



Building Success. Together.

Global Cash Flow, Collateral, Guarantees: Enough to Repay?



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Agenda

- Definition of global cash flow (GCF) and global debt service coverage (GDSC)
- Review and comparison of various measures of cash flow (CF)
- Evaluating borrower-guarantor GCF repayment ability
- Evaluating collateral as secondary repayment source
- Evaluating guarantor adjusted net worth (ANW) as secondary repayment source
- Credit decision
- Summary and closing



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Good credit decisions depend on logical evaluation of repayment sources

- credit decision process' Triple Trinities
 - Purpose
 - Legal
 - Ethical
 - Within policy
 - Repayment
 - Cash flow—enough to CF to repay loan, $CF \geq (P+i)$
 - Collateral—if borrower defaults, collateral $\geq (P+i)$
 - Guarantees—if borrower defaults, guarantors $\geq (P+i)$
 - Structure
 - Repay in full
 - Repay on time
 - Repay as agreed



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The Odds of Being Repaid

- We hope borrower has management to figure out how to be successful in its line of business by generating enough cash flow to pay all debts & cover contingent liabilities, e.g., guarantees, warranties, self-insurance, lawsuits, etc.
- We also hope borrower is able and willing to repay, but if borrower defaults, we reduce chance of loss by taking sufficient liquidatable collateral and obtaining enforceable guarantees
- So our sources of repayment are based on
 - First, reduce probability of default
 - Second, collateral and guarantees to mitigate loss given default
- In a perfect world, we have it all . . .



Risky Business

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Definition of GCF and GDSC

- Global Cash Flow (GCF)
 - Total cash flow generated by borrowing entity and its guarantors
- Repayment
 - Global Debt Service Coverage (GDSC)—enough GCF from borrowers and guarantors to repay loan +interest, $GCF \geq (P+i)$
 - Usually expressed as GDSC ratio:
 - » borrower and Guarantor Cash Flow/(existing and proposed $P + i$)
 - » Quantification of other contingent liabilities, e.g., guarantees, warranties, self-insurance, lawsuits, etc.
 - Secondary Repayment Sources
 - Collateral—collateral liquidation value $\geq (P+i)$
 - Guarantees—guarantors' adjusted net worth (ANW) $\geq (P+i)$



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Why Global Cash Flow (GCF)?

- Comingling and disaggregation of funds in closely held business
 - Many owners lend to and/or borrow from their businesses
 - Tax laws encourage separation of business into two or more parts, e.g., sale-leaseback
 - Owner-guarantors manage salaries, bonuses, benefits, dividends, etc. to minimize taxable income
- Putting Humpty-Dumpty back together
 - Bank loan funds will be used directly or indirectly by borrower-guarantors
 - So GCF puts all the cash inflows and outflows back together again
- Regulatory guidance
 - The OCC's Internal Guidance from April 9, 2008:

"An analysis of the guarantor's global cash flow should consider inflows, as well as both required and discretionary cash outflows from all activities. This may involve integrating multiple partnership and corporate tax returns, business financial statements, K-1 forms, and individual tax filings. Anything short of a comprehensive global cash flow analysis diminishes confidence in the assessment of guarantor strength, even in the face of significant liquid assets since that liquidity may be needed to fund contingent liabilities and global cash shortfalls."
 - Consequent regulatory guidance expects accuracy, uniformity, consistency in repayment analysis of cash flow, collateral, and guarantees
 - So approach to repayment analysis needs to be comparable from borrower to borrower . . .

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Polling Question #1

- 1-Does your organization use global cash flow to evaluate repayment ability?
 - ☐ YES
 - ☐ NO

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GCF Analytical Goals

- To ensure that GCF is calculated correctly and consistently
- To ensure that underlying assumptions are valid
 - Reasonable CF projections for borrowers and guarantors
 - Enforceable guarantees from the borrowing entity's principals
 - Disclosure of all existing and proposed P + I
 - Acceptable P term & amortization and i rate
- Now let's turn to cash flow . . .

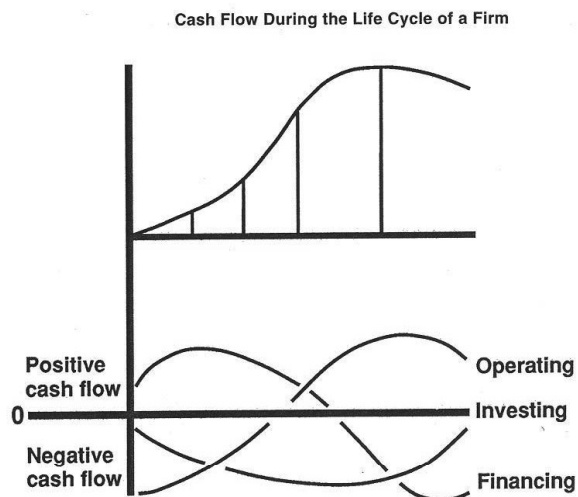


Cash Flow Fantasies

- Every borrower has a core cash flow
 - Predictable and reliable
 - Stable and consistent
- Borrowers always pay back bank debt before
 - they pay taxes and CAPEX?
 - they pay their personal living expenses?
 - they pay themselves draws and dividends?
 - they pay unexpected costs—accidents, fires, floods, tornadoes, hurricanes, illness, etc.?

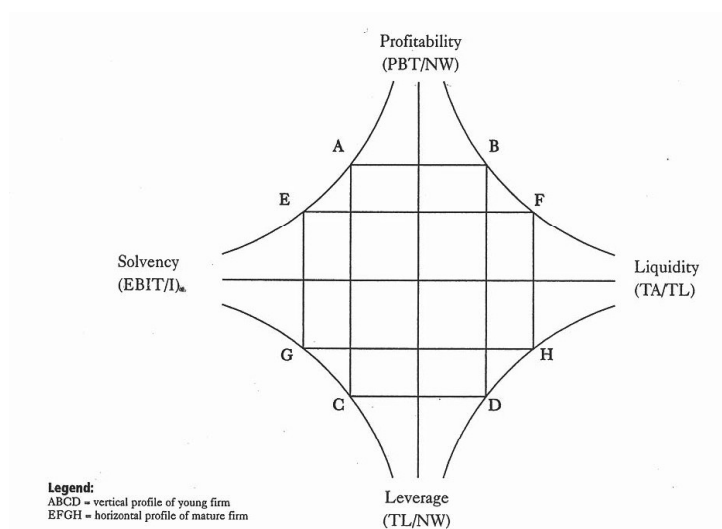


Cash flows vary over a firm's life cycle . . .



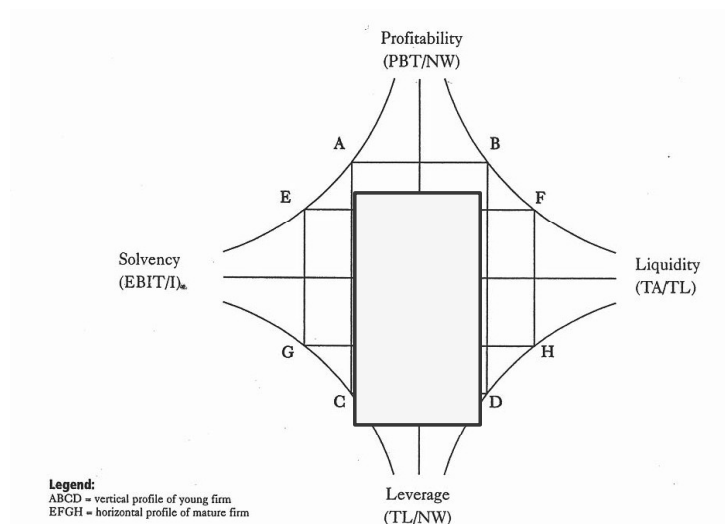
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So does the firm's financial condition and performance . . .



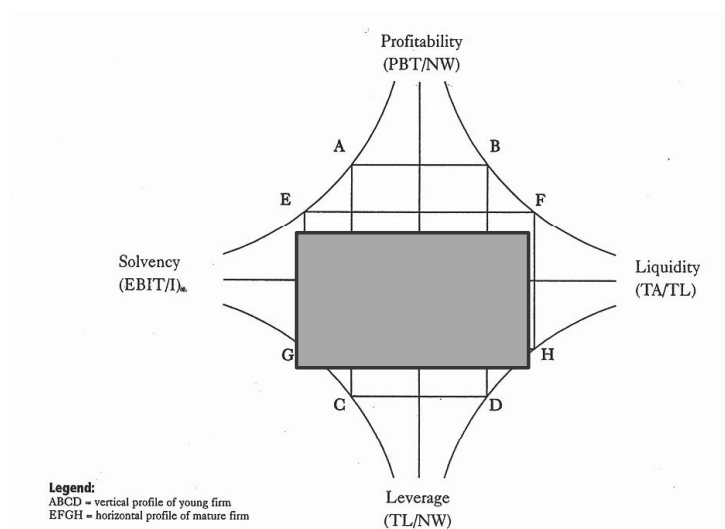
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Growing firm is illiquid, leveraged, insolvent in quest for desired ROE



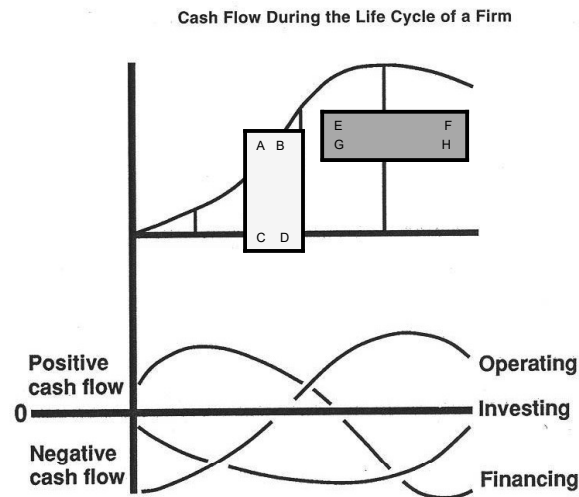
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Mature firm achieves ROE, is more liquid, less leveraged, more solvent



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Fast growth—negative cash flows and stressed financials, mature—positive cash flow & strong financials



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Borrowers are usually fast-growing firms, not mature firms

- **Mature firm** has positive operating cash flow and enjoys good operating performance and solid financial condition
- But **growing firm** has negative operating and investing cash flow coupled with thin operating performance and stressed financial condition and so needs to borrow more than mature firm
- So if our customer base is mainly growing firms, we need to find cash flow measure that works in growth scenarios by incorporating legitimate growth needs:
 - working capital to acquire more inventory and carry more receivables to support sales growth
 - CAPEX to acquire fixed assets to support sales growth
 - payment of income taxes
 - Repayment of debt—principal and interest
 - stockholders' expectations for dividends and share price appreciation

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But which cash flow measure to use for young, fast-growing firms?

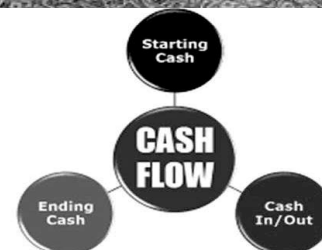
- Common CF measures
 - Traditional cash flow(TCF) ?
 - After-tax profits + non-cash charges (D&A)
 - EBITDA?
 - FAS 95 cash flow?
 - Operating
 - Investing
 - Financing
 - Other measures?
 - NCAO (net cash after operations)
 - NCI (net cash income)
 - CADA (cash after debt amortization)
 - FCF (free cash flow)
 - Global Cash Flow



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How do we measure cash flow (CF)?

- Common CF measures
 - **Traditional cash flow (TCF) ? After-tax profits + non-cash charges (D&A)**
 - EBITDA?
 - Other measures?
 - NCAO (net cash after operations)
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Traditional Cash Flow (TCF)

- If working capital growth is truly seasonal, then cash flow from operations (CFO) is equal to profits and non-cash charges (TCF)

- Take a look at Reaper Corporation:

<u>CFO Calculation</u>	<u>Reaper (\$M)</u>
after-tax profits	20
depreciation	7
amortization	1 <u>8</u>
S-T, TCF	28
changes in AR	0
changes in Inv	0
changes in AP	<u>0</u>
S-T, NWC changes	<u>0</u>
CFO	28

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Traditional Cash Flow (TCF)

- Seasonal working capital (SWC) commitments were sometimes called short-term inherently self-liquidating (STISL), their repayment coming from the “cash conversion cycle”
 - Cash → inventory → receivables → cash
- A key assumption to SWC financing is that SWC is temporary, and after the seasonal peak, it contracts back to its starting point
- So there is no permanent incremental expansion of working capital components . . .

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Traditional Cash Flow (TCF)

- Seasonal net working assets expansion and contraction:

NWC calculation for Cape Cod Surf Shop Supply	12/31/19	6/30/20	12/31/20	12/31/19 – 12/31/20 FYE change
Cash	100	20	100	0
AR	20	200	20	0
Inv	50	150	50	0
Cur Assts	170	370	170	0
Trade Payables	-10	-50	-10	0
Notes Payable	0	-150	0	0
CA growth	0	200	0	0
CL growth	0	200	0	0

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Consequences of TCF Assumptions

- Consequences of using TCF to measure cash flow :
 - TCF = CFO only if
 - NWC always returns to its starting point, so no sales growth
 - But what if company does grow?
 - Sales growth requires assets to support growth
 - Additional NWC investment
 - Additional CAPEX
 - Additional NWC and fixed assets usually means additional borrowing to acquire assets
 - But NWC and CAPEX investment compete with debt repayment for cash in growing companies
 - Adding back depreciation expense means no \$\$ available to replenish fixed assets
 - Depreciation usually covers only about 50% of replacement costs, anyway
 - TCF ignores NWC and CAPEX investment , so it overstates CF available to repay debt
- So how about EBITDA? Let's look again at Reaper Corporation . . .

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How do we measure cash flow (CF)?

- Common CF measures
 - Traditional cash flow(TCF) ? After-tax profits + non-cash charges (D&A)
 - **EBITDA?**
 - Other measures?
 - NCAO (net cash after operations)
 - NCI (net cash income)
 - CADA (cash after debt amortization)
 - FCF (free cash flow)
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EBITDA Defined

EBITDA spelled out:		<u>Reaper (\$M)</u>
– E	profit after taxes	20
– B	before . . .	
– I	+ interest expense	7
– T	+ taxes	10
– D	+ depreciation	7
– <u>A</u>	<u>+ amortization</u>	<u>1</u>
– =	EBITDA	45

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How about TCF & EBITDA?

Reaper (\$M)	2013	2014	2015
PAT	20	12	32
<u>+D&A</u>	<u>7</u>	<u>8</u>	<u>18</u>
TCF	28	20	50
+T	10	3	2
<u>+I</u>	<u>7</u>	<u>11</u>	<u>16</u>
=EBITDA	45	40	68

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But TCF and EBITDA add up to the same problem . . .

• E	20	• E	20
• B		• +D	7
• +I	7	• <u>+A</u>	<u>1</u>
• +T	10	• =TCF	28
• +D	7	• +T	10
• <u>+A</u>	<u>1</u>	• <u>+I</u>	<u>7</u>
• =EBITDA	45	• =EBITDA	45

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EBITDA's Appeal—Why It's Used

- Easy to calculate
 - Uses only P&L data, no balance sheet needed
- Bigger, positive number
 - Offers larger number for value multiples
 - Positive, stable number
- Investment banker mystique and cache
- Borrowers like EBITDA-based covenants
 - Easy to calculate
 - Hard to violate



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EBITDA's Drawbacks

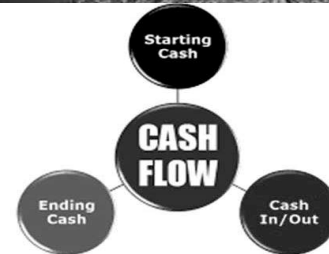
- It's not all available to service debt because:
 - It ignores sales growth needs for
 - NWC
 - CAPEX
 - It ignores taxes
 - It ignores dividends
- Its use induces aggressive accounting tactics
- Its overstated CF leads to bad credit decisions
- EBITDA-based covenants don't work
- Historic failures that led to 1988 implementation of cash flow statement FASB 95 (ASC 230)
 - Penn Central in 1970
 - WT Grant in 1975



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How do we measure cash flow (CF)?

- Common CF measures
 - Traditional cash flow(TCF) ? After-tax profits + non-cash charges (D&A)
 - EBITDA?
 - **Other measures?**
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Quick Fixes to EBITDA

- Two solutions to EBITDA
 - **1-FASB-based cash flow from operations (CFO)**
 - Accurate
 - But harder to calculate than EBITDA
 - Several variations on CFO
 - NCAO
 - NCI
 - CADA
 - **2-Free cash flow (FCF)**
 - Not quite as accurate, but maybe close enough
 - Starts with EBITDA, so easier to follow



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Which CF Measure?

Reaper (\$M)	2013	2014	2015
EBITDA	45	40	68
+R	<u>5</u>	<u>12</u>	<u>20</u>
EBITDAR	50	52	88
-T	-10	-3	-2
-Div	-3	-4	-8
-Capex	-37	-102	-91
-chg NWC	<u>-2</u>	<u>-38</u>	<u>-35</u>
sub-total, needs	<u>-52</u>	<u>-147</u>	<u>-136</u>
=FCF avail for existing debt	-2	-95	-48
-R	-5	-12	-20
-P	-10	-5	-14
-I	<u>-7</u>	<u>-11</u>	<u>-16</u>
=Dbt Svc (DS)	-22	-28	-50
=FCF avail for new debt	-24	-123	-98

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Comparison of NCAO, NCI, and CADA for Reaper Corp

NCAO, NCI, CADA (\$M)	2013	2014	2015
Cash collected from sales*	566	616	666
-production costs	-460	-526	-537
-operating costs	-82	-104	-123
+other income or -other expenses	+5	+22	+25
=net cash after operations (NCAO)	29	8	31
-interest expense	-7	-11	-16
-dividends	-3	-4	-8
=net cash income (NCI)	19	-7	7
-principal repayment (P)	-10	-5	-14
=cash after debt amortization (CADA)	9	-12	-7
-CAPEX	-37	-102	-91
=NCAO surplus or deficit	-28	-114	-98

* FAS 95 (now called ASC 230) direct cash flow method

- FASB 95 (ASC 230) CFO's direct method converts income statement into operating cash flow statement yielding NCAO
- Deducting costs of debt (interest) and equity (dividends) results in net cash income (NCI)
- Subtracting principal repayment (P) shows cash after debt amortization (CADA)
- Deducting capital expenditures (CAPEX) accounts for investing cash flow and final result is NCAO surplus or deficit

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Reaper's growth and debt service needs means FCF deficit for potential new lenders

Reaper (\$M)	2008	2009	2010
EBITDAR	50	52	88
-T	-10	-3	-2
-div	-3	-4	-8
-CAPEX	-37	-102	-91
-NWC changes	-2	-38	-35
Sub-total, growth	-52	-147	-136
=FCF before existing DS	-2	-95	-48
-R	-5	-12	-20
-P	-10	-5	-14
-I	-7	-11	-16
Sub-total, existing DS	-22	-28	-50
=FCF after growth and existing DSC	-24	-123	-98
NCAO surplus or deficit	-28	-114	-98

- When Reaper's EBITDAR is adjusted for growth needs and for repayment of existing creditors, the result is a FCF deficit for any new potential lenders
- And the result is very close to FASB 95 calculations
- So, we'll use the FCF line

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Polling Question #2

- 2-Which of these cash flow measures do you think is most accurate in judging repayment ability?
 - ___ traditional cash flow
 - ___ EBITDA
 - ___ free cash flow

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Why we expect owners/principals to guarantee

- **Commitment**
 - Owners/principals willing to support their own enterprise?
 - “psychological commitment” aka “skin in the game”
- **Liability**
 - Corporate legal form limits owner’s liability to investment
 - Personal guarantee “pierces corporate veil”
- **Enforceability**
 - Officer, investor, director

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Degree of Guarantee

- Degrees of guarantee
 - Full
 - Unconditional
 - Joint and several
 - Unlimited as to amount, time
 - Limited
 - Conditional
 - Individual
 - Limited as to amount, time

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So How About a Little Help from Their Friends?

- One way a bank can improve repayment ability is to ask the borrowing entity's owners to co-sign or guarantee the debt
- Reaper Corporation has existing debt and now its affiliate GREAT (Grimm Real Estate Asset Tower) wants a \$500M 5-year loan secured by the building
- How about a little help from Reaper's and GREAT's owners Slim Jim Grimm and Dim Tim Grimm?
 - Each receives \$100M from Reaper
 - So how much can each owner contribute from personal resources & personal income to service total relationship debt?

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Individual Repayment Analysis

Personal Cash Flow (PCF) available to help Reaper

2015 PCF Analysis (\$)	Slim Jim	Dim Tim	Total
Salaries from Reaper	100,000	100,000	200,000
Interest Income	20,000	10,000	30,000
Dividend income from GREAT	25,000	5,000	30,000
Sub-total, income	145,000	115,000	260,000
-FIT and other taxes	-50,000	-30,000	-80,000
-Alimony and child support	0	-40,000	-40,000
-Personal expenses	-20,000	-10,000	-30,000
PCF available to service existing debt	75,000	35,000	110,000
Existing debts	-25,000	-30,000	-55,000
DSC	3.00x	1.17x	2.00x
PCF available to service Reaper and GREAT debt	50,000	5,000	55,000

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Management Checklist for PCF Underwriting

Checklist	Key Elements
1-Data sources	<ul style="list-style-type: none"> •Personal tax returns, personal financial statements, credit bureau reports
2-Income Estimation	<ul style="list-style-type: none"> •Reliable, stable, predictable <ul style="list-style-type: none"> •OK: wages, bond interest, dividends •Not OK: lottery winnings, capital gains, insurance proceeds
3-Expense estimation	<ul style="list-style-type: none"> •Borrowers and guarantors have existing obligations that must be met <ul style="list-style-type: none"> •Loans—mortgage, vehicle loans and leases, student loans, credit cards, other debt? •Priority of payment—pay existing debts vs. new debts? •Priority of payment—pay house and car first, all others second? •Taxes <ul style="list-style-type: none"> •Federal and state income taxes, Medicare and social security, and real estate taxes •Other taxes? •Typical personal living expenses <ul style="list-style-type: none"> •Groceries •Utilities •Transportation •School tuition •Alimony and child support •Other personal expenses?

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Now to Put it all together—GCF & GDSC

- **Borrower:** GREAT (Grimm Real Estate Asset Tower), Inc., S-corporation that owns and operates office building
 - 83%-17% owned by Slim Jim Grimm and Dim Tim Grimm
 - GREAT pays \$30M in annual dividends to Brothers Grimm, \$25M to Slim Jim and \$5M to Dim Tim
- **Grimm Brothers' Reaper Corporation**
 - Owned 50-50 by the Brothers Grimm
 - Each brother is paid annual salary of \$100M
 - occupies 50% of space, and other 50% is leased out to other tenants
 - Reaper pays \$20M rent to Great
- **Guarantors:**
 - Slim Jim Grimm and Dim Tim Grimm
 - Reaper Corporation
- **Collateral**
 - GREAT office building

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GREAT's Cash Flow

- **Income Producing Property Income and Valuation Analysis**

Cash Flow (\$)	2015
Potential Gross income (\$20psf x 20,000sf)	400,000
Less: vacancy (5%)	-20,000
Gross income	380,000
Operating expenses* (\$13psf x 20,000sf)	-260,000
Rollover expenses** (\$2psf x 20,000sf)	- 40,000
Depreciation (750,000 / 15 years)	-50,000
Net Income before dividends (NIBD)	30,000
Dividends	-30,000
Net income after dividends (NIAD)	0
Cash flow available for debt service (NIAD + Depreciation)	50,000
NIBD / 4% cap rate = 30,000 / .04 =	750,000
*utilities, taxes, management fees, maintenance, marketing, insurance, legal, accounting, etc	
**expenses incurred to attract new or renewal tenants—renovation, reconfiguration, redecorating, etc., aka tenant improvements	

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Management Checklist for Income-Producing Property

Checklist	Key Elements
1-Rentable space	•Gross vs. Net Space--Are non-rentable spaces--hallways, stairs, corridors, entrance ways--excluded?
2-Market rate	•Owner-occupier paying a market rate? •Other tenants paying a market rate?
3-Term	•Month-to-month or terms that equal or exceed term of loan?
4-vacancy rate	•Historic rate, market trends?
5-Operating expenses	•Are taxes current? •Is insurance adequate—coverages, deductibles, exclusions? •Who is receiving management fees—related parties? •Reserve for maintenance? •Marketing expenses—what are they and who is being paid—related parties?
6-Rollover expenses	•Cash dollars being paid or rent concessions? •Who is being paid to perform tenant improvements—related parties? •Is dead time from TI construction factored into vacancy rate?
7-Physical appearance	•Repairs and maintenance deferral—curb appeal?
8-Sensitivity analysis	•Interest rates and impact on DSC? •Values—cap rates and impact on LTV?

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Revised GREAT's Cash Flow

- Income Producing Property Valuation

Cash Flow (\$)	2015	Adjustments	2015 Revised
Potential Gross income (\$20psf x 20,000sf)	400,000	\$19psf x 19,000 sf	361,000
Less: vacancy (5%)	-20,000	9.9% vacancy	36,000
Gross income	380,000		325,000
Operating expenses* (\$13psf x 20,000sf)	-260,000	\$12psf x 19,000 sf	-228,000
Rollover expenses** (\$2psf x 20,000sf)	- 40,000	\$3x 19,000	-57,000
Depreciation (750,000 / 15 years)***	-50,000	400,000/20	-20,000
Net Income before dividends (NIBD)	30,000		20,000
Dividends	-30,000		-20,000
Net income after dividends	0		0
Cash flow available for debt service (NIBD + Depreciation)	50,000		40,000
NIBD / 4% cap rate = 30,000 / .04 =	750,000	20,000/.05	400,000
*utilities, taxes, management fees, maintenance, marketing, insurance, legal, accounting, etc			
**expenses incurred to attract new or renewal tenants—renovation, reconfiguration, redecorating, etc., aka tenant improvements			
***depreciation revised from 15 to 20 years			

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Global Cash Flow (GCF)

- How about borrowers' request for a \$500M 3-year, 5% i-only facility secured by the \$750M building?

GCF (\$M)	Reaper (A)	Slim Jim Grimm	Dim Tim Grimm	GREAT	2015 TOTAL	2016	2017	2018
FCF	-48	75	35	50	112	125	150	200
Existing DS	-50	-25	-30	0	-105	-60	- 60	-60
DSC for existing debt	Na	3.00x	1.17x	Na	1.07x	2.08x	2.50x	3.33x
Available for new debt	-98	50	5	50	7	65	90	140
New Debt (\$500)						-25	-25	-25
GCF surplus/deficit						40	65	115
GDSC for all debt						1.47x	1.76x	2.35x
(A) Refer to earlier analysis for details of Reaper's FCF								

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Initial GCF-GDSC Projection's Fatal Assumptions

- (A) Will existing creditors agree to lower projected DS?
- (B) Is interest only realistic?
- Other issues? Great cash flow adjusted from 50 to 40 by analysts

GCF (\$M) & GDSC (x)	2015					Projection		
	Reaper	Slim Jim Grimm	Dim Tim Grimm	GREAT	Total	2016	2017	2018
FCF	-48	75	35	40	112	125	150	200
(A) Existing DS	-50	-25	-30	0	-105	-60	- 60	-60
DSC for existing debt	Na	3.00x	1.17x	Na	1.07x			
Available for new debt	-98	50	5	50	7	65	90	140
(B) New Debt (\$500)						-25	-25	-25
GCF surplus/deficit						40	65	115
GDSC for all debt						1.47x	1.76x	2.35x

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Borrower's GCF-GDSC Projection Revised to \$300M 5-year Loan for a 75% LTV

GCF (\$M) & GDSC (x)	2015					5-Year Projection				
	Reaper	Slim Jim Grimm	Dim Tim Grimm	GREAT	Total	2016	2017	2018	2019	2020
FCF (a)	-48	75	35	40	112	105	130	180	190	200
Existing DS (b)	-50	-25	-30	0	-105	-90	-75	-60	-45	-30
DSC for existing debt	Na	3.00x	1.17x	NA	1.07x	1.17x	1.73x	3.00x	4.22x	6.67x
Available for new debt	-98	50	5	40	7	15	55	130	145	170
New Debt (\$300) (c)						-78	-74	-71	-68	-64
GCF surplus/deficit						-63	-19	59	77	106
GDSC for all debt						0.62x	0.87x	1.37x	1.68x	2.13x

(a) (a) Adjusted to reflect revised cash flow from Great, \$10M less each projected year; plus \$10M less dividend income--\$8.3M less dividend income for Slim Jim and \$1.7M less dividend income for Dim Tim
 (b) (b) Existing debt's actual scheduled repayment
 (c) (c) Adjusted value of \$400M x 75% = \$300M, payable at \$60M for 5 years with 6% interest; interest expense of \$18M, \$14M, \$11M, \$8M, and \$4M for 2016, 2017, 2018, 2019, and 2020 respectively, for total annual P+I of \$78M, \$74M, \$71M, \$68M, and \$64M, respectively.

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Grimm Reaper Summary

- Reaper still has negative cash flow in first 2 years (2016 and 2017) even with smaller \$300M loan

GCF (\$M) & GDSC (x)	Actual	5-Year Projection				
	2015	2016	2017	2018	2019	2020
FCF (a)	112	105	130	180	190	200
Existing DS (b)	-105	-90	-75	-60	-45	-30
DSC for existing debt	1.07x					
Available for new debt	7	15	55	130	145	170
New Debt (\$300) (c)		-78	-74	-71	-68	-64
GCF surplus/deficit		-63	-19	59	77	106
GDSC for all debt	1.07x	0.62x	0.87x	1.37x	1.68x	2.13x

- Projected GDSC @ inception = 0.62x
- Collateral LTV @ inception = \$300M/\$400M = 75%
- Guarantor ANW @ inception = -\$1.45MM
- Credit decision, anyone?

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GCF Cash Flow Options—Zero Sum Game?

GCF Cash Flow Enhancement Options			
Options	Reaper	Brothers Grimm	Great
Increase Cash Inflow	-Raise prices	-Raise salaries -Increase interest and dividend income	-Raise rent -Increase depreciation expense
Decrease Cash Outflow	-Reduce cost of goods sold -Cut overhead -Reduce taxes -renegotiate debt service requirements	-Reduce taxes -Reduce personal expenses -Renegotiate alimony and child care expenses -Renegotiate debt service requirements	-Reduce operating expenses -reduce rollover expenses -reduce dividends -renegotiate debt service requirements

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Polling Question #3

- 3-Owner cash flow can be included in global cash flow if owner is a guarantor
 - ☐ TRUE
 - ☐ FALSE

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Agenda

- Definition of global cash flow (GCF) and global debt service coverage (GDSC)
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Collateral Analysis

- | | |
|---|--|
| <ul style="list-style-type: none">• Assets in existence at loan's inception<ul style="list-style-type: none">• Cash• Investments• Receivables• Inventory• Fixed assets• Intangibles | <ul style="list-style-type: none">• Assets subsequent to loan's inception<ul style="list-style-type: none">• New or replacement assets• Rents, leases, and other pledged cash flows<ul style="list-style-type: none">• Contracts to validate and support certainty of cash flows• Secure receipt of flows via lockbox (cash dominion) |
|---|--|

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Collateral Analysis

- **Analysis**

- Liquidity
 - Now is better than later
- Marketability
 - Commodity vs. one-of-a-kind asset, e.g., red #2 wheat vs. DaVinci's Mona Lisa
 - Publicly traded market vs. no ready and willing buyers
- Perishability
 - Crops and livestock vs. equipment and buildings
 - Expiration of licenses, copyrights, patents

- Typical LTV's
 - Current value at loan's inception is not always value at point of loan's default
 - So maximum LTV should reflect loss given default, 75% LTV means value can decline 25% and remaining value is enough to repay the loan
- Control
 - Physical possession
 - Perfect lien on asset supported by lockbox, physical audit, lockbox
 - Perfected lien on asset
 - Blanket lien
 - Abundance of caution
 - Springing lien
 - Negative pledge
 - Unsecured
 - Claims of other lenders and creditors?

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Collateral Analysis – Degrees of Control

- Physical possession
 - Bonded warehouse
- Perfect lien on asset supported by lockbox, physical audit, lockbox
 - Asset based lending
- Perfected lien on asset
 - Lien perfected on specific asset, e.g., inventory, receivables, equipment via UCC
- Blanket lien
 - Lien on all assets via UCC
- Abundance of caution
 - Lien filed but no collateral value ascribed
- Springing lien
 - Lien arises on borrower's assets if borrower defaults
- Negative pledge
 - Lender is unsecured, but borrower agrees not to pledge assets to any other lender
- Unsecured
 - Lender extends credit with no collateral
- Claims of other lenders and creditors?
 - Landlord lien, Packers & Stockyards Act, Perishable Agricultural Commodities Act

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Collateral Valuation Summary

Collateral Asset Options	Factors to Consider in Collateral Value Analysis				
	Liquidity	Marketability	Perishability	Control	Typical LTV's
Cash					
Investments					
Receivables					
Inventory					
Fixed Assets					
Intangibles					

Collateral Valuation Summary

Collateral Asset Options	Factors to Consider in Collateral Value Analysis				
	Liquidity	Marketability	Perishability	Control	Typical LTV's
Cash	-Immediate -restrictions on liquidation	-face value	Not applicable	Physical Possession	Cash- 90 to 100%
Investments	-margin call	-market value -SEC 144 -closely held stock	-not applicable	--physical possession or tri-party agreement	-50-75%
Receivables	Collection period	-quality of customers	Not applicable	Perfection w/UCC	50-80%
Inventory	Production period	-raw materials (RM) -Work-in-progress WIP) -Finished goods (FG)	Foodstuffs	Perfection w/UCC	RM- 50 to 75% WIP- 20 to 50% FG- 50 to 75%
Fixed Assets	Depends on type of FA	-Depreciated value -mobility	Maintenance	Perfection w/mortgage	Land- 50 to 60% Bldgs-50 to 89% Equip-50 to 75% F&F- 10 to 50%
Intangibles	Depends on type of intangible	-depends on demand for item	Expiration of patent, copyright	Perfection w/UCC	Depends . . .

Reaper Corporation Assets

The company's assets available for collateral:

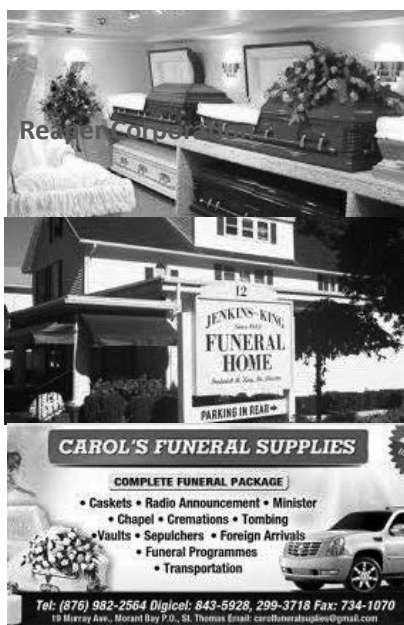
Cash	\$25,000
Receivables. Net	275,000
Inventory:	
• Caskets	\$250,000
• Embalming supplies	100,000
• Burial wardrobes	50,000
• Total	400,000
Net Fixed assets:	
• Land	\$100,000
• Building	50,000
• Equipment	35,000
• Vehicles	15,000
• Total	200,000
Trademark	100,000
Total Assets	\$1,000,000



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Reaper Corporation Assets Available for Collateral	Collateral Valuation Summary						Collateral Value (\$M)
	Current Value (\$)	Liquidity	Marketability	Perishability	Control	LTV %	
Cash	25,000					90	22.5
Receivables, net	275,000					80	220.0
Inv-caskets	250,000					50	125.0
Inv-embalming supplies	100,000					50	50.0
Inv-burial wardrobes	50,000					50	25.0
NFA-land	100,000					80	80.0
NFA-bldg	50,000					80	40.0
NFA-equipment	35,000					50	17.5
NFA-vehicles	15,000					50	7.5
Trademark	100,000					0	0
Total	1,000,000					59	587.5

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The company's Balance Sheet

Total Assets	\$1,000,000
x 58% aggregate LTV	<u>x 0.58</u>
Collateral Asset Value	<u>588,000</u>
-Total Debt	<u>122,000</u>
Adjusted Reaper Corporation Guarantee	<u>\$466,000</u>

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Guarantor Personal Financial Statement (PFS)

- PFS shows Reaper guarantors are worth \$4MM+:

Total assets \$7,243,000

-Total liabilities - 3,106,500

Book Net worth \$4,136,500

- But how much support can guarantor provide if borrower defaults?
- We need to adjust the book net worth for questionable assets & under-reported liabilities

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ANW Template

Total Assets

-Total Liabilities

Net Worth, unadjusted

-declines in value of stocks and bonds

-investment in borrower's firm

-amounts due from related parties, such as affiliates, subsidiaries, parent company, employees, stockholders, and officers.

-fractional ownership interests, that is, less than 50%

-net equity in personal residence if lender does not hold mortgage

-personal assets such as furniture, fixtures, jewelry, art autos, planes, & boats.

-jointly owned assets for which not all jt owners are borrowers or guarantors

-any other assets of unsubstantiated value

-estimated personal and corporate income taxes (for owners of S corporation)

-any other liabilities not already disclosed

+appreciated value of stocks, bonds, and real estate

+overstated portion of any liabilities due to reduced income tax debts or favorable settlement of lawsuits

Net Worth, adjusted

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ANW for Slim Jim Grimm & Dim Tim Grimm*

ANW Summary	Slim Jim	Dim Tim	Total
Total Assets	\$4,641,500	\$2,601,500	\$7,243,000
Total Liabilities	- 108,500	-2,998,000	-3,106,500
Net Worth, Unadjusted	\$4,533,000	(\$396,500)	\$4,136,500
Adjustments:			
- reduction of NYSE Stock to current market value			(\$11,000)
- reduction of junk bonds to current market value			(33,000)
- Investment in cousin' Dum Sim's Asian restaurant partnership			(50,000)
- guarantors' investment in cousin Tree Lim's privately held tree trimming company			(2,000,000)
- guarantors' loan to Dum Sim's restaurant entity			(1,000,000)
- receivable due from brothers' father			(4,000)
- loan to Slim Jim's son for college tuition			(135,000)
- Personal and business vehicles			(260,000)
- Delete face value of life insurance			(1,000,000)
+ Add back cash surrender value of life insurance			+ 40,000
- Life insurance loan			(37,000)
- investment in cousin Win Vin's vineyard in Acapulco, Mexico			(165,000)
- 1965 Mustang, 1987 Dodge Caravan, Boston Whaler boat			(84,000)
- Other personal assets—furnishings, antiques, art, clothing			(400,000)
- Additional consumer debt reported on credit cards			(14,000)
- Estimated capital gains tax on appreciation in home value			(435,000)
Subtotal, Adjustments			(5,588,000)
NET WORTH, ADJUSTED			(1,451,500)

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Typical Questionable Assets and Under-reported liabilities

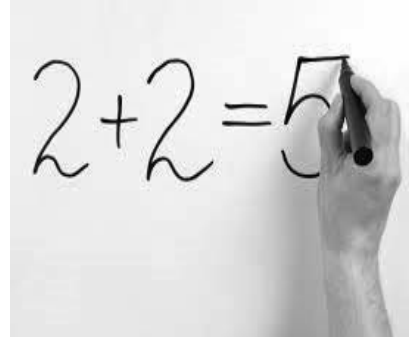
- Questionable assets
 - Interests in privately held company
 - Personal property—cars, jewelry, art, hobby stuff
 - Amounts due from related parties
- Under-reported liabilities
 - Income taxes
 - Capital gains taxes
 - Co-borrowing
 - Guarantees



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Common Errors on PFS

- Stocks, bonds, cars, homes, and other assets are typically valued at original cost because the individual can obtain that information more readily than current market value.
- Insurance is often disclosed at its face value, not its cash surrender value
- Income tax liabilities are usually ignored
- Guarantees of other debts are not disclosed
- Capital gains taxes are not calculated on the equity gains in long-held assets



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Checklist for NW Adjustments

Checklist	Net Worth (NW) Adjustments (See App D for typical errors)
1-Assets	<ul style="list-style-type: none"> •Eliminate from net worth (NW) assets related to the borrower: <ul style="list-style-type: none"> •Investment in the borrowing entity. •Amounts due from borrowing entity. •Any other assets derivative of the borrowing entity or related parties—stockholders, owners, principals, officers, directors, family members, etc. •Eliminate from NW assets of questionable liquidation value: <ul style="list-style-type: none"> •Personal assets, such as household goods, antiques, jewelry, art, cars, planes, boats, etc. •Investments in closely held entities or minority shares of entities. •Reduce NW to reflect market value of all publicly traded securities, such as stocks, bonds, etc.
2-Liabilities	<ul style="list-style-type: none"> •Calculate and subtract from NW <ul style="list-style-type: none"> • estimated taxes on capital gains, income, and other taxes. •Investigate and subtract any extra consumer debt. •Guarantees of other debts
3-Contingencies	<ul style="list-style-type: none"> •Note any pending tax audits, legal action and amounts claimed, e.g., IRS audits, lawsuits, judgments, liens, etc.
3-Math Check	Double-check the PFS for arithmetic errors and omissions, such as guarantees of other debts, pending legal action, IRS audits, etc.

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Polling Question #4

- 4-Does your organization adjust the net worth of personal guarantors?
 - ☐ YES
 - ☐ NO

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Grimm Reaper Summary

- Reaper still has negative cash flow in first year (2016) even with smaller \$300M loan and first 2 years at interest only

GCF (\$M) & GDSC (x)	Actual	5-Year Projection				
	2015	2016	2017	2018	2019	2020
FCF	112	105	130	180	190	200
Existing DS	-105	-90	-75	-60	-45	-30
DSC for existing debt	1.07x					
Available for new debt	7	15	:	130	145	170
New Debt (\$300)	Na	-18	-18	-78	-74	-71
GCF surplus/deficit	7	-3	37	52	71	99
GDSC for all debt	1.07x	0.97x	1.40x	1.30x	1.60x	1.98x

- Projected GDSC @ inception = 0.97x
- Interest only for 2016 and 2017 = \$300M x 6%/yr =18M
- P+I for 2018, 2019, 2020, e.g., \$60M + \$18M = \$78 for 2018, etc.
- Collateral LTV @ inception = \$300M/\$400M = 75%
- Guarantor ANW @ inception = -\$1.45MM
- Credit decision, anyone?

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GREAT Repayment Ability CF, More Collateral, and Guarantees

Repayment Source	Results		
GDSC	2016= 0.97x 2017=1.40x 2018=1.30x 2019=1.60x 2020=1.98x		
Collateral-GREAT (\$400M) Collateral-Reaper (\$588M)	LTV = \$300M/\$400M = 75.0% LTV =\$300M/(\$400M + \$588M) = 30.4%		
Guarantees—Brothers Grimm Guarantee-Reaper Corporation	ANW = (\$1.45M) ANW = \$466M		
GCF Cash Flow Enhancement Options			
Options	Reaper	Brothers Grimm	Great
Increase Cash Inflow	<ul style="list-style-type: none">• Raise prices	<ul style="list-style-type: none">• Raise salaries• Increase interest and dividend income	<ul style="list-style-type: none">• Raise rent• Increase depreciation expense
Decrease Cash Outflow	<ul style="list-style-type: none">• Reduce cost of goods sold• Cut overhead• Reduce taxes• Renegotiate debt service requirements	<ul style="list-style-type: none">• Reduce taxes• Reduce personal expenses• Reduce personal expenses• Renegotiate alimony and child care expenses• Renegotiate debt service requirements	<ul style="list-style-type: none">• Reduce operating expenses• Reduce rollover expenses• Reduce dividends• Renegotiate debt service requirements

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Management GDS Check Grid

Management Check Grid for Global Debt Service				
GDSC Calculation	Global Cash Flow			
	borrower	guarantor	CRE property	Total
FCF	(A)	(B)	(C)	(F)
Existing DS	(D)	(D)	(D)	(D)
New DS	(D)	(D)	(D)	(D)
DSC	(E)	(E)	(E)	(E)
(A) Use FCF available to cover existing debt, which is after T, Div, and Capex (B) Same as A, and for individuals after personal expenses (C) Use NI + depreciation, but check underlying assumptions on rental income psf, rentable space, vacancy rate, operating expenses, and rollover expenses (D) Be sure principal is amortizing over reasonable term and interest rate is realistic (E) Remember that 1.10 DSC means a 10% cushion, so the less reliable your income and expense assumptions, the higher you should set your minimum DSC (F) Ensure that financial statements are same date, projections are realistic; projection period covers the entire term of loan				

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Summary and Closing

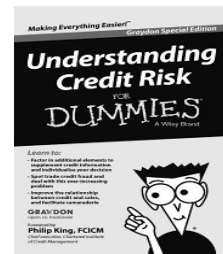
- Regulatory guidance expects repayment evaluation to be accurate, uniform, consistent
- So, standardize your CF measures, collateral evaluation, and guarantee analysis
 - Use global cash flow (GCF) and global debt service coverage (GDSC) to evaluate CF repayment
 - Employ LTV of collateral assets to measure asset liquidation coverage
 - Incorporate net worth adjustment to estimate guarantor support
- Make credit decision based on all repayment sources available to cover all debt & contingent liabilities



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Questions?

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 - LinkedIn at www.linkedin.com/in/dev-strischek-b5b1b93
- For those who have no questions, consult these sources:



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Sources, References, and Other Readings for this Presentation

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 - “Approach Adjusted EBITDA with Caution,” *The RMA Journal*, March 2020, pp. 20-27
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 - “EBITDA: It Doesn’t Spell Cash Flow,” *RMA Journal*, November 2001
 - “How Low Can You Go, How High Can You Fly? The Ups and Downs of Revenue Projections,” *RMA Journal*, Feb 2018, pp. 30-35.
 - “Impact of Working Capital Investment on the Value of a Company,” *RMA Journal*, April 2003
 - “Lessons Learned and Relearned from Today’s Economic Crisis, Part 3: Analyzing a Borrower’s Repayment Ability,” American Banker’s *Commercial Insights*, September 2010
 - “Live and Let Live: Estimating a Realistic Living Expense for Global Debt Service Coverage,” *RMA Journal*, February 2014, pp. 38-43.
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 - Part 1: The Triple Trinities, July 2009
 - Part 2: Working Capital Management’s Impact on Repayment Ability, Aug 2009
 - Part 3: Collateral Evaluation, Sept 2009
 - Part 4: Guarantors, Oct 2009

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Glossary

• ANW	Adjusted net worth	• GDSC	Global debt service coverage
• CA/CL	current assets to current liabilities ratio, aka current ratio	• LOB	Line of Business, e.g., commercial lending, CRE lending, private banking, consumer lending, mortgage banking, etc.
• CADA	cash after debt amortization	• L-T	Long-Term
• Cap Rate	Capitalization Rate	• LTC	Loan to Cost ratio
• CAPEX	Capital expenditures	• LTV	Loan to Value ratio
• CCO	Chief Credit Officer	• Max	Maximum, ≤
• CF	Cash Flow	• Min	Minimum, ≥
• CoREDI	non-REDI borrower who decides to engage in REDI activity, e.g., doctors who borrow to buy office building	• NW	Net Worth
• CRE	Commercial Real Estate	• NWC	Net Working Capital
• CRO	Chief Risk Officer	• %	percentage, e.g., LTV = 80%
• CRM	Credit Risk Management	• PCF	Personal cash flow
• Doc	Documents, documentation	• PFS	Personal financial statement
• DS	Debt Service	• PD	Probability of Default
• DSC	Debt Service Coverage ratio	• RE	Real Estate
• D/W	Debt to Worth ratio	• REDI	Real Estate Developer-Investor, full-time professionals in CRE
• EBITDA	Earnings before interest, taxes, depreciation & amortization	• ROA	Return on Assets
• EBITDAR	EBITDA plus rent expense	• SM	Special Mention, aka ODEM
• FCF	Free Cash Flow	• S-T	Short-Term
• FDICIA	FDIC Investment Act	• TBE	Total Borrower Exposure
• FIT	Federal Income Tax	• X	ratio, e.g., DSC = 1.2X
• GCF	Global Cash Flow		

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