

**UNITED STATES DISTRICT COURT  
MIDDLE DISTRICT OF TENNESSEE - NASHVILLE DIVISION**

CHRISTOPHER GANN, LEANDRE BISHOP,  
KEVIN BURKE, ELISA CABEBE, ISRAEL  
CHIA, KRISTA COSTA, HILLARY DICK,  
JURA GERALD, SEIJI SILER-HYATTE,  
JEANINE INGRASSIA, ARNIKA IRELAND,  
MONTELL JONES, MICHAEL KANZLER,  
ALEXANDRA MCCULLOUGH, TERESE  
MIRANDA, AUTUMN PIERCE, ROBERT H.  
WEINBERG, LASHANDRIKA WILLIAMS,  
AND LAURA WINDOM, individually and on  
behalf of all others similarly situated,

Plaintiff,

v.

NISSAN NORTH AMERICA, INC., a  
California corporation,

Defendant.

Case No. 3:18-cv-00966

**CLASS ACTION**

**DECLARATION OF LEE BOWRON,  
ACAS, MAAA**

District Judge Eli Richardson  
Courtroom 874  
Magistrate Judge Alistair E. Newbern  
Courtroom 774

**JURY TRIAL DEMANDED**

I, Lee Bowron, ACAS, MAAA, hereby declare as follows:

1. I am a member of the American Academy of Actuaries (“MAAA”) and meet its qualification standards for statements of actuarial opinion regarding extended service contract liabilities. I am also an Associate of the Casualty Actuarial Society (“ACAS”). I have worked as a professional actuary for the past twenty-nine years.

2. I co-founded the Kerper Bowron actuarial consulting firm seventeen years ago, and I am currently a Member/Manager of the firm, which is located in Jefferson County, Alabama. I have continued in my role as a Principal and Actuary at the Kerper Bowron Firm since its founding. My practice has and does focus on automotive extended service contracts, GAP coverage, and captive market issues. Further details regarding my qualifications are set forth in my current *curriculum vitae*, which is attached hereto as Exhibit 1.

3. Class Counsel engaged Kerper and Bowron, LLC, to calculate the retail price of the extended warranty covering the transmission and related components in the 2013-2016 Nissan Altima vehicles equipped with continuously variable transmissions (the “Class Vehicles”) for an additional 24 months or 24,000 miles after the manufacturer’s warranty expiration.

4. As set forth in detail in my Report, attached hereto as Exhibit 2 and incorporated by reference, I calculated a range of retail prices for a 24-month extended warranty for the Class Vehicles. Based on the number of Class Vehicles, my analysis and computation resulted in a range of suggested retail prices for this warranty from \$377,088,000 to \$512,395,000, with a point estimate of \$444,741,000. These estimates are made within a reasonable degree of actuarial probability or certainty, as set forth in the Report.

5. These estimated values were calculated in accordance with accepted actuarial standards and principles. My conclusions are based on my education, training, and experience, as well as the information I reviewed, which includes warranty claims spreadsheets for transmission related repairs in the Class Vehicles; the Second Amended Class Action Complaint; and discovery responses provided by Nissan North America, Inc. regarding the subject transmissions at issue, the number of Class Vehicles, and other information.

I declare under penalty of perjury under the laws of United States of America that the foregoing is true and correct, and I would competently testify as to any of the foregoing in a court of law if called upon to do so. Executed this 22nd day of January 2020, at Birmingham, Alabama.



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Lee Bowron, ACAS, MAAA

# **Exhibit 1**

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400 Vestavia Pkwy Ste 131  
205-870-0595

Birmingham, AL 35216  
lee@kerper-bowron.com

# Lee M. Bowron, ACAS, MAAA

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Work

**Kerper and Bowron LLC, Birmingham, AL**

Experience

**Principal**

March 2001 - Present

- Founded consulting firm in March 2001. Clients include insurance companies, state governments, reinsurance companies, managing general agencies and financial consulting firms.
- Practice focuses on extended service contract, GAP, and captive market. Representative projects include:
  - Statutory Loss Reserve Opinion for regional service contract company
  - Product development for a major auto service contract company
  - Evaluation of liabilities for a major risk retention group for auto service contract
  - Auto service contract rate filings for a major auto service contract company
  - Expert testimony on a service contract dispute
  - Development of pro-forma and reinsurance captive accounting for a regional service contract company
  - Acquisition due diligence for purchase of a service contract writers.

**J. Huell Briscoe and Associates, Chicago**

**Vice President**

2013 - Present

- General management and strategic planning for Chicago based reinsurance accounting firm.

**The General Auto Insurance, Nashville, TN**

February 1999 – February 2001

**Vice President and Chief Actuary**

September 1993 – February 1999

**Actuary**

- Broad responsibility for reserving and pricing for a book of private passenger, reinsurance, and captive operations. Responsible for

managing the staff of both the product management and the actuarial department.

- Responsible for developing data warehouse.
- Reported to the CEO and participated in strategic planning, reinsurance strategies and information system implementations.
- Supervised the pricing and product development of a new non-standard program in several states.
- Responsible for all actuarial activities of the company, including ratemaking, reserving and statistical reporting
- Assisted in acquisitions and negotiated loss portfolio transfer of reserve liabilities

**Alfa Insurance Companies, Montgomery, AL**

July 1990 – August 1993

**Actuarial Analyst**

- Ratemaking for 2<sup>nd</sup> largest insurer in the state of Alabama

Education	1989	University of the South	Sewanee, TN
	BS , Mathematics		
Professional activities	Associate, Casualty Actuarial Society		
	Member, American Academy of Actuaries		
	Approved Actuary for Captive Feasibility Studies, Alabama, Oklahoma, Tennessee, South Carolina and the District of Columbia		
	Trustee, Birmingham Historical Society		
	Speaker, CAS Annual Meeting Fall 2007		
	Speaker, Casualty Actuaries of the Southeast, Fall 1998, March 2001, Fall 2007		
	Speaker, Midwest Actuarial Forum Fall 2007		
	Speaker, Southwest Actuarial Forum Spring 2008		
	Speaker, Quebec Actuarial, Spring 2008		
	Panelist, Ratemaking Seminar (2001, 2002)		
	Panelist, Dynamic Financial Analysis Seminar (2001)		
	Panelist, Predictive Modeling Seminar (2008)		
	Former Member, Casualty Actuarial Exam Committee		

Member, CASE Competition Committee

Actuarial liaison to the University of Alabama

Former Member, Ratemaking Committee

Former Chair, Open Source Software Committee

Former Member, Webinar Committee

Publications

“GAP Insurance—Techniques and Challenges”, Casualty Actuarial Society E-Forum, Winter 2011-Volume 2

“An Exposure Based Approach to Automobile Service contract Ratemaking and Reserving” , Casualty Actuarial Society Forum, Spring 2007

“Ratemaking for Maximum Profitability”, published in the 2001 Ratemaking Discussion Forum

“Zipf’s Law”, published in the January 2004 issue of *Contingencies*

“Staying in the Race”, published in the December 2001 issue of *Best’s Review*.

# **Exhibit 2**



**Nissan 24 Month Extended Warranty  
Analysis of Retail Price - Final**

**January 24, 2020**

**Submitted By:  
Kerper and Bowron, LLC  
400 Vestavia Pkwy Suite 131  
Birmingham, AL 35216  
(205) 870-0595  
Fax: (815) 301-6769  
Prepared by: Lee Bowron, ACAS, MAAA**



**Nissan CVT 24 Month/24,000 Warranty Extension  
Analysis of Retail Price**

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# Nissan CVT 24 Month/24,000 Warranty Extension Analysis of Retail Price

## Purpose of Report

At the request of the Class Counsel, Kerper and Bowron LLC was engaged to calculate a retail price for an extended service contract covering the transmission and related components for 24 months or 24,000 miles after the manufacturer’s warranty. I have performed a review, and my findings are set forth below.

The vehicles eligible for extended warranties are equipped with Continuously Variable Transmissions (CVTs) and include the following vehicles.

- Altima for the 2013 to 2016 Model Years
- Juke for 2013 to 2017 Model Years
- Sentra for the 2013 to 2017 Model Years, Versa for the 2012 to 2017 Model Years, and Versa Note for the 2014 to 2017 Model Years

These 3 breakouts are the vehicles covered by separate class action settlements. Therefore, the results are aggregated for each of the categories above.

The retail prices were calculated for a 24 month or 24,000-mile extension to the transmission portion of the warranty, which is 60 months or 60,000 miles.

The data and conclusions in this report are provided to support the proposed settlements and may not be appropriate for any other purpose.

## Executive Summary

Our point estimate suggested retail price for the extended warranty is shown in the table below:

### Nissan 24K/24 Month Extension Expected Retail Costs (000s)

	(1)	(2)	(3)
	Vehicles		Retail
	in	Retail Price	Price
Models in Case	Class	Point Estimate	Cost per Warranty
Altima	1,419,641	444,741	313
Juke	143,224	19,929	139
Sentra-Versa-Versa Note	1,677,774	477,445	285

## **Nissan CVT 24 Month/24,000 Warranty Extension Analysis of Retail Price**

The retail price of a service contract is typically made up of 3 components: a loss fund, administrator cost, and marketing fee. The loss fund is generally the expected amount of losses plus a margin for premium taxes and profit. The administrator will receive a fee for administering the product, such as issuing the service contract, adjudicating claims and processing transfer and other transactions. The marketer will receive a fee for selling the product.

Adding the insurance, administrator and marketer pieces, we calculated a range of suggested retail prices for this warranty.

### **Scope and Limitations**

#### *Data Reliance*

In performing this analysis, we relied upon data and other information provided to us by Class Counsel and Nissan North America (Nissan), as well as industry sources of data. We did not independently audit or verify this data and information as such a review was beyond the scope of our assignment. We have no reason to believe it is inaccurate or incomplete and did not find material defects in the data.

#### *Significant Digits*

Numbers in the exhibits are generally shown to more significant digits than their accuracy suggests. This has been done to simplify review of the calculations.

#### *Interpretation of Conclusions*

Some of the assumptions, methods, and conclusions in this report are of a significantly technical nature. The recipient should understand the assumptions, methodology and possible variability in results that are inherent in our conclusions.

#### *Uncertainty*

Due to the uncertainties inherent in the estimation of future costs, it cannot be guaranteed that the estimates set forth in the report will not prove to be inadequate or excessive and actual costs may vary significantly from our estimates.

#### *Unanticipated Changes*

Unanticipated changes in factors such as judicial decisions, legislation actions, claim consciousness, claim management, claim settlement practices, and economic conditions may alter the conclusions.

## **Nissan CVT 24 Month/24,000 Warranty Extension Analysis of Retail Price**

### *Best Estimate*

These caveats and limitations notwithstanding, the conclusions represent our best estimate of the suggested retail price for this extended warranty, and are made within a reasonable degree of actuarial probability or certainty.

### **Number of Vehicles Affected**

The number of vehicles in each class described above is in the table below:

Table 1

<b>Make</b>	<b>Class Vehicles</b>
Altima	1,419,641
Juke	143,224
Sentra-Versa - Versa Note	1,677,774

The settlement documents indicate that the warranty will begin after the final approval of the settlement. However, claims occurring before final approval will be reimbursed, subject to some constraints. Our estimate is based on all claims which are projected to occur after the expiration of the original underlying manufacturer's warranty but within the 24 months/24,000-mile extension.

### **Data Analyzed**

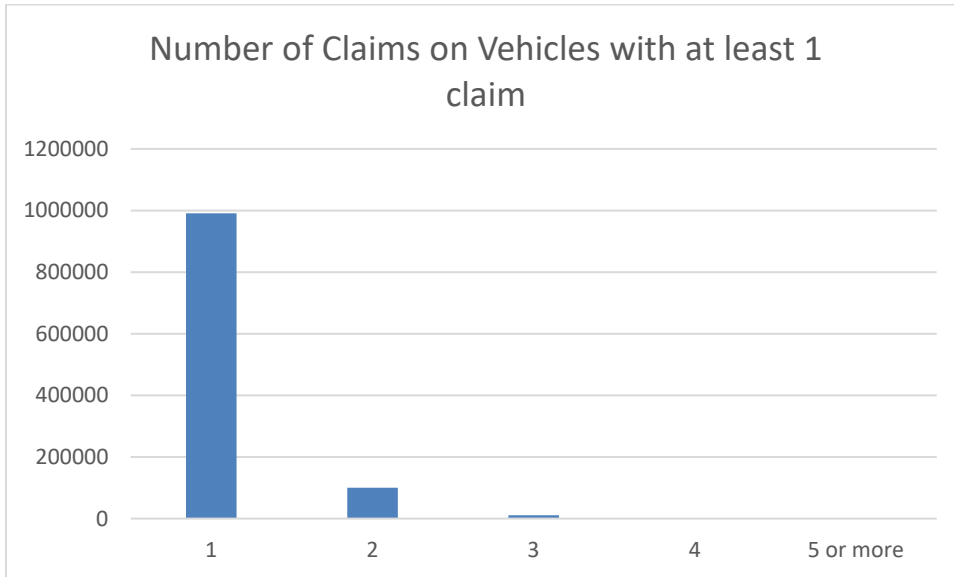
The following data was provided by Class Counsel and Nissan:

- Complaints, Motions for Preliminary Approvals, and Settlement Agreements for the 3 class actions
- Detailed listing of all warranty claims paid through approximately May 15, 2019.
- Nissan's response to discovery queries posed by Plaintiff's counsel
- An analysis by Nissan of the CVT incidence rates for the subject vehicles

The detailed data was extensive and noted the mileage, claim date, paid amount, cause of loss and other factors.

## Nissan CVT 24 Month/24,000 Warranty Extension Analysis of Retail Price

Chart 1



A percentage of claims appeared to be paid outside of the Manufacturer's Warranty of 60 months and 60,000 miles.

For the analysis, claims outside the warranty were not considered because it is not clear if the claims being paid Out-of-Warranty are a complete set of claims because Nissan was not obligated to pay these claims.

Claims were excluded that were older than 61 months or over 60,100 miles at the time of the claim. The slightly additional time is to account for claims which might be paid to accommodate customers.

About 18% of the claims were estimated to be out of the Manufacturer's Warranty. About 4% of claims were outside the warranty extension of 24 months and 24,000 miles.

### Major and Minor Claims

There are several different types of claims related to CVTs. These included relatively minor inspections to full transmission replacements.

Exercising our professional judgment, we assigned any claim over \$2,500 as a Major claim, which would typically be a transmission replacement.

The reason for separating these claims is that this allowed the focus of the analysis to be on modelling the future exposure of the Major claims. Minor claims, which have higher incidence rates and lower severities, might distort the model and are a relatively small percentage of the overall liability to Nissan.

The Minor claims were assumed to be in proportion to their historical average and added to the projected Major claims to form the ultimate estimated cost for Nissan.

# **Nissan CVT 24 Month/24,000 Warranty Extension Analysis of Retail Price**

## **Development of Expected Losses**

The estimate of expected losses is further discussed below. The general formula utilized is:

(Number of vehicles in extended warranty period (or Exposures) x  
Frequency of Major Claims in extended warranty period x  
Severity of Major Claims in extended warranty period) +  
Estimate of Minor Claims

## **Development of Exposures**

Nissan provided the number of eligible vehicles by Make and Model Year. Also provided in the detailed data was the in-service date of each vehicle which had a claim. Using this data, we estimated the quarter and year that each vehicle was sold.

For each quarter, the number of vehicles was divided by 4 to form annual exposures. In addition, a number of vehicles will drive more than the 60,000 miles underlying the manufacturer's warranty. For this reason, the number of eligible vehicles will decrease each month as more vehicles "mile out." The claims data provided indicated the mileage at the time of the claim as well as the in-service date of the vehicle. Using this information, we reduced exposures using the factors on Exhibit 2.

In a similar way, exposure estimates were formed for the 24 months/24,000-mile extension.

## **Frequency of Problem**

Frequency of transmission problems were calculated by using the developed exposures by calendar year and quarter with the number of major claims divided by the exposures for each quarter. We also examined exposures by age and time but noted no credible change in exposure periods over time. Frequency estimates are on Exhibit 3. The frequencies for the Juke model are low compared to other Nissan models.

## **Severity of Repair**

Severity estimates are included on Exhibit 4. Because severity is subject to increases over time, we selected a current severity and an inflationary estimate and adjusted the expected claims cost over time. In general, severities were stable and inflationary measures did not significantly diverge from recent inflation patterns.

## **Development of Expected Loss**

On Exhibit 5, the expected losses were developed using the selected frequency, severity and exposures to calculate the expected loss for each quarter.

## **Nissan CVT 24 Month/24,000 Warranty Extension Analysis of Retail Price**

### **Minor Cost Provision**

As noted above, the analysis only considers claims above \$2,500. The historical percentage of claims below \$2,500 is examined and this margin is added to the expected loss. This can be seen on Exhibit 6.

### **Insurance Expenses**

Insurance expenses are relatively small and reflect premium tax and a profit margin for the cost of capital. The amount selected was 2.5% for premium taxes and 4% for profit, for a 6.5% margin.

### **Administrative Costs**

We estimated administrative costs to be \$37.50 on this program which is consistent with other types of programs for small service contracts. Since the Juke model has a significantly lower cost per exposure, we reduced administrative expenses on this program by 50%.

### **Marketing Fee**

Markups on these programs by auto dealers or service contract writers vary widely, but are usually around 100% (with direct marketed programs having, in general, even higher markups). Often the markups are flat and since the service contract cost is low, the percentage markup would likely be higher in the marketplace, but we have conservatively selected a 100% markup on loss cost and administrator cost.

### **Range of Results**

As this is a point estimate and the actual results are subject to deviation, we formed a range of reasonable estimates. This does not mean that the actual results will be within this range, rather that the expected value of the retail price of the program can be reasonably ascertained within this range.

For the expected loss estimate, we created a range of +/-20%. We did not form a range around the other elements, such as markup, insurance costs and administrative fees. However, since some of these elements are a function of the expected losses, lower expected losses will result in lower estimates for these items as well.

**Nissan 24K/24 Month Extension  
Development of Expected Liability (000s)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Model	Vehicles in Class	Expected Costs	Insurance Costs	Administrative Cost per Warranty	Administrative Costs	Retail Markup	Retail Price Point Estimate	Retail Price Cost per Warranty	Retail Price Low End of Range	Retail Price High End of Range
Altima	1,419,641	158,140	10,994	37.50	53,237	222,371	444,741	313	377,088	512,395
Juke	143,224	6,806	473	18.75	2,685	9,965	19,929	139	17,018	22,841
Sentra	1,009,708	113,773	7,909	37.50	37,864	159,546	319,092	316	270,419	367,765
Versa	426,202	33,518	2,330	37.50	15,983	51,830	103,660	243	89,321	117,999
Versa Note	241,864	17,088	1,188	37.50	9,070	27,346	54,692	226	47,382	62,002
By Case										
Altima	1,419,641	158,140	10,994	37.50	53,237	222,371	444,741	313	377,088	512,395
Juke	143,224	6,806	473	18.75	2,685	9,965	19,929	139	17,018	22,841
Sentra-Versa-Versa Note	1,677,774	164,378	11,427	37.50	62,917	238,722	477,445	285	407,122	547,767

- (2) (7) from Ex VI
- (3)  $[(2) \div .935] - (2)$
- (5)  $(4) \times (1) \div 1000$
- (6)  $(2) + (3) + (5)$
- (7)  $(6) \times 2$
- (8)  $(7) \div (1) \times 1000$
- (9)  $[(2) \times .8 + [(2) \times .8] \div .935 + (5)] \times 2$
- (10)  $[(2) \times 1.2 + [(2) \times 1.2] \div .935 + (5)] \times 2$



**Nissan 24K/24 Month Extension  
Development of Loss Estimate - Altima**

	(1)	(2)	(3)	(4)
	<b>Altima</b>			
	Settlement Exposures	Expected Claims	Expected Severity	Expected Losses (000s)
201103	-	-	3,202	-
201104	-	-	3,209	-
201201	-	-	3,215	-
201202	-	-	3,221	-
201203	-	-	3,228	-
201204	-	-	3,234	-
201301	3	0	3,241	0
201302	9	0	3,247	1
201303	32	1	3,254	2
201304	95	2	3,260	5
201401	269	5	3,267	15
201402	674	11	3,273	37
201403	1,539	26	3,280	86
201404	3,094	53	3,286	173
201501	5,595	95	3,293	313
201502	9,128	155	3,300	512
201503	13,510	230	3,306	759
201504	18,593	316	3,313	1,047
201601	24,004	408	3,319	1,355
201602	29,747	506	3,326	1,682
201603	35,588	605	3,333	2,016
201604	41,567	707	3,339	2,360
201701	47,554	808	3,346	2,705
201702	53,541	910	3,353	3,052
201703	62,513	1,063	3,359	3,570
201704	72,441	1,232	3,366	4,145
201801	84,723	1,440	3,373	4,858
201802	95,065	1,616	3,380	5,462
201803	104,483	1,776	3,386	6,015
201804	111,045	1,888	3,393	6,406
201901	116,722	1,984	3,400	6,747
201902	119,948	2,039	3,407	6,947
201903	119,018	2,023	3,414	6,907
201904	115,563	1,965	3,420	6,720
202001	109,828	1,867	3,427	6,399
202002	104,044	1,769	3,434	6,074
202003	98,364	1,672	3,441	5,754
202004	93,128	1,583	3,448	5,459
202101	90,737	1,543	3,455	5,329
202102	84,716	1,440	3,462	4,985
202103	75,548	1,284	3,469	4,455
202104	65,453	1,113	3,476	3,867
202201	53,892	916	3,483	3,191
202202	43,293	736	3,489	2,568
202203	32,917	560	3,496	1,957
202204	23,789	404	3,503	1,417
202301	12,035	205	3,510	718
202302	5,052	86	3,517	302
202303	1,812	31	3,525	109
202304	418	7	3,532	25
202401	82	1	3,539	5
202402	27	0	3,546	2
202403	12	0	3,553	1
202404	7	0	3,560	0
202501	-	-	3,567	-

Frequency	1.7%
Severity	3,400
Trend	0.8%

Total 126,512

- (2) (1) x Frequency
- (3) Severity x [1+ [Trend ÷ 4]]^[Number of Quarters from 201901]
- (4) (2) x (3) ÷ 1000

**Nissan 24K/24 Month Extension  
Development of Loss Estimate - Juke**

	(1)	(2)	(3)	(4)
	<b>Juke</b>			
	Settlement Exposures	Expected Claims	Expected Severity	Expected Losses (000s)
201103	-	-	3,218	-
201104	-	-	3,230	-
201201	-	-	3,242	-
201202	-	-	3,254	-
201203	-	-	3,266	-
201204	-	-	3,278	-
201301	0	0	3,291	0
201302	1	0	3,303	0
201303	4	0	3,315	0
201304	13	0	3,328	0
201401	37	0	3,340	1
201402	91	1	3,353	2
201403	208	2	3,365	6
201404	418	3	3,378	11
201501	755	6	3,391	20
201502	1,228	10	3,403	33
201503	1,809	14	3,416	49
201504	2,472	20	3,429	68
201601	3,160	25	3,442	87
201602	3,865	31	3,455	107
201603	4,543	36	3,468	126
201604	5,190	42	3,481	145
201701	5,776	46	3,494	161
201702	6,294	50	3,507	177
201703	7,160	57	3,520	202
201704	8,107	65	3,533	229
201801	9,346	75	3,547	265
201802	10,308	82	3,560	294
201803	11,148	89	3,573	319
201804	11,631	93	3,587	334
201901	12,081	97	3,600	348
201902	12,296	98	3,614	355
201903	11,908	95	3,627	346
201904	11,167	89	3,641	325
202001	10,096	81	3,654	295
202002	9,119	73	3,668	268
202003	8,203	66	3,682	242
202004	7,495	60	3,696	222
202101	6,994	56	3,709	208
202102	6,342	51	3,723	189
202103	5,635	45	3,737	168
202104	5,045	40	3,751	151
202201	4,461	36	3,765	134
202202	3,904	31	3,780	118
202203	3,285	26	3,794	100
202204	2,698	22	3,808	82
202301	1,853	15	3,822	57
202302	1,302	10	3,837	40
202303	984	8	3,851	30
202304	725	6	3,865	22
202401	458	4	3,880	14
202402	252	2	3,894	8
202403	125	1	3,909	4
202404	36	0	3,924	1
202501	6	0	3,938	0

Frequency	0.8%
Severity	3,600
Trend	1.5%

Total 6,364

- (2) (1) x Frequency
- (3) Severity x [1+ [Trend ÷ 4]]^[Number of Quarters from 201901]
- (4) (2) x (3) ÷ 1000

**Nissan 24K/24 Month Extension  
Development of Loss Estimate - Sentra**

	(1)	(2)	(3)	(4)
	<b>Sentra</b>			
	Settlement Exposures	Expected Claims	Expected Severity	Expected Losses (000s)
201103	-	-	3,128	-
201104	-	-	3,140	-
201201	-	-	3,152	-
201202	-	-	3,164	-
201203	-	-	3,175	-
201204	-	-	3,187	-
201301	1	0	3,199	0
201302	4	0	3,211	0
201303	14	0	3,223	1
201304	41	1	3,235	3
201401	116	2	3,248	8
201402	291	6	3,260	19
201403	668	13	3,272	44
201404	1,352	27	3,284	89
201501	2,470	49	3,297	163
201502	4,093	82	3,309	271
201503	6,194	124	3,321	411
201504	8,765	175	3,334	584
201601	11,691	234	3,346	782
201602	14,962	299	3,359	1,005
201603	18,413	368	3,371	1,242
201604	21,957	439	3,384	1,486
201701	25,450	509	3,397	1,729
201702	28,867	577	3,409	1,968
201703	33,498	670	3,422	2,293
201704	38,522	770	3,435	2,647
201801	44,575	892	3,448	3,074
201802	50,038	1,001	3,461	3,464
201803	55,718	1,114	3,474	3,871
201804	60,976	1,220	3,487	4,252
201901	66,535	1,331	3,500	4,657
201902	71,015	1,420	3,513	4,990
201903	73,322	1,466	3,526	5,171
201904	74,022	1,480	3,540	5,240
202001	73,462	1,469	3,553	5,220
202002	72,252	1,445	3,566	5,153
202003	70,243	1,405	3,579	5,029
202004	67,613	1,352	3,593	4,859
202101	66,390	1,328	3,606	4,789
202102	62,995	1,260	3,620	4,561
202103	58,435	1,169	3,633	4,246
202104	55,203	1,104	3,647	4,027
202201	53,191	1,064	3,661	3,894
202202	50,468	1,009	3,675	3,709
202203	45,938	919	3,688	3,389
202204	41,000	820	3,702	3,036
202301	32,665	653	3,716	2,428
202302	26,544	531	3,730	1,980
202303	22,185	444	3,744	1,661
202304	17,327	347	3,758	1,302
202401	11,125	223	3,772	839
202402	6,154	123	3,786	466
202403	3,061	61	3,800	233
202404	864	17	3,815	66
202501	137	3	3,829	10

Frequency	2.0%
Severity	3,500
Trend	1.5%

Total 110,360

- (2) (1) x Frequency
- (3) Severity x [1+ [Trend ÷ 4]]^[Number of Quarters from 201901]
- (4) (2) x (3) ÷ 1000

**Nissan 24K/24 Month Extension  
Development of Loss Estimate - Versa**

	(1)	(2)	(3)	(4)
	<b>Versa</b>			
	Settlement Exposures	Expected Claims	Expected Severity	Expected Losses (000s)
201103	-	-	3,085	-
201104	-	-	3,095	-
201201	1	0	3,105	0
201202	2	0	3,115	0
201203	8	0	3,125	0
201204	23	0	3,135	1
201301	63	1	3,145	3
201302	157	2	3,155	6
201303	353	5	3,166	15
201304	696	9	3,176	29
201401	1,226	16	3,186	51
201402	1,948	25	3,197	81
201403	2,804	36	3,207	117
201404	3,752	49	3,218	157
201501	4,756	62	3,228	200
201502	5,809	76	3,238	245
201503	6,883	89	3,249	291
201504	7,981	104	3,260	338
201601	9,084	118	3,270	386
201602	10,191	132	3,281	435
201603	11,984	156	3,291	513
201604	14,134	184	3,302	607
201701	16,192	211	3,313	697
201702	17,864	232	3,324	772
201703	19,595	255	3,334	849
201704	20,958	272	3,345	911
201801	22,445	292	3,356	979
201802	23,758	309	3,367	1,040
201803	24,506	319	3,378	1,076
201804	24,751	322	3,389	1,090
201901	25,095	326	3,400	1,109
201902	25,435	331	3,411	1,128
201903	25,456	331	3,422	1,132
201904	25,521	332	3,433	1,139
202001	25,456	331	3,444	1,140
202002	25,190	327	3,456	1,132
202003	24,664	321	3,467	1,112
202004	24,020	312	3,478	1,086
202101	24,247	315	3,489	1,100
202102	23,496	305	3,501	1,069
202103	22,031	286	3,512	1,006
202104	20,821	271	3,524	954
202201	19,916	259	3,535	915
202202	18,782	244	3,546	866
202203	17,043	222	3,558	788
202204	15,053	196	3,570	699
202301	11,567	150	3,581	538
202302	9,023	117	3,593	421
202303	7,342	95	3,604	344
202304	5,652	73	3,616	266
202401	3,613	47	3,628	170
202402	1,997	26	3,640	95
202403	993	13	3,652	47
202404	281	4	3,663	13
202501	44	1	3,675	2

Frequency	1.3%
Severity	3,400
Trend	1.3%

Total 29,160

- (2) (1) x Frequency
- (3) Severity x [1+ [Trend ÷ 4]]^[Number of Quarters from 201901]
- (4) (2) x (3) ÷ 1000

**Nissan 24K/24 Month Extension  
Development of Loss Estimate - VersaNote**

	(1)	(2)	(3)	(4)
	<b>VersaNote</b>			
	Settlement Exposures	Expected Claims	Expected Severity	Expected Losses (000s)
201103	-	-	3,202	-
201104	-	-	3,209	-
201201	-	-	3,215	-
201202	-	-	3,221	-
201203	-	-	3,228	-
201204	-	-	3,234	-
201301	-	-	3,241	-
201302	-	-	3,247	-
201303	-	-	3,254	-
201304	0	0	3,260	0
201401	1	0	3,267	0
201402	3	0	3,273	0
201403	8	0	3,280	0
201404	24	0	3,286	1
201501	65	1	3,293	3
201502	158	2	3,300	6
201503	348	4	3,306	14
201504	682	8	3,313	27
201601	1,206	14	3,319	48
201602	1,930	23	3,326	77
201603	2,830	34	3,333	113
201604	3,855	46	3,339	154
201701	4,964	60	3,346	199
201702	6,146	74	3,353	247
201703	7,381	89	3,359	298
201704	8,661	104	3,366	350
201801	9,942	119	3,373	402
201802	11,316	136	3,380	459
201803	12,962	156	3,386	527
201804	14,913	179	3,393	607
201901	16,954	203	3,400	692
201902	18,534	222	3,407	758
201903	19,734	237	3,414	808
201904	20,526	246	3,420	843
202001	21,278	255	3,427	875
202002	21,557	259	3,434	888
202003	21,342	256	3,441	881
202004	20,344	244	3,448	842
202101	19,604	235	3,455	813
202102	18,152	218	3,462	754
202103	16,276	195	3,469	677
202104	14,521	174	3,476	606
202201	12,722	153	3,483	532
202202	10,992	132	3,489	460
202203	9,107	109	3,496	382
202204	7,373	88	3,503	310
202301	4,976	60	3,510	210
202302	3,443	41	3,517	145
202303	2,573	31	3,525	109
202304	1,883	23	3,532	80
202401	1,186	14	3,539	50
202402	654	8	3,546	28
202403	325	4	3,553	14
202404	92	1	3,560	4
202501	14	0	3,567	1

Frequency	1.2%
Severity	3,400
Trend	0.8%

Total 15,294

- (2) (1) x Frequency
- (3) Severity x [1+ [Trend ÷ 4]]^[Number of Quarters from 201901]
- (4) (2) x (3) ÷ 1000

**Nissan 24K/24 Month Extension  
Minor Claims Provision (000s)**

	(1)	(2)	(3)	(4)	(5)
Model	Expected Major Costs	Percentage Historical Minor	Selected Historical Minor	Expected Minor Costs	Expected Total Costs
Altima	126,512	20.2%	20.0%	31,628	158,140
Juke	6,364	6.4%	6.5%	442	6,806
Sentra	110,360	3.1%	3.0%	3,413	113,773
Versa	29,160	13.2%	13.0%	4,357	33,518
Versa Note	15,294	10.7%	10.5%	1,794	17,088

- (1) Sum of (4) From Ex V
- (4)  $(3) \times (1) \div [1-(3)]$
- (5)  $(1) + (4)$