Service Contracts, Warranties and Insurance

Commitment Beyond Numbers

PINNACLE
ACTUARIAL RESOURCES, INC.

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About the Presenter

- Associate of the Casualty Actuarial Society
- 15 years of industry experience
- 7 years of service contract experience
- 2 years with Pinnacle

Agenda

- Brief history of extended service contracts (ESCs)
- ESC example
- Distinction between ESCs and warranties
- Contractual language – ESCs and warranties
- Statutes affecting ESCs and warranties
- Entities underlying ESC transactions
- Pricing
- Reserving

Brief History of ESCs

- 1940s
  - major household appliances
- 1960s
  - automobile warranties
- 1970s
  - decline in auto warranties, creation of ESCs
  - appliance warranties expands with large retailers
  - transitioned to smaller retailers through ESCs
- 1990s
  - EWC Electronics of Florida - bankruptcy of $60 million
- 2000s
  - Flat panel TVs

Today … ESCs

"Would you like a service contract with that?"

- Most retailers offer
- Covers a wide range of products
- Variety of coverages
- Sold directly to consumers

ESC Example

24 Month Date of Purchase (DOP) contract covering consumer electronics (CE) from $100 to $150 excluding cell phones

What are the covered products?

iPods, DVD players, game systems, cameras, etc.

What is the coverage?

If product failure is due to malfunction then repair or replace

Not covered – Accidental Damage and Handling (ADH), Water Damage, Lost/Theft

When does the term begin?

The date the product is purchased

When does the coverage begin?

After the original equipment manufacturer's warranty

Standard OEM periods: 3 months, 12 months, depends on product

Distinction Between ESCs and Warranties

- Separate Consideration – cost above product price
  - ESCs have a separate cost above the purchase price
  - Warranties are part of the sale of the product

- Sale is independent
  - ESCs are sold separately from the covered product and have their own separate agreement
  - Warranties are part of the sales agreement

- Outside the Control of the Manufacturer
  - ESCs cover against defects outside of the manufacturer's control
  - Warranties cover defects within the manufacturer's control

Distinction Between ESCs and Warranties (cont.)

- Indemnity
  - ESCs indemnify against breakdown or failure of covered product
  - Warranties cover defects in the product

- Issued by a third party
  - ESCs can and are often supplied by a third party
  - Warranties are issued by manufacturer or seller of the covered product

Are ESCs and Warranties an Insurance Product?

Griffin Systems vs. Washburn (1987, Illinois)

Key question: Is Griffin Systems in the “business of selling insurance”?

Considerations in the court opinion:

- Contract is for a specific length
- An insurable interest possessed by insured
- Consideration in the form of premium paid by insured to insurer
- An agreement by the insurer to indemnify the insured for a loss to the covered property resulting from a specified peril

Conclusion: ESCs are more like insurance than warranties

Comparison of Contractual Language - iPod

ESC

"This Plan covers parts and labor costs to repair or replace your product in the event the product experiences a breakdown."

- Wal-Mart Service Plan

Warranty

"Apple warrants the Apple-branded iPod hardware product and accessories contained in the original packaging ("Apple Product") against defects in materials and workmanship when used normally in accordance with Apple's published guidelines for a period of ONE (1) YEAR from the date of original retail purchase by the end-user purchaser ("Warranty Period"). Apple's published guidelines include but are not limited to information contained in technical specifications, user manuals and service communications."

- Apple Warranty

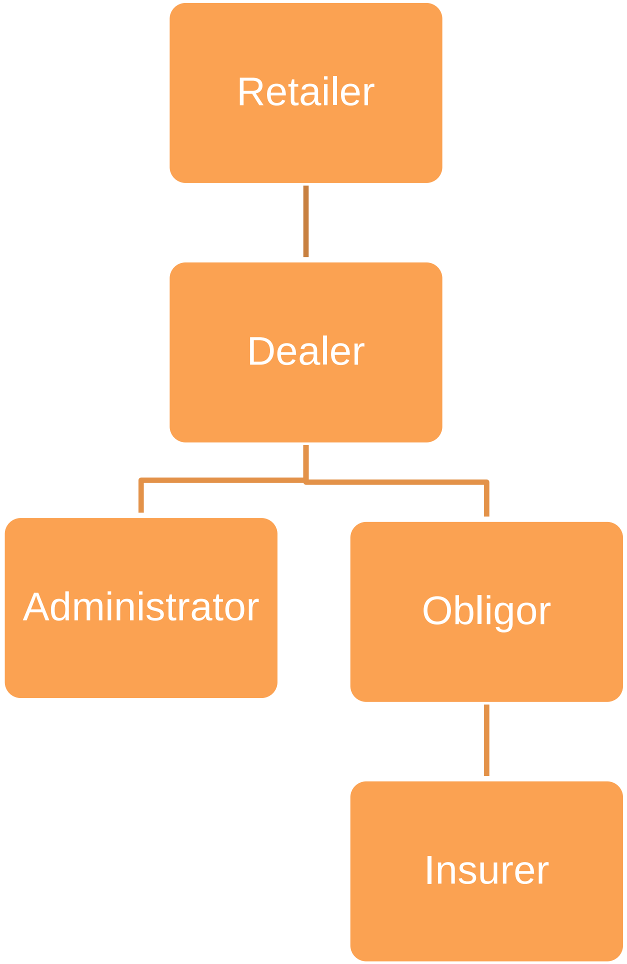
Florida 634 Statute - Highlights

- State law
- One of the most comprehensive
- Provides for consumer protection
- Requires solvency measure
- Service Warranty Associations (SWA)
  - Types
    - Vehicle
    - Home
    - Other
  - Viewed as a limited purpose insurer

Magnuson-Moss Act - Highlights

- Federal law
- Applicability to consumer products costing more than $5
- To protect consumers
- The goods are not as expected

Entities Underlying ESC Transactions



Retailer:

Wal-Mart

Administrator:

National Electronics Warranty (Others)

Asurion Service Plans, Inc. (AL, AZ)

Asurion Service Plans of Florida, Inc. (FL)

Obligor:

Asurion Service Plans, Inc. (Non FL)

Asurion Service Plans of Florida, Inc. (FL)

Insurer:

Continental Casualty Company

Pricing – Considerations

- Underwriting Costs
  - Frequency, severity, insurance costs
  - Underwriting profit
- Administrative Costs
  - Executives, finance/accounting, operations, building, client services, marketing, call center, service center
  - Administrative margin
- Retail Costs
  - Retail margin

Pricing – Underwriting Costs

- Assumptions
  - Frequency (F) - 2.0%
  - Severity (S) - $125
  - Insurance costs (C) - 6.5%
  - Profit and contingencies (P) - 10%

- Underwriting Cost = (F x S) / (1 – C - P)
  - Underwriting cost (or premium) = **$2.99**
  - Expected profit = $0.30

- Reserve per Contract = $2.80 = $2.99 x (1 - 6.5%)

Reserve per Contract is the amount set aside from each contract sold to pay claims

Pricing – Administration Costs

- Assumptions
  - Overhead - $0.65
  - Marketing - $0.35
  - Call center - $0.50 <-- driven by the frequency
  - Administration margin - 30%

- Administration Cost = **$2.14** [= ($0.65 + $0.35 + $0.50) / (1 – 30%)]
  - Administration margin = $0.64

Pricing – Retail Price

- Underwriting cost (or premium) = \$2.99
- Administration cost = \$2.14
- Retail margin = 30%

- Retail cost = **\$7.33** [= (\$2.99 + \$2.14) / (1 – 30%)]
  - Retail margin = \$2.20

- Total profit = \$3.14 [= \$0.30 + \$0.64 + 2.20]
  - 43% of the retail cost

Reserving – Considerations

- Earning patterns
- Purchase month
- Report month
- Payment lag
- Unpaid losses
- Unearned premiums

Reserving – Earning Patterns

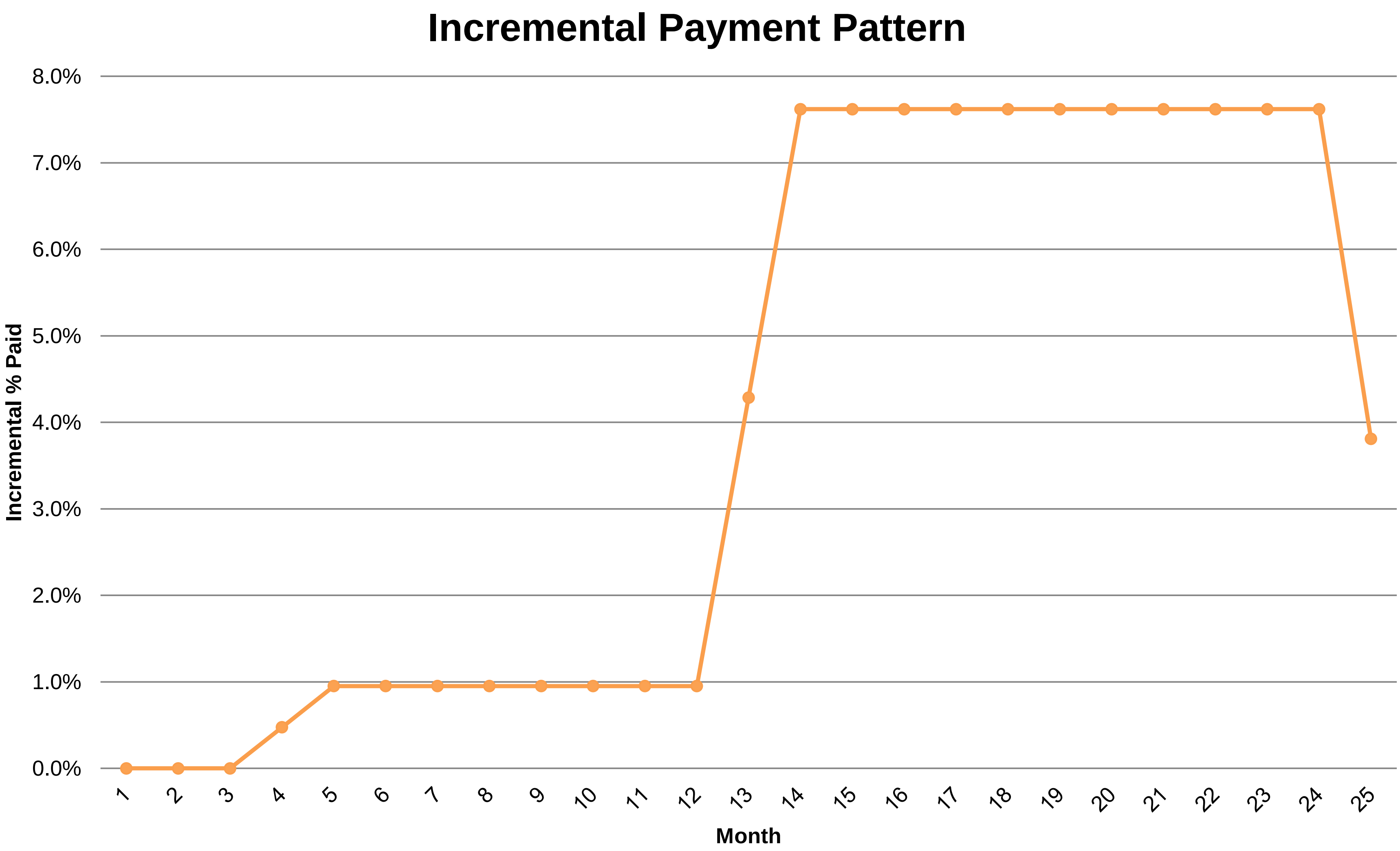
- The pattern represents the percentage of the contract or premium earned since the date of purchase

- Derivation:

  - Based on historical loss experience

  - Based on underlying assumptions of the product

Reserving – Earning Pattern



Reserving – Purchase Month

- 100,000 contracts written in July 2012
- Written reserves = $280,000 [= $2.80 x 100,000]

- % Earned at November 2013 = 42.9%
- Earned contracts = 42,900 [= 42.9% x 100,000]
- Earned reserves = $120,120 [= 42.9% x $280,000]

- % Earned at December 2013 = 50.5%
- Earned contracts = 50,500 [= 50.5% x 100,000]
- Earned reserves = $141,400 [= 50.5% x $280,000]

Reserving – Report Month

- December 2013
- Earned contracts = 7,600 [= 7.6% x 100,000]
- Earned reserves = $21,280 [= 7.6% x $280,000]

Evaluation Month	Earned Reserves	Paid Losses	Loss Ratio
Nov 2013	$120,120	$108,108	90.0%
Dec 2013	$141,400	$127,260	90.0%

Report Month	Earned Reserves	Paid Losses	Loss Ratio
Dec 2013	$21,280	$19,152	90.0%

Reserving – Payment Lag

- Difference between report date and closed date
- ~99% of claims are paid and closed within 90 days of report
- For our example ESC, the 24 month DOP, we might see
  - 40% paid through first month
  - 75% paid through two months
  - 99% paid at the end of month three

Reserving – Unpaid Losses

- Amount of losses still to be processed and paid
- Through 12/31/2013

  - Earned reserves = $141,400

  - Paid losses = $110,688

  - Expected payments = $127,260 (90% loss ratio)

- Unpaid losses = $16,572 at 12/31/2013

- Usually a small portion of the outstanding liabilities

Reserving – Unearned Premium (or Reserve)

- At 12/31/2013, the earned reserve is $141,400
- Written reserves are $280,000
- Unearned reserves are $138,600 at 12/31/2013

- Unearned premium is $148,005 at 12/31/2013
  - = $2.99 x 100,000 x (1 – 50.5%)
  - Includes insurance cost

Summary

- ESCs are a type of "insurance"
- Pricing
  - Frequency
  - Severity
  - Overhead
- Reserving
  - Earning curves
  - Payment lag
  - Purchase vs. report view
  - Unearned premium vs. unpaid losses

Thank You for Your Attention

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