The New General Motors

• 2010 – A Fresh Start
  • $23 Billion Initial Public Offering

• Top Global Automaker
  • Sales of over 9 million vehicles in over 100 countries
  • #1 in China, #1 in U.S. in 2012
  • Fortune 10 company

• Production in 31 Countries

• 213,000 Employees Globally
GM – Top Global Automaker

GM North America 33%
GM Europe 17%
GM South America 11%
GM International Ops 39%

Production Locations in 31 Countries

2012 percentage of deliveries by region
* Currently, Central Treasury Office is located in New York, but office will move to Detroit in mid-2014
# Treasury Transformation Scope

<table>
<thead>
<tr>
<th>Activities</th>
<th>Description</th>
</tr>
</thead>
</table>
| Bank Account Administration     | • Maintenance of bank accounts  
                                 | • Bank relationships and fee analysis                                      |
| Cash Positioning                | • Short-term forecasting  
                                 | • Daily cash positioning  
                                 | • Cash reconciliation and accounting                                     |
| Cash Investments                | • Investment processing and accounting                                      |
| Treasury Wires & Settlements    | • Wire processing and accounting                                             |
| Debt & Equity Management        | • Managing long-term and short-term debt  
                                 | • Debt valuation and accounting                                            |
| FX Spot Trading                 | • Spot trade processing and accounting                                      |
| FX & Commodities Hedging        | • FX and commodity derivative processing and accounting                      |
| Intercompany Netting            | • Netting function for intercompany commercial cash flows                    |
| Cash Pooling                    | • Cash pooling and inter-company loans  
                                 | • Inter-company loan accounting                                            |
# Drivers of Transformation

**Reducing Operational Risk**
- Adoption of new technologies
- Use of a single treasury management system
- Greater integration between systems and reduction of manual touchpoints

**Improving Process Controls**
- Automation of end-to-end processes
- Alignment of data ownership with processes
- Integration of treasury accounting with treasury processes
- Standardization of bank account structures globally

**Increasing Efficiencies**
- Standardization of global treasury processes
- Centralization of treasury functions
Prerequisites for Transformation

Developing Target Operating Model (TOM)
- Define level of centralization for each treasury function: e.g. should FX spot trading be done at the Business Units (BUs), Regional Treasury Centers (RTCs) or Central Treasury Office (CTO)?
- Define process scope for each treasury function: e.g. what tenor of investments should the BUs be allowed to enter in?
- Revise treasury policies to reflect target operating model

Process Mapping
- Develop end-to-end process design for every treasury function
- Incorporate internal control points for each process
- Identify manual and automated linkages between processes

System Selection
- Shortlist TMS vendors depending on size and capabilities
- Evaluate vendors based on predefined criteria:
  - Functional and technical depth
  - Customer service references
  - Ease of implementation and sustainability
## Target Operating Model – Centralization

- TOM targets moving majority of treasury processes from BUs to RTCs and/or CTO

<table>
<thead>
<tr>
<th>Treasury Activities</th>
<th>BU</th>
<th>RTC</th>
<th>CTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Account Administration</td>
<td>O</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Cash Positioning</td>
<td>O</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Cash Investments</td>
<td>O</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Treasury Wires &amp; Settlements</td>
<td>O</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>Debt &amp; Equity Management</td>
<td>O</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>FX Spots</td>
<td>O</td>
<td>X</td>
<td>x</td>
</tr>
<tr>
<td>FX &amp; Commodities Hedging</td>
<td></td>
<td></td>
<td>x *</td>
</tr>
<tr>
<td>Intercompany Netting</td>
<td></td>
<td></td>
<td>x *</td>
</tr>
<tr>
<td>Cash Pooling</td>
<td></td>
<td></td>
<td>x *</td>
</tr>
</tbody>
</table>

* No change in process

- Due to regulatory/local language dependencies, some treasury activities may remain at BUs (determined on a case-by-case basis)
- Implementation of a single treasury management system globally is critical to centralization and standardization
Target Operating Model – Investment Policy Example

**Non-cash Pooling Entities**

- Incremental Cash
- Minimum Operating Cash
- Buffer

- Repatriated via dividends
- Not invested locally

**Cash Pooling Entities**

- Incremental Cash
- Minimum Operating Cash
- Buffer

- Repatriated via dividends
- Deposited in global cash pool
- Not invested
Process Mapping – Investment Process

Before

<table>
<thead>
<tr>
<th>Process</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Manual Steps</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Systems Used</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>D</td>
</tr>
<tr>
<td>Data loaded from TMS into Excel; Trades entered into Excel</td>
<td>Trades executed and verified manually in Bloomberg</td>
<td>Trades entered again in TMS</td>
<td>Trade report from TMS sent via Fax</td>
<td>Data entered manually into Bank Workstations for initiating wires</td>
<td></td>
</tr>
</tbody>
</table>

After

<table>
<thead>
<tr>
<th>Process</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 manual step</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated System</td>
<td>G</td>
<td>H</td>
</tr>
<tr>
<td>Trade entered on Bloomberg AIM. Pre-trade compliance and trade matching automated</td>
<td>Automated using interface</td>
<td>Automated via SWIFT using TMS (Controls potentially could be automated)</td>
</tr>
</tbody>
</table>

Benefit

*Straight-through processing via an integrated system reduces resources and improves controls*
## System Implementation Principles

| Bank Connectivity | • SWIFT used for all data exchanges with financial institutions  
| |   • Enables efficient connectivity with large number of banking partners globally  
| |   • Allows quick onboarding and enablement of MT940 files to achieve cash visibility  
| |   • Achieves payment method standardization through MT101 for all treasury wires  
| Interface Strategy | • Interfaces built only with systems not scheduled to be terminated  
| |   • Single file format for all ledger interfaces  
| |   • Off-the-shelf functionality leveraged to minimize new code development  
| Treasury Systems | • No customization of standard functionality  
| |   • Manual workarounds employed to resolve functionality gaps  

## Benefits of Transformation

| Reducing Operational Risk | • Replaces multiple legacy systems with a single treasury management system  
|                          | • Minimizes dependence on external vendors via reliable in-house sustain model  
<table>
<thead>
<tr>
<th></th>
<th>• Centralizes hedging process globally</th>
</tr>
</thead>
</table>
| Improving Process Controls | • Real-time visibility of global cash  
|                          | • Automated accounting integration with the ledger system  
|                          | • Faster accounting close with daily end-to-end accounting process  
|                          | • Automated segregation of duties and approvals for trade confirmations and wires  
|                          | • Single system of record for global debt, LCs, fixed income, in-house financing, FX, and commodities  
|                          | • Ability to track counterparty exposure on a peak balance basis |
| Increasing Efficiencies  | • Automation and centralization of cash positioning, cash investment, and FX trading processes  
|                          | • Rationalization of bank account structures and relationships |

**AFP® Annual Conference**
Incremental Approach to Transformation

Year 1
- Define TOM for global treasury
- Establish SWIFT connectivity globally
- Select treasury management system

Year 2
- Implement single treasury management system in central office
- Develop working prototype for the target operating model at CTO

Year 3
- Global implementation of TOM
- Expand global footprint of systems and processes

Year 4
- Continue process and system enhancements at CTO

Year 5

Year 6+

AFP Annual Conference
North America Deployment Sequence

- The treasury management system was deployed at the central office in 3 major releases:
  - R1 – Bank account management and bank balance reporting
  - R2 – Cash management for the U.S.
  - R3 – Trade and investment management and all remaining treasury functions
- Canada and Mexico deployments include all treasury functions in a single release

<table>
<thead>
<tr>
<th>RELEASES</th>
<th>Q2-11</th>
<th>Q3-11</th>
<th>Q4-11</th>
<th>Q1-12</th>
<th>Q2-12</th>
<th>Q3-12</th>
<th>Q4-12</th>
<th>Q1-13</th>
<th>Q2-13</th>
<th>Q3-13</th>
</tr>
</thead>
</table>
In-House Financing – Activities and Benefits to GM

**Activities**

- Accepts cash pools from GM subsidiaries and affiliate companies
- Makes loans to GM subsidiaries and affiliate companies
- Sources FX currencies for GM subsidiaries and affiliate companies
- Invests incremental liquidity in the financial markets

**Benefits**

- Lowers minimum operating cash requirements by eliminating idle and trapped cash
- Minimizes cost of funds by funding internally through incremental liquidity
- Centralizes cash management through better controls and reporting
- Enables efficient investment of incremental liquidity in the capital markets
Benefits to GM Units

1. Units can open a cash pool account to invest any incremental liquidity on a periodic basis
2. Units can open a revolving credit line to be used for any liquidity needs
3. Units can flow funds to/from external parties in any currency through their accounts
4. Units have access to the international currency markets in an effective and low-cost manner
5. Units have access to the international investment markets in an effective and low-cost manner
GM Standard Payment Process

- Each week, tens of GM Units use the multi-lateral netting system for foreign supplier payments and allied operating payments
  - Local supplier payments are done through entities’ local bank accounts
Netting Benefits

- Optimize sourcing of currencies and bank transfers:
  - Obtain better rates with a larger FX trade ticket
  - Reduce FX trade volume by utilizing internal FX
  - Reduce number of wire transfers for intercompany payments
  - Lower bank transfer fees
  - Improve controls and reduce operational errors through a standardized process

WITHOUT NETTING

WITH NETTING
Challenges in Cash Pooling

Management of Cash Pool and Loan Agreement (DLA) Terms
- Avoid disparate terms by standardizing DLAs and ensuring that standard terms work for all BUs
  - Allows for quick onboarding of cash pool participants
  - Standardize interest rates curves per currency to ensure “arms length” rate

Cash Pool Location
- Consider tax landscape (income/withholding tax) when determining cash pool’s country of domicile

Operational Complexity
- Pick a creditworthy bank with global capabilities to minimize counterparty and operational risk
  - In case of multiple cash pools, diversify by using a different bank for each cash pool
  - Integrate intercompany loan management, settlements and accounting under one TMS

FX Management
- Make loans in BUs’ functional currencies so that BUs are not exposed to P&L impact from FX risk
  - In addition, centralization of FX risk at cash pool minimizes FX exposures due to offsets and correlations, and also allows for better oversight

Resources
- Automate as many manual processes as possible
  - Automate cash pooling by setting up ZBAs and sweeps, where possible
  - Build sufficient controls for manual processes
  - Ensure adequate business continuity planning for daily tasks
## Sustain Principles

| Issue Resolution | • Separate business and IT roles in sustain organization  
|                  | • Employ consistent methodology for issue resolution worldwide  
|                  | • Designate a single point of contact for business personnel |
| System Configuration | • Ensure consistency of configuration globally  
|                     | • Prevent static data duplication  
|                     | • Designate a single point of responsibility for all system configuration |
| Continuous Improvement | • Build exhaustive knowledge and expertise in business processes and system features  
|                         | • Focus on identifying opportunities to improve existing processes |
Sustain Structure

**BUSINESS SUSTAIN**

- Monitor all interfaces and scheduled jobs
- Manage security access in all systems

**IT SUSTAIN**

**IT BUILD**

- Execute system/process enhancements in coordination with business sustain
- Troubleshoot system issues
Learnings from Implementation

• Don’t compromise standardized solutions based on in-country need for customized solutions
• Sacrifice optimization (at times) in order to reduce complexity
• Secure and maintain executive buy-in before and during the transformation
• Align cross-functional teams: key stakeholders include Controllers, CFOs, Shared Service Center, and IT
• Finalize sustain strategy early in project lifecycle
  • Ensure sustain team includes employees with treasury operations experience – ideally source the sustain team from the project team
• Engage full-time business resources in the project team
• Build in ample time for parallel testing
  • Be prepared to backfill staff to ensure smooth operations during parallel testing
• Work on bank structure changes and SWIFT connectivity documentation early in the project
• Establish and track short-term milestones
Global Deployment Approach – Looking Forward

• Obtain buy-in for global treasury model
  • Secure buy-in from regions before start of global implementation
  • Identify business dependencies and tasks that need to be completed prior to deployment (e.g. bank account structure changes)

• Global deployment (outside North America) of unified treasury processes and systems will be done in 3 phases:
  1. Implement TOM in the home country of each region (South America, Europe, Asia Pacific)
  2. Implement TOM in tier 2 countries of the region
  3. Implement TOM in tier 3 countries

• Engage regional teams in global implementation
  • Regional team participation and responsibility increases with each phase of the project

• Create standardized template for implementation at BUs
  • Use the model implemented in central office for global deployments