investments in the Pipeline



□ Trade recovered very well

 Trade finance delivered ~4.5% annualized for USD, some downward pressure

□ Market raised ~USD 250 million in that period

- RSA raised ~USD 112 million local Bank Tier II & Corporate debt
 - Market kept going south, pity shorting is illegal in Bangladesh
- The mutual fund trade lost money but now poised to recover
 Mooted transactions still in play
- Private Equity

Trade

Finance

Bank Debt

& Equity

Public

Equities

□ Six months not long enough to update



Trade Finance — Still a Worthwhile Play

- Extensive import & export trade financed by credit (letters of credit, factoring, discounting, etc.)
- □ ~USD 72 billion transactions annually
- Highly liquid transactions lasting 90 days on average at ~4.5% annualized rates for USD transactions
- □ Intermediaries do not directly risk balance sheets
- Local banks have the expertise & the credit intelligence but need foreign counterparties with funds, bank lines & correspondence agreements
- □ Trade finance funds can profitably take up the slack

Potential Overall Size: ~USD 50 – 500 million Timeline: 6-9 months to set up systems



Private Commercial Bank Debt & Equity

- Banks still augmenting Tier I & II buffers per Basel rules
 We closed ~USD 90 million Tier II funding in 2015
 - □ ~USD 128 million Tier II funding is in the pipeline
 - □ 2 banks & one Non-Bank Financial Institution (NBFI) in the pipeline
- Basel III implementation means banks need Tier I capital
 - □ ~8-12 banks looking for PE injections
 - □ 2-3 years until Basel III deadline, some banks may miss that deadline
- □ Some banks may have to merge to meet Tier I regulations
 - □ We see this need from fundamental analyses
 - □ Getting boards to see that will take longer, looming deadlines may help

Potential Overall Size: ~USD 50 – 700 million Timeline: over next 2 to 3 years



The Frustration of Public Equities

- A USD 38.9 billion public equities market in a USD 200 billion economy is insufficient, to say the least
- □ Bangladesh has no liquid Fixed Income (FI) market
 - Investors lack fixed income to provide risk diversification
 - Entrepreneurs tend to finance growth via bank debt
 - These same entrepreneurs tend not to share success via IPO's, especially not in these depressed markets
- Shallow equities & FI markets keep professional investors out, leaving the field to punters

Investors excited by Bangladesh's stellar growth & prospects need to look at the PE/VC model but...



PE is Harder to Work

Usual PE/VC models

- □ Add value to start-ups through management rigor & increased funding
- Use leverage to buy then financial engineering *via* debt markets
 IPO or sell to trade buyer
- Hard in Bangladesh because of debt & equity markets' limitations
- □ Investors perforce become active long-term owners
 - Add financial management expertise <u>&</u> technology
 - Actively manage portfolio companies for growth & profits
 - □ Potentially spin off part of the original investment in an IPO
 - □ Keep managing for long-term capital gains & cash flow

PE/VC model must morph closer to the "old-fashioned" conglomerate model



Multinationals & Conglomerate Model

- Multinationals have had success with publicly listed subsidiaries:
 - FMCG: British American Tobacco (BAT), Bata, Reckitt Benckiser, Berger Paints,
 - Telecoms: Telenor (Grameen Phone, Bangladesh's most valuable listed company at ~USD 4 billion market cap)
 - □ Pharma: GSK
 - □ Commodities: Lafarge, Heidelberg, Marico
- Others via private subsidiaries: Axiata (Robi), Airtel, Orascom (Banglalink), Siemens, Philip Morris, Unilever, Coca Cola, P&G, Holcim
- Novartis uses Bangladesh as a (wholly-owned) manufacturing center to produce almost exclusively for export



Investors with capital & commitment could look for greenfield investments or "roll-ups":

- As a unitary business judged on profits & cash flow, not an investment fund
- □ Targets in similar industries, benefit from shared overheads
- Integrate acquisitions with new technology, management & processes
- □ Bring financial discipline along with cheaper capital
- Leverage cheap labor with higher productivity

Brewing giants SABMiller & AB InBev began as rollups from Africa & Brazil respectively



Rollup Targets: RMG & Textiles

- RMG integrators can bring in modern technology & management
 - Many stressed or distressed operators on bank balance sheets
 - Low barriers to entry, evident from the thousands of RMG companies extant
 - □ Scattered sites & incompatible systems will challenge integration efforts
- □ A few stressed textiles, with not a lot of growth
 - □ They played cotton pricing & lost, most have not recovered since
 - □ Mismanagement of capital & resources implies room for improvement
 - □ Competitive pressure from cheaper & better imported materials
 - □ Need relatively higher CAPEX & much larger sites than RMG

Integrator brings: Funds, management, expertise, technology Deal size: USD 10-30 million, each



Rollup Targets: F&B and FMCG

Grocery & Food Chains

- Some well-financed local operators but they are overwhelmingly high-end focused & mostly in the capital
- Unmet middle class demand (most of the capital's ~17 million) in Dhaka alone implies huge potential
- □ High real estate prices make large stores difficult
- □ Smaller, more distributed stores are a supply chain nightmare
- Nationwide ambitions are thwarted by
 - Near non-existent cold chains
 - □ Infrastructure shortcomings are another supply chain nightmare

Integrator brings: Integration, management, logistics Deal size: USD 10-20 million, to start



Rollup Targets: Power

- China General Nuclear (CGN) Power Corporation bought ~4.5 GW of power assets from the troubled 1MDB fund for ~USD 2.3 billion
 - □ Effective control of 920 MW power assets in Bangladesh
 - □ ~USD 750 Million assets bought for ~USD 481 Million
 - □ All with government Independent Power Production (IPP) contracts
- □ We estimate ~500 MW stressed power assets available
 - □ Short/long term contracts, some with infeasible rates & business models
 - Some with obsolete technology (no cogeneration, diesel or heavy fuel oil)
 - □ Some politically exposed

Integrator brings: Funds, management, technology, integration Deal size: ~USD 500 million+



Rollup Targets: "New Agriculture"

- □ Bangladesh self sufficient in food but the problem is logistical, causing
 - □ Massive seasonal price fluctuations & spoilage as produce rots without transport
 - □ No effective national market, all markets are local
 - □ Lack of crop balancing leads literally to "feast & famine" for small farmers
- BAT vegetable growing experiment failed because of above reasons
- Land reform act (limiting personal & corporate land ownership to ~33 acres) makes commercial farming infeasible
- □ Use poultry farming model (supply chicks, buy back fully grown poultry)
 - Supply seeds, fertilizer, expertise & funding to smallholders
 - Buy output at agreed prices, potentially using Fairtrade practices
- Solve the logistics problem: that alone would be a quantum change in Bangladesh's economic development

Integrator brings: Funds, management, technology Deal size: ~USD 100 million+





Our view over the next 6-9 months



Our Outlook

- We consider ~7%+ GDP growth to be at or near Bangladesh's potential
 - Political stability will continue to deliver healthy GDP growth
 - Lower commodity import bills will help but the government will start passing on some savings
 - The Padma Bridge, once completed, should add another 1% as it integrates the hitherto isolated south of the country
- □ BDT should remain range-bound at 78–79.5/USD
- □ Interest rates may bottom out by year-end
- Capital markets might pick up after the rollback of regulations but we remain unimpressed by the shallow markets





.....

Appendix: Bangladesh





A Brief Introduction



Population: 160 million (2015 est.)

Population Density: 1,229 per sq km of total land area (2015 est.)

Population Growth Rate: 1.3% (2012 census, est.)

Surface Area: 147,570 sq.km. (93th largest in the World)

Major Cities: Capital: Dhaka (16.98 million), Port-city: Chittagong (5.23 million), Khulna (1.78 million) and Rajshahi (0.93 million) (2014)

Languages: 98% Bangla. English widely spoken.

Labor Force: 78.98 million (2014; 6th largest in the World)

Unemployment: 4.3% (2014 est.)

Adult Literacy Rate: 61.5% (2014)

Urban Population: 34.3% (2015)

Fiscal Year: July - June

Nominal GDP: USD 194.55 billion (FY2015)

Exports: 15.8% of GDP; Top exports RMG, Leather & Footwear, Jute & Jute Products and Frozen Foods (FY2015)

S&P Sovereign Rating: BB-/Stable

Capital Market: 328 listed stocks & mutual funds; with USD ~40 billion total market capitalization (Feb, 2016)

Remittance: 15.3 billion (FY 2015)

Source: World Bank & IMF, Ministry of Finance, Bangladesh Bureau of Statistics, Bangladesh Bank, CIA Factbook



Fundamentals



A Decade of Sustained Improvement

	FY2006	FY2015	FY2016E	10 year CAGR
Nominal GDP (BDT Billion)	4,823	15,136	17,000	13.4%
Nominal GDP (USD Billion)	71.91	194.55	219.00	11.8%
Per Capita GNI (USD)	543	1,316	1,450	10.3%
Real GDP Growth (%)	6.67%	6.55%	6.70%	N/A
FX Reserves (USD Billion)	3.48	25.02	28.50	23.4%
Exports (USD Billion)	10.41	30.77	33.50	12.4%
Imports (USD Billion)	13.30	40.68	43.00	12.5%
Remittances (USD Billion)	4.80	15.32	15.20	12.2%
Public Debt / GDP (%)	40.20%	27.09%	26.50%	N/A
External Govt. Debt / GDP (%)	25.90%	12.07%	12.00%	N/A
Domestic Govt. Debt / GDP (%)	14.30%	15.02%	14.50%	N/A
Market Capitalization (USD Billion)	3.21	41.74	42.50	29.5%

Source: Ministry of Finance, Bangladesh Bureau of Statistics , Bangladesh Bank, Dhaka Stock Exchange



Major Macroeconomic Trends

Indicator	FY2013	FY2014	FY2015	FY2016E	FY2017F	FY2018F
Real GDP (%)	6.01%	6.06%	6.55%	6.70%	6.90%	6.60%
CPI Inflation (%)	6.78%	7.35%	6.25%	6.10%	7.00%	7.00%
Export Growth (%)	10.75%	12.08%	3.33%	8.90%	12.00%	10.00%
Import Growth (%)	0.80%	8.92%	11.24%	5.70%	12.00%	12.00%
Workers' Remittance Growth (%)	12.60%	-1.67%	7.71%	-0.80%	5.00%	7.00%
Current Account Balance (% of GDP)	1.70%	0.90%	-0.85%	1.00%	0.01%	0.01%
Foreign Exchange Reserve (USD Billion)	15.30	21.50	25.02	28.50	30.00	31.00

Source: RSA Capital Internal Research



Real GDP Growth: Steady & Enviable



- Real GDP growth remains steady for Bangladesh
- Primarily consumption rather than infrastructure fueled growth



Demographic Dividend

Bangladesh Population Pyramid (2012 Census)





Labor Force (15+) Participation Rate

Source: World Bank 2014

- Majority of population (5-35 year brackets) is young & potentially economically active
- Another significant chunk in the 0-14 year brackets provides future growth stock, notwithstanding a population growth rate less than India & Pakistan
- Significant female participation at 40% of the labor force



GDP Growth: Remarkably Stable Despite Shocks

CAPITAL

- Growth back on track after severe political crisis over 2013 elections
- Economic resilience underscored by upwards revisions of growth rates



GDP Growth & Per Capita GNI



Source: Ministry of Finance, Bangladesh

- Per capita income in Lower Middle Income
 Country (LMIC) range
- After achieving UN Millennium Development
 Goals (MDG), pursuing UN's 2030 Agenda for
 Sustainable Development (SDG)
- Will join USD 200 billion GDP club by FY2016,
 ~6.0% growth over the last 15 years
- □ Some disparities on projections:
 - Government : 7.05% for FY 2016
 - U World Bank: 6.7%
 - □ IMF: 6.3%
 - □ RSA agrees with Government estimates



International Trade Data

MERCHANDISE TRADE

	<u>FY'2015</u>
Merchandise exports (billion USD)	\$30.8
Merchandise <i>imports</i> (billion USD)	\$40.7
Intra-Regional trade (SAARC)	% of Total
Exports	2.11%
Imports	15.75%
Breakdown in economy's total exports	
By commodity group	
Primary commodities	3.75%
Manufactured commodities	97.15%
By main destination	
1. United States	16.78%
2. Germany	15.28%
3. U.K.	10.41%
4. Spain	5.69%
5. France	5.66%

	<u>FY'2015</u>
Share in world total exports	0.18%
Share in world total imports	0.21%

Breakdown in economy's total imports			
By commodity group			
Principal primary commodities	11.09%		
Principal industrial goods	30.71%		
Manufactures and capital machineries	58.19%		
By main origin			
1. China	24.90%		
2. India	12.40%		
3. Singapore	6.40%		
4. Japan	4.00 %		
5. South Korea	3.1%		

Source: Export Promotion Bureau, Bangladesh Bank


International Trade Growth



Source: Ministry of Finance, Bangladesh Bank



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Exports: A Critical Growth Pillar

192% growth over
 FY2005-FY2015

- 13.5% 10 Year CAGR for exports
- Exports dominated by Knit & Woven wear
- Leather & Footwear a distant third



Export Earning Sectors

Source: Ministry of Finance



Economy: Shifting to Higher Value-Add



Source: Ministry of Finance

Industry gaining higher share while services maintain steady growth
 Share of agriculture declining despite rising outputs
 Services: Trade, transportation & communication, real estate, community & social services, banking & insurance, etc.



Growth: Industry & Services Over Agriculture

12%

Industry

- □ Biggest driver of GDP growth
- Consistently outperformed other sectors

Agriculture

- Contribution to GDP declining steadily (25.03% to 15.96%) over 15 years despite rising output
- Belies strong output & productivity growth due to policy reforms in this labor-intensive sector

Sectoral Growth FY 2009-2015



Source: Ministry of Finance



Trade & Remittances



Source: Bangladesh Bank

Arabian Gulf remittances have slowed in recent years Upsurge from Western countries steadied overall remittance flows



Remittances: Oil Price Impact

Oil Price vs. Inward Remittance



Source: Bangladesh Bank, US EIA

- □ Remittances have dropped somewhat in FY 2016
- Remittances are primarily from Arabian Gulf area (workers in Saudi Arabia, UAE, Oman & Qatar)
- There is some correlation to the oil price but it has broken down somewhat in FY'15 & FY'16



Current Account Balance: Bolstered by Remittances



Source: Ministry of Finance, Bangladesh Bank

- □ Current account mostly backed by remittance growth (~298% in a decade) since 2005
- Remittances less sensitive to economic cycles, have no associated capital outflow & mostly go to households (some to wage earner bonds & portfolio investment)
- Declining remittances growth possibly due to labor market saturation in the Arabian Gulf



Reserves: Rapid Accumulation Provides Buffer



Source: Ministry of Finance, Bangladesh Bank

- □ 25% External Debt vs. 267% Current Account Receipt (CAR) growth during 2005-2015
- □ Huge current account receipt growth helped reduce government external debt/CAR since 2005
- □ External debt crisis risk limited due to long-dated & concessional nature of cross-border debt



Domestic Credit Growth



Source: Bangladesh Bank

Private sector credit dominates domestic credit growth, recovering somewhat from the 2015 political crisis;

- Lower interest rates reinforcing the growth
- Lower commodity price subsidies have led to lower government borrowing & lower public sector credit growth



Markets & Investments



Investment: Stable FDI & Spiking Portfolio Inflows



Source: Bangladesh Bank

- Numbers actually flattered by multinationals' retained earnings being included in FDI numbers
- □ FDI still low compared to peers due to infrastructural drawbacks
- □ Rising global interest rates might cause further declines in portfolio investment



Capital Markets: Overview

Market Statistics (as of March 1, 2016)		
Number of Listed Securities	559	
Equities	288	
Mutual Funds	40	
Treasury Bonds	221	
Corporate Bonds	2	
Debenture	8	
Sector	22	

Market Parameters (as of March 1, 2016)

Market Cap (BDT Billion)	3,112,91
Market Cap (USD Billion)	39.90
Last 6 Months Average Turnover (BDT Million)	4,250
Last 6 Months Average Turnover (USD Million)	54.50
Forward P/E	15.23x
Audited P/E	14.25x
Price/BV	2.06x



Source: Dhaka Stock Exchange

Capital Markets: Turnover & Performance



DSEIndex Performance

- DSE average daily turnover decreased from USD 78 million (2009) to USD 54.2 million (2015)
- □ ~30% has been recovered from the 2013 bottom
- Markets have remained quiet after the 2010 bubble burst
 - Partly due to regulations forcing Banks & Fl's to unwind holdings
 - □ Partly due to a shortage of liquidity
- There is no reason an economy this size should have a stock market this small, but it is likely to remain so until
 - Entrepreneurs are tempted to unlock value through IPO's
 - □ There is a liquid Fixed Income market

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Comparison with Global Indices



Index	% Change '10-March to '16-March
Bangladesh	-15.38%
(DSEX/DGEN) NIKKEI 225	45.05%
BSE SENSEX	35.67%
SSE Composite	-12.09%
S&P 500	69.17%

- Stocks were unaffected during the global recession in early 2000's
- 2011 was the year of massive correction after the 2010 bubble
- Major global indices outperformedDSE in recent years



Capital Markets: Regulatory Overhang & Structural Issues

- □ Absent pension & strong mutual funds, banks are the mainstay
- □ Regulators pushing banks to reduce capital markets exposure
 - Exposure restricted to 25% of equity excluding revaluation reserves; most banks currently above the limit
 - □ Finance Minister recently hinted extending the deadline to July 2018
 - New rules regarding Alternative Investment Funds could be a help
- There remains a fundamental lack of depth in equities markets:
 - Very small list of blue chips with relatively low free floats
 - □ Shareholders have little sway over management & majority shareholders
 - Absent liquid fixed income markets, equities are an "all or nothing," "risk on/risk off" play with fundamentals playing little part in decisions



Politics



The Awami League Remains in Charge

- □ The Awami League (AL) will remain in power until 2018
 - □ Sheikh Hasina is in firm control of her party & all the levers of government
 - □ The Army remains happy & barracks-bound
- □ There now remains no credible parliamentary opposition
 - The BNP has no representatives in parliament, an exhausted leadership & little remaining public credibility but they may be coming back into the fold through municipal elections
 - The Islamist Jamaat-e-Islami party has had its leadership excised via the gallows but a younger, newer leadership may be pondering a return
- □ The economy is reacting positively
 - □ Returning stability has helped no end
 - Sheikh Hasina, with an eye to her legacy, is pushing through as many infrastructure projects as she can



But Surface Stability Belies Worries

- Corruption remains a factor in the country's economic activities
- Stability may have cost the diversity of views, however noisome & inconvenient, required of healthy democracies
 - Civil society is restive because of corruption & heavy-handed policing
 - □ The press is beginning to muzzle itself because of legal fears
- ~50% of the electorate (erstwhile BNP supporters) are effectively muted
 The Islamist parties are in disarray or in hiding
 - □ The biggest potential winners would be radicals filling the vacuum
- □ The "optics" can be worrisome, from some angles
 - A spate of high profile murders of bloggers & expatriates make splashy headlines — & always surface on Google searches

□ Fraud & SWIFT hacks don't help



Policies



"The Bangladeshi Job"*



"The Bangladeshi Job"

- □ Bangladesh was saved "for want of a printer & spellcheck"
 - The printer failure & subsequent error messages on the Bangladesh Bank
 SWIFT terminal first alerted BB officials to the fraudulent transfers
 - Deutsche Bank querying a misspelling averted the Sri Lankan transfers
 - □ The US Fed blocked a further USD 850 million
- □ The BB Governor was forced to resign, with other officials fired
- We believe the BB will use "*l'affaire* SWIFT" to restructure operations & put more stringent controls in place
- USD 850 million potential loss on a ~USD 28 billion portfolio is a ~3.3% loss/error
- To those banks & exchequers currently indulging in some schadenfreude, may we quote Mr Knopfler:

Some of you mothers ought to lock up your daughters



"The Bangladeshi Job": BAE's Analysis

- □ BAE Systems has traced this to a hack of SWIFT's system
- □ According to BAE Systems' Threat Research Blog
 - □ This was a well-planned heist but we do not yet know who was behind this
 - We do not yet know how the transfers were sent, how the malware was planted
 - The malware was bespoke for a specific "victim infrastructure" but the general tools & techniques will allow the team to strike again
 - "This attacker put significant effort into deleting evidence of their activities, subverting normal business processes to remain undetected and hampering the response from the victim"



Fiscal & Monetary Policy

- □ Low oil prices gave Bangladesh a windfall:
 - The Bangladesh Petroleum Corporation (BPC) had a USD 675 million (FY15) profit after years of losses
 - □ Power tariffs increased in FY13 & FY14 were not pulled back
- □ Net government bank borrowing down USD 45.8 million Jul- Dec 2015
- Savings instrument yields much higher than bank deposit rates keep sucking up Government borrowing
- Commercial banks suffering from excess liquidity because of much lower credit demand
 - □ Overnight interbank rate dropped to 3.7% (Dec 2015) from 8.5% (Jan 2015)
 - Surplus liquidity mostly parked in Government bonds with steadily lower yields
- □ Local currency deposit & lending rates declining to single digits



Fiscal & Monetary Policy

- □ NPL's dropped to 8.8% in December from 9.67% in June 2015
- □ BDT was quite strong over FY'15 & remains so, bolstered by:
 - □ 3.37% export growth to USD 30.80 billion
 - □ 8.5% remittance growth to USD 15.31 billion
 - Declining petroleum costs
 - □ Rising FDI & FX loans to local private companies
- USD 2.7 billion current account surplus (July 2015 to February 2016), recovering from last year's USD 1.65 billion current account deficit
- FX reserves were USD 28.2 billion as of March, heading quickly to USD 30 billion mark, possibly before June end



FX Outlook

- BDT USD rate seems unaffected by current account deficits or surpluses
- Bangladesh Bank's populist support for the USD continues
 - BB had paused buying Nov-Dec 2015 but resumed to support exporters as regional currencies lost against the greenback
 - □ ~USD 3 billion bought up to March 2016, versus USD 3.8 billion in FY15
 - □ BB 3-year dollar buying reached USD 13.4 billion
 - \square BDT could have gone down to ~72/USD without intervention
- BDT should remain range-bound at 78-79/USD, with possible upticks to 80/USD, over the next few months



Interest Rate Outlook

- □ High banking sector liquidity with low credit growth is keeping rates down
- □ Foreign debt investment, especially term (5-7 years) debt, slowed in 2015
- BB is letting BDT rates slide, hoping a narrowing USD-BDT rate differential will boost growth
- T-Bills dropped ~ 400-450 bps over the year, BB also cut policy rates by 50 bps
- □ 5-20 year T-Bonds dropped close to our forecast by 300-360 bps over the year
- BB has expansionary (~14.8% credit growth target) monetary policy for Jan-June 2016
- Government & BB rates showing signs of finding strong bases at current levels
- Deposit & lending rates likely to remain low this year
- □ Interest rates might start increasing by the end of 2016
 - Businesses exploit low interest rates & increase demand for funds
 - □ Government borrowing increases in the coming fiscal year (starting July 2016)



Threats & Opportunities



RMG Industry: The Benefits of Stability

- Political & labor market stability has boosted exports
 RMG & Textiles exports grew 8.95% over July-March 2016
 RMG exports expected to contribute USD 27.77 billion to GDP in FY2016
 Bangladesh has shrugged off continued non-renewal of US GSP
- The industry, now wise to the potential for PR disasters, is working with the Bangladesh Accord on Fire & Building Safety and the Alliance for Bangladesh Worker Safety to improve standards
- □ There are still too many RMG & Textiles companies
- Overall productive efficiency remains inadequate compared to benchmark China & to Vietnam



Threats: Infrastructure

Producer	Capacity [*] (MW)	Share (%)
Government	6,713	54.4%
Private	5,026	40.7%
Import	600	4.9%
Total	12,339	100%

* Using Installed capacity



Source: Power Development Board 2015

- □ Total generation capacity upped by 1,400 MW in 2014-2015
- □ The oil price drop has helped the government increase capacity utilization
- □ 100 MW private output reduction met by 100 MW imported from Tripura in India
- □ Reliance Power reducing projected LNG based power to 750 MW from 3,000 MW mentioned in the MoU
- Adani Power will supply 3,000 MW Coal-based power, possibly from Jharkhand in India rather than Bangladesh



Gas Production & Transmission: Murky Picture



- 14.32 trillion cubic feet (tcf) proven & probable gas reserves
 - □ 2,700 million cf current production
 - 500 million cf shortage/day; roughly 15% of total demand
 - Exhaustion predicted by 2030 at present rates
 - USGS 2012 report on <u>undiscovered conventional gas</u> reserves estimates up to 32 tcf of potential gas supply
 - Requires billions of dollars of investment
- Gas fields are on a North-South curve, skirting the Eastern border
- Pipelines generally lead to center with the West underserved
- All this implies power stations should be and are
 clustered around the gas fields
- Which militates a better spread out high tension power distribution network...



Power Grid Network



- □ ... of which there is not a paucity
- □ Good 132 kV distribution net
- 230 kV line along the main Dhaka-Chittagong urban/industrial corridor
 - Planned extension from gas fields to rest of nation will be good for industry
 - Padma bridge (multipurpose, so would have power transmission as well) would be a boon
- Which militates for a high speed telecoms network...



Optical Fiber Network



- □ ... of which there is some overcapacity
- This is just the one along the high tension power transmission network
 - □ It is mostly "dark"
 - Very high capacity
 - Node on the submarine cable landing at Jhilongja/Cox's Bazar
 - SEA-ME-WE-4 1.28 Terabit/sec capacity cable linking 16 countries
 - □ SMW-5 planned
- This is in addition to the 14,776 km network used by various telecom operators and providers

The missing link remains a good road/rail network



Infrastructure: Getting Better, Albeit Glacially

- □ Bangladesh's already healthy growth could be turbo-charged if:
 - □ The government discarded its abhorrence of external government debt
 - □ Infrastructure projects could be attractively structured for long term investors
- With more political stability, the Government has been more aggressive
 - □ Padma Bridge construction work continues apace, test of first span started
 - USD 1.6 billion project to set up Dhaka's first (over-ground) metro system in cooperation with JICA will start construction by the end 2016
 - □ 9 Special Economic Zones proceeding under the PPP program
 - □ The main Dhaka-Chittagong highway expansion to 4 lanes almost completed
 - Dhaka-Serajgonj (to Jamuna bridge) highway expansion to 4 lanes to be started
 - □ Tangail (the main industrial belt) to Chittagong road bypass under PPP to begin
 - USD 1.9 billion project to expand Eastern Refinery Limited (the main refiner) in preliminary stages



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