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Executive Summary

At KPMG, we are passionate about earning your trust. We take deep personal accountability to partner with you to deliver change larger than the sum of its parts. Ultimately, we measure our success from the only perspective that matters: Yours.
Executive Summary

- Managing systemic risk is top priority for regulators and the Board.

- OJK is in its early phases of its stress testing journey and is quickly converging on the rules and standards put in place by other regulators through the adoption of best practices from its more advanced counterparts.

- Indonesian banks have an opportunity take stress testing to the next level, through the adoption of best practice approaches and methodologies and integrating it as part of its
  - Risk Appetite Framework;
  - Capital planning process; and
  - Integrated risk management, incorporating early warning signals and Pillar I and Pillar II risks
The Impact of Oil Drop

Impact of Oil Drop – so far in 2016

- JP Morgan is planning to increase its provisions up to $750 million (1/3 of Expected Net Interest Income)
- Wells Fargo increased its provision by $100 million, bringing it to a total of $831 million
- Citigroup is experiencing a 32% increase in non-performing corporate loans and had to increase its provision by $250 million.

Fear of Domino Effects

- The average exposure of oil in banks’ portfolio is only 3%, but banks are still making large increases in their loan provision amount

US Government’s Responses

- A Change in Attitude Towards Financial Distress in Banks
  - Lehman Brothers Bankruptcy
  - Novo Banco Bonds Default

- Increasingly Rigorous Stress Testing
  - Quantitative and Qualitative areas are equally important. Governance, internal controls, risk identification and risk management, MIS, and assumptions and analysis that support the bank’s capital planning processes are reasons for failures in stress testing

- Enforcement through Restricted Capital Actions
  - 2015 - Deutsche Bank Trust Corporation and Santander Holdings USA, Inc

The average exposure of oil in banks’ portfolio is only 3%, but banks are still making large increases in their loan provision amount.
Stress Testing Timeline in US and Indonesia

**Color Reference:**
- Pilot Testing for Regulatory Stress Test
- Stress Testing Framework
- Capital Resolution Plan
- Stress Testing Exercise

**Indonesian OJK**

- Developed a preliminary version of CCAR through the KPMM legislation
- IMF provided some recommendations for Indonesian Stress Testing Framework
- OJK revised the KPMM legislation based on Basel III (OJK’s Circular Letter is not yet released)
- OJK invited 17 banks to discuss ST implementation Scenario and assumptions
- OJK invited 17 banks to submit their BU ST
- OJK developed a preliminary version of capital resolution plan requirement

**US Federal Reserve**

- Invited 19 banks to perform the Supervisory Capital Assessment Program (SCAP)
- Prescribed the first regulatory stress scenario
- Adopted the Capital Plan Rule for large-sized banks (with 50-250 Billion USD in assets)
- Approved the capital resolution plan requirement
- Completed the first version of the Comprehensive Capital Analysis and Review (CCAR) document
- The biggest U.S. banks will have to run two internal stress tests each year, in addition to the one the Fed runs yearly
- Finalized arrangements in accordance to Basel III regulations on capital buffers and leverage ratio
- Re-emphasized the importance of granularity on data
- Increased the regulatory bar on capital planning, especially for larger banks (with greater than 250 Billion USD in assets)
- Established the minimum operating and documentation standards for all supervisory activities
- Banks are required to submit Stress Test Results semi-annually
Benefits of Performing Stress Testing

**Business Process**
Redesigning, simplifying, and automating processes

**Regulatory Requirement**
Not merely ticking-off the regulatory requirement checklist

**Strategic Planning**
Greater confidence in the projected outcomes.

**Performance Measurement**
Ensuring that each business unit’s performance is measured using a risk-based methodology

**Risk Appetite**
Determining appropriate risk appetites based on a combined view of business plan and corresponding stress test results.

**Capital Planning**
Providing reassurance that the bank has adequate capability to withstand market turbulence
Best Practices to Perform a Comprehensive Stress Testing

- High-end IT System Infrastructure
- Proper Documentations of Key Assumptions
- Appropriate Haircuts
- Enterprise-Wide Level Data
- Well Defined Granularity in Data
- On and Off-Balance Sheet Exposure
- Dynamic Balance Sheet
- All Material Risk Types
- Internally Consistent Stress Parameters
- Correlation Between Asset Types
- Continuity of Stress Testing results
- Qualitative and Quantitative Assessments

Comprehensive Stress Testing
### Common Challenges in Performing Stress Testing

<table>
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<tr>
<th>Issues</th>
<th>Descriptions</th>
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<td><strong>Sustainability</strong></td>
<td>- Stress Testing processes are currently manual and labor intensive, especially with regards to the mid-year and year-end processes and quality assurance procedures</td>
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| **Results Rationalization and Continuity of the Processes** | - Lack of documentation, systems, or resources required to support the credibility of Stress Testing results  
- Lack of quantitative and human resources to integrate Stress Testing results into capital reporting and analysis, as well as the determination of risk appetite and strategic/business plans, among many other key decisions |
| **Data Quality and Data Management** | - Changes in certain key assumptions may have a cascading effect and not easily reconcilable across disparate systems especially when there is an inadequate integration of IT infrastructure  
- Limited historical data availability (e.g. PD, LGD, EAD for specific portfolios) may impact the bank’s ability to identify trends or back-test Stress Testing models, assumptions and key conclusions  
- Data integrity concerns due to data handoffs between technology platforms and limited reporting between systems (e.g. loan system to GL) makes aggregation, reconcilement and quality control difficult.  
- There is an increasing need for improved data verification and real-time error detection analysis /tools |
| **Proper Documentation**            | - Lack of documentation on key assumptions and modeling techniques used to perform the stress testing processes in order to readily justify the Stress Testing methodology/model.                                            |
| **Board Review**                    | - The bank’s Board and executive management may not be provided with sufficient and consistent information to effectively conclude on necessary capital plan submissions or revisions                                                      |
| **Model Uncertainties**             | - The Stress Testing models may not be fully back tested and validated (specifically on Risk Rating tools)  
- Model validation activities are time consuming, challenging and require unique qualifications to be done.                                                                                     |
Thank you
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