Simulating Reserve Effects of North Carolina UI Reforms

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Division of Employment Security.

Simulating NC UI Reserves

- Background
- Methodology
- Plan for Simulations
- Simulation Results:
  - – Do nothing scenario
  - – Balanced bundles of changes
  - – Solvency taxes and bonding
  - – Restoring 1992 tax and benefit rules
- Summary

Background 1

- UI provides temporary partial income replacement to involuntary joblessness labor force members.
- The North Carolina UI system meets the accepted standard of benefit adequacy:
  - 50 percent wage replacement for about 80 percent of beneficiaries
  - Maximum weekly benefit amount (WBA) is set at 2/3 of average weekly wage (AWW)

Background 2

- Balanced financing means: revenues match expenditures on average over business cycles.
- Sufficient funding means: reserves of at least one year of UI benefits at the twenty year average high cost rate (AHCR).
- The North Carolina AHCR is 1.54 percent of total payrolls of taxable employers or $1.9 billion for 2011.

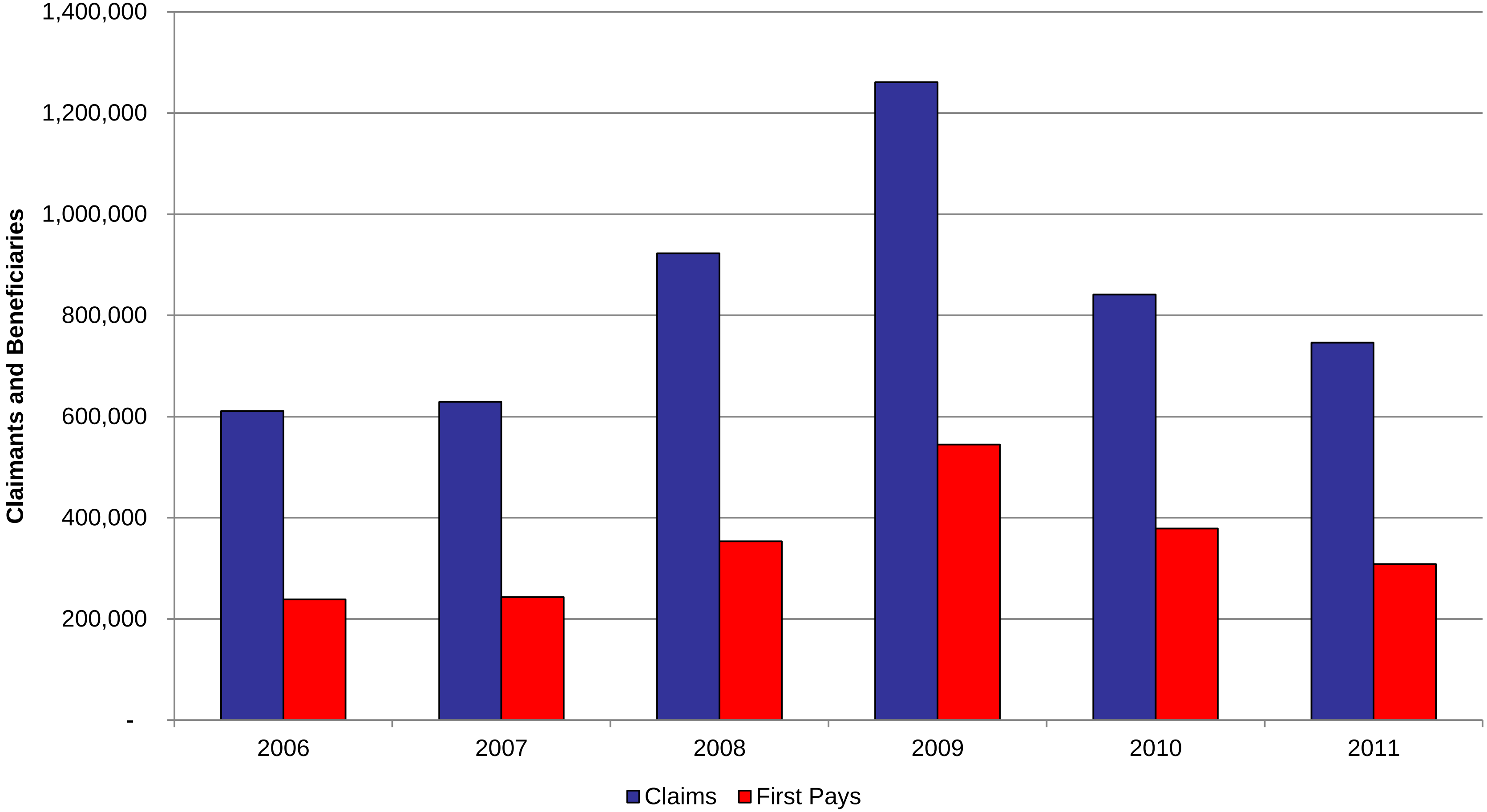
Background 3

- USDOL regulation on UI forward funding: Federal Register on September 17, 2010 as 20 CFR Part 606.
- For interest free short-term borrowing privileges, states must have UI reserves equal to the AHCR by 2019.
- Reserves must be half the target in 2014 increasing by ten percentage points per year to reach 1.0 in 2019 and thereafter.

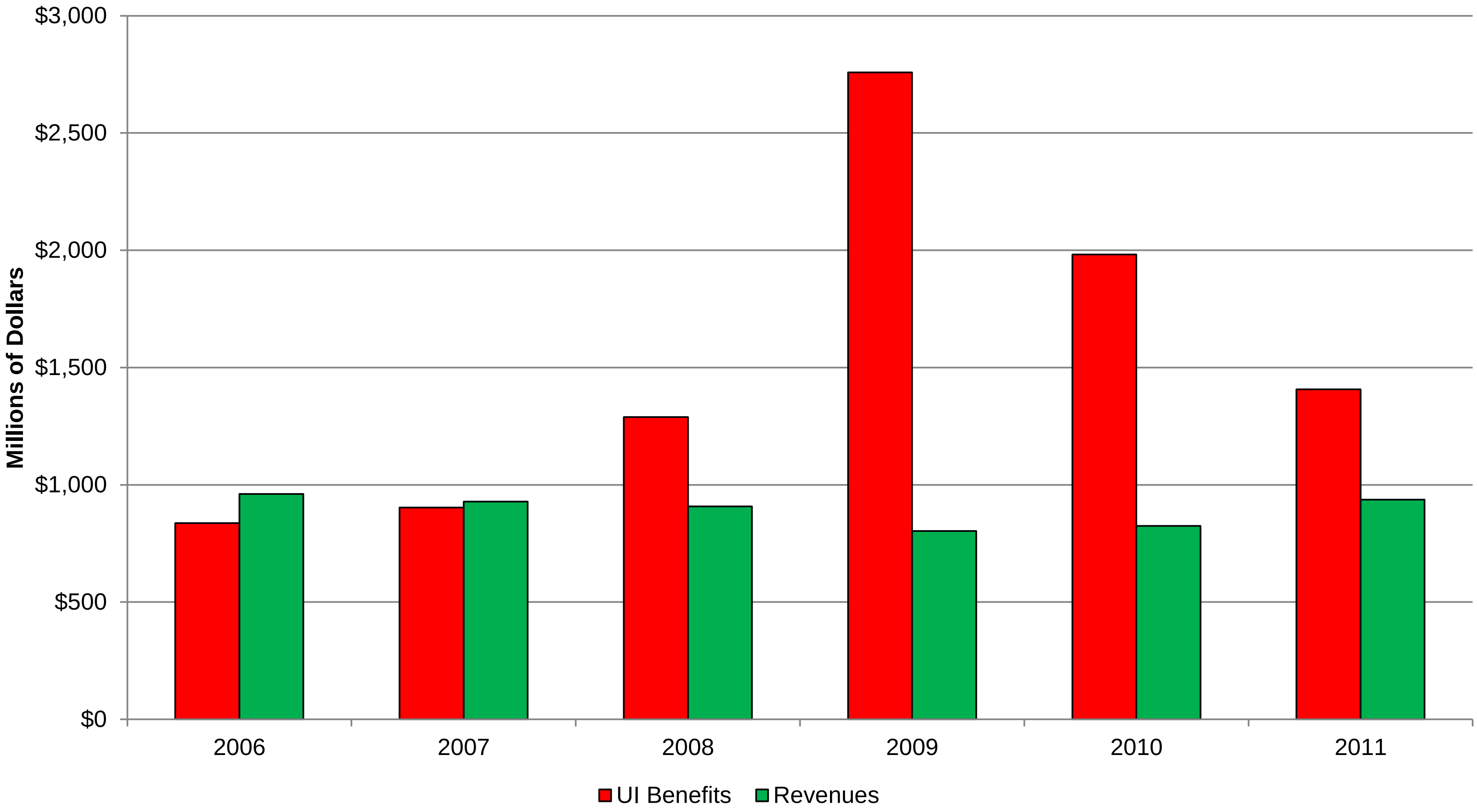
Background 4

Year	HCM	Required UI Reserves ($millions)
2013	0.0	$0
2014	0.5	$990
2015	0.6	$1,217
2016	0.7	$1,453
2017	0.8	$1,695
2018	0.9	$1,946
2019	1.0	$2,204
2020	1.0	$2,245

Recent NC UI Claim Activity



Recent Benefits and Revenues



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Methodology 1

- Simulations were done with the Benefit Financing Model (BFM) at the U.S. Department of Labor (USDOL).
- The BFM is an econometric forecasting model for projecting state UI reserves.
- The BFM requires input forecasts of: (1) Total unemployment rate, (2) Wage growth rate, (3) Labor force growth rate.

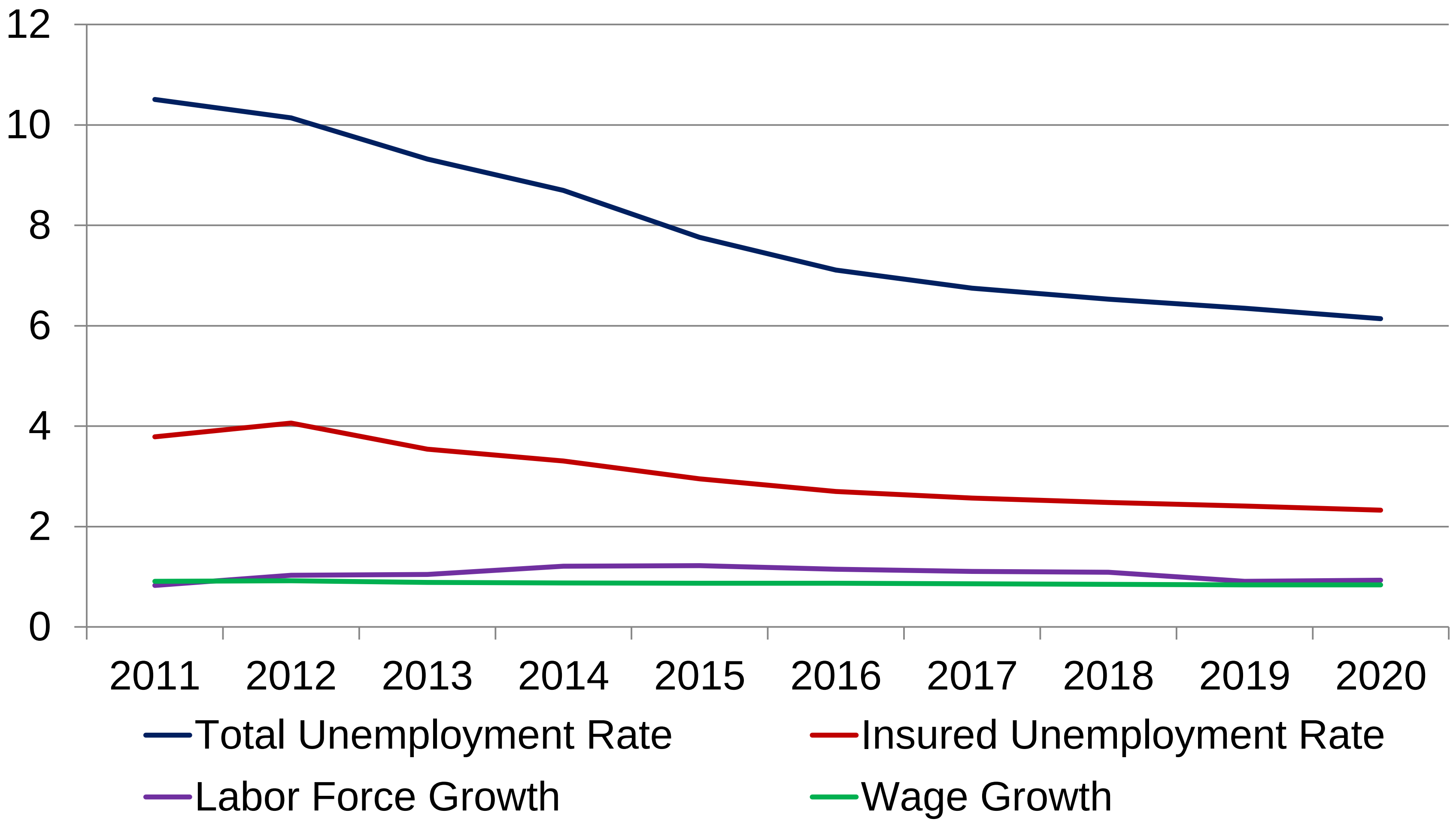
Methodology 2

- Simulations used forecasts from the North Carolina Assistant State Budget Officer, North Carolina Office of State Budget and Management.
- Forecasts for North Carolina were produced under contract by Global Insight.
- We examine trust fund balances overtime given the baseline economic scenario and three alternatives.

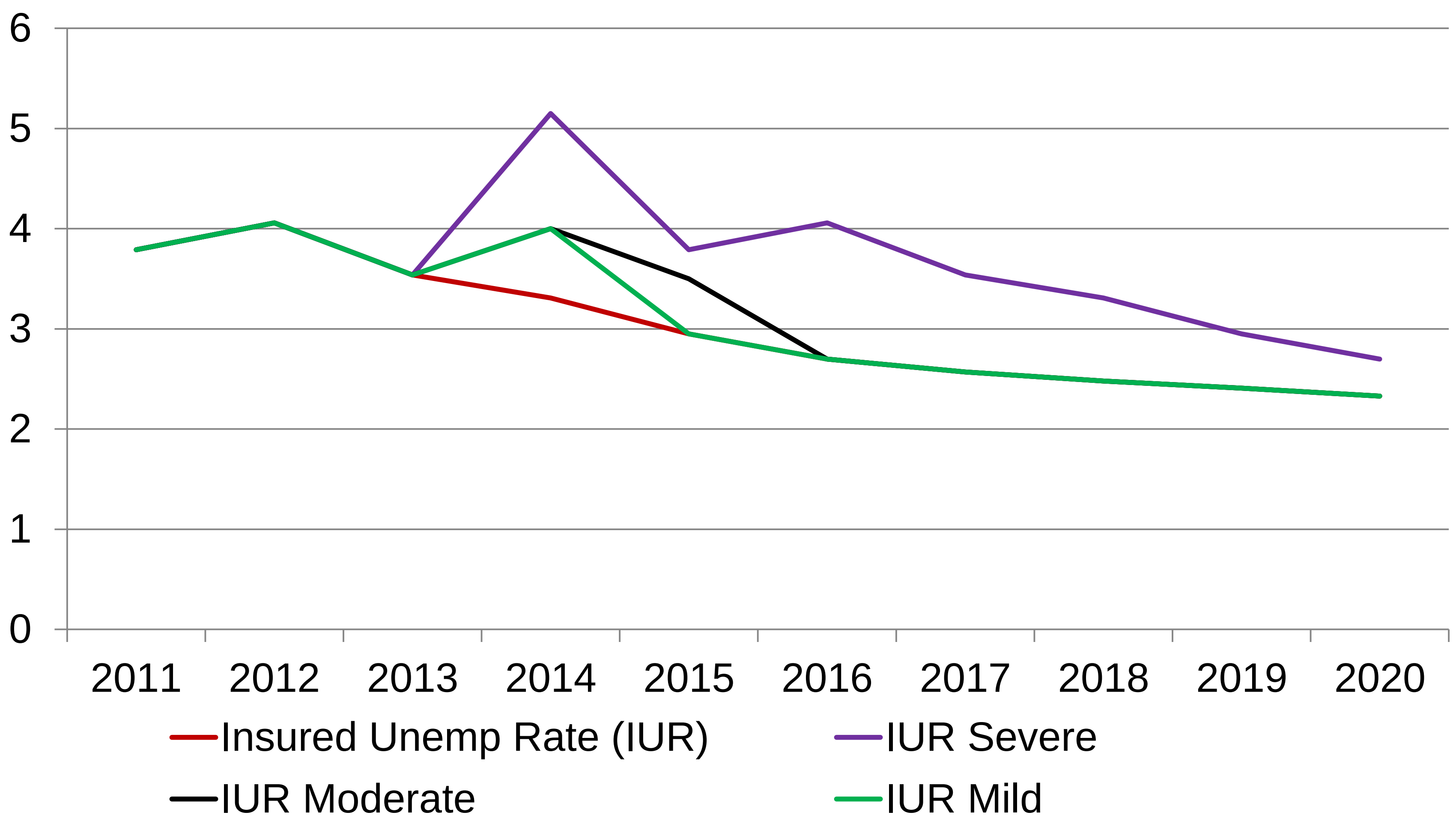
Economic Scenarios

Year	LF Growth	Wage Growth	TUR Baseline	IUR Baseline	IUR Severe	IUR Moderate	IUR Mild
2011	0.83	0.91	10.51	3.79	3.79	3.79	3.79
2012	1.03	0.92	10.14	4.06	4.06	4.06	4.06
2013	1.05	0.89	9.32	3.54	3.54	3.54	3.54
2014	1.21	0.88	8.70	3.31	5.15	4.00	4.00
2015	1.22	0.87	7.76	2.95	3.79	3.50	2.95
2016	1.15	0.87	7.11	2.70	4.06	2.70	2.70
2017	1.11	0.86	6.75	2.57	3.54	2.57	2.57
2018	1.09	0.85	6.53	2.48	3.31	2.48	2.48
2019	0.91	0.84	6.35	2.41	2.95	2.41	2.41
2020	0.93	0.84	6.14	2.33	2.70	2.33	2.33

Baseline Economic Projection



Alternate Economic Scenarios



Tax Changes Examined

- New employer rate: 1.2 to 3.7 in steps of 0.3
- Min rate for pos balance employers: 0.0 to 1.1 in steps of 0.1
- Max rate for neg balance employers: 5.5 to 10.0 in steps of 0.5
- Min for negative balance and Max for pos balance:

  (2.7, 2.9), (2.8, 3.0), (2.9 and 3.1)
- Taxable wage base:

  from 40 to 60 percent of AWW*52 in steps of 2.5 pp
- Upward shift of tax schedule: up by 0.2 to 1.0 in steps of 0.1 pp
- Tax schedules to formulas: on the interval [-3.5, 3.5]
- Solvency taxes: 0.1 to 2.0 pp and targets of $1 b and $2 b
- Bond issuance: to pay off debt balance in 2012

Benefit Changes & Economic Scenarios

Benefit Changes Examined

- Maximum potential duration of benefits: 26 to 20 in steps of -1 week
- Max weekly benefit amount (WBA): 0.67*AWW to 0.60*AWW in increments of -0.01 percentage points
- Waiting weeks: from 1 week to 2 weeks
- Replacement rate: from (1/26)(HQW) to (1/52)(HQW1+HQW2)

Economic Scenarios Examined

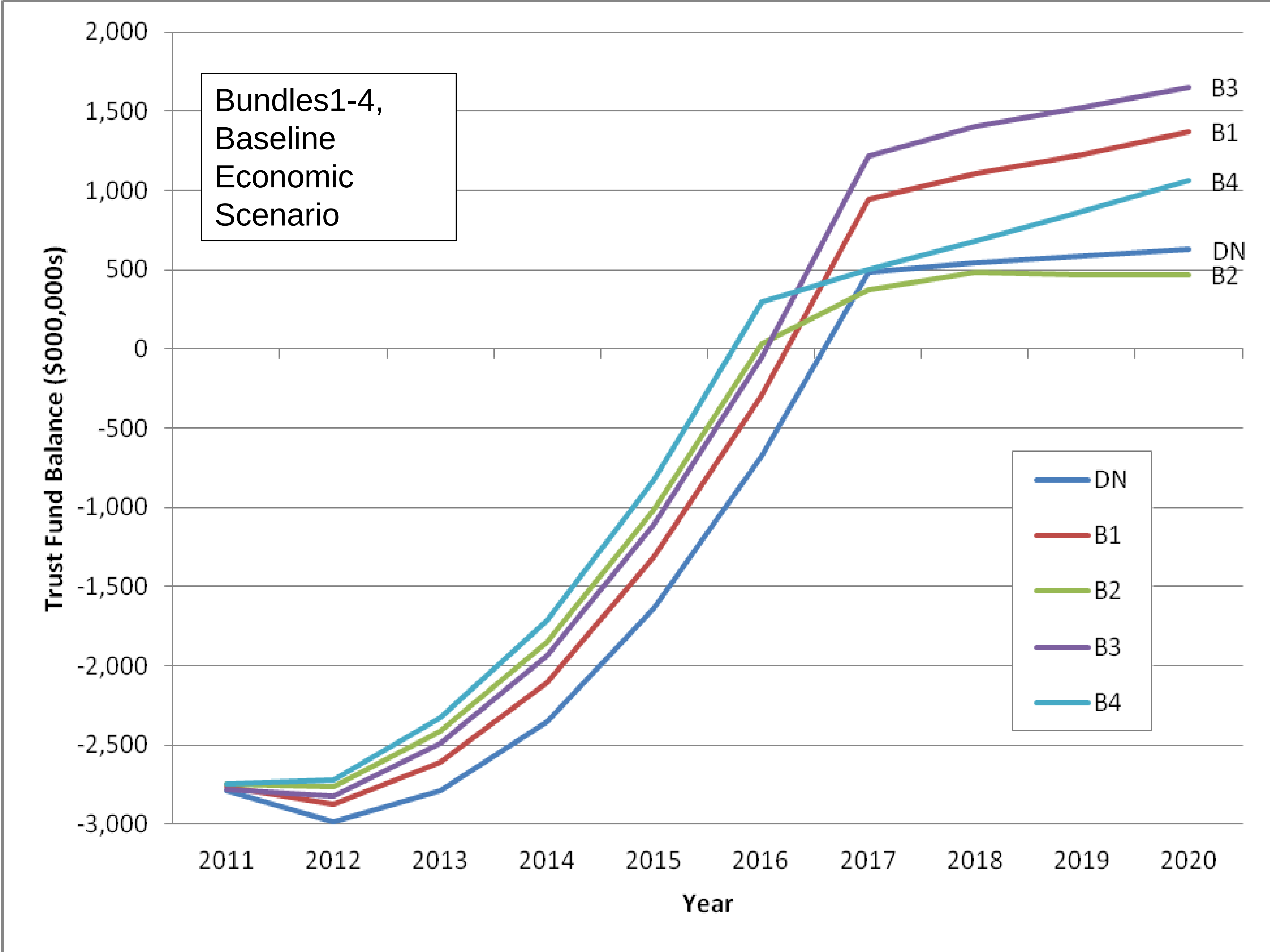
- Baseline: based on Global Insight forecast
- Severe: in 2014 a 2008 style recession begins again
- Moderate: 2014 , 2015 unemployment above Global Insight forecast
- Mild: 2014 unemployment above Global Insight forecast

Simulation Results

- Preliminary simulations for changing each feature were first done separately.
- The following slides show bundles of changes made to the tax and benefit systems and summaries of results.
- Results are also shown graphically under the baseline economic scenario.
- Selected bundles are graphed assuming the severe economic scenario.

Bundles Of Changes Compared to Do Nothing Scenario: Basic Changes, Bundles 1 to 4

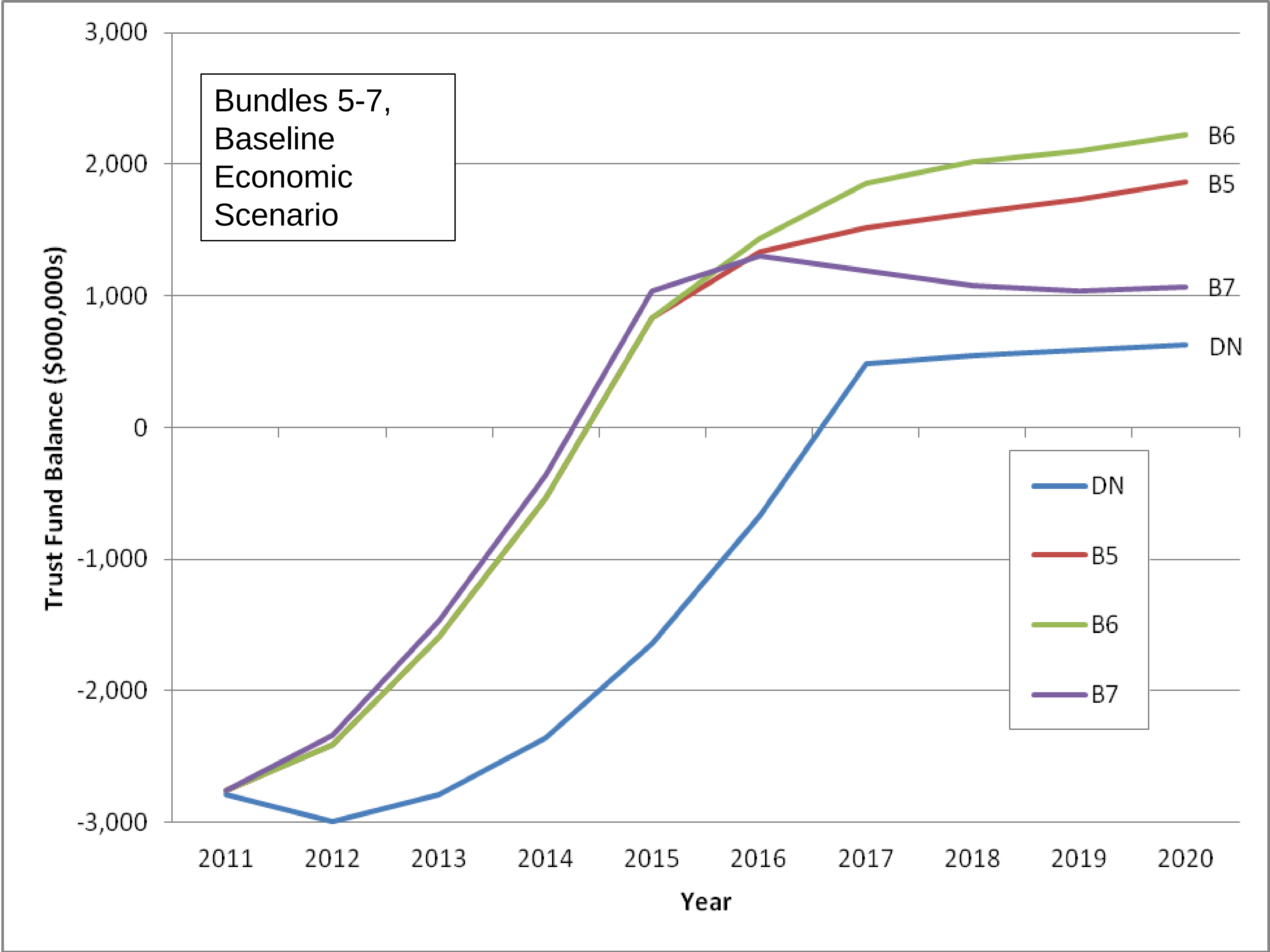
	DN	B1	B2	B3	B4
New employer rate	1.2	1.8	1.8	2.7	2.7
Min rate for pos bal employers	0	0.1	0.1	0.1	0.1
Max rate for neg bal employers	5.7	6.0	5.8	6.0	7.0
Min rate for neg bal employers	2.9		3.0		
Max rate for pos bal employers	2.7		2.8		
Taxable wage base	50%				
Upward shift of tax schedule	No		0.1		
Tax schedules to formulas	No				
Solvency taxes	No				
Bond issuance	No				
Maximum duration of benefits	26			25	
Maximum WBA % of AWW	66.7	60	60	60	60
Waiting weeks	1				
Replacement rate	HQ		2HQ	2HQ	2HQ
Economic scenarios	Base				
Year debt paid down to zero	2017	2017	2016	2017	2016
Reserve balance in 2020 ($)	$625m	$1.4b	$469m	$1.7b	$1.0b
Reserve 2020 diff from DN	$0	$746m	-$156m	$1.0b	$435m
Meets DOL Targets	No	No	No	No	No



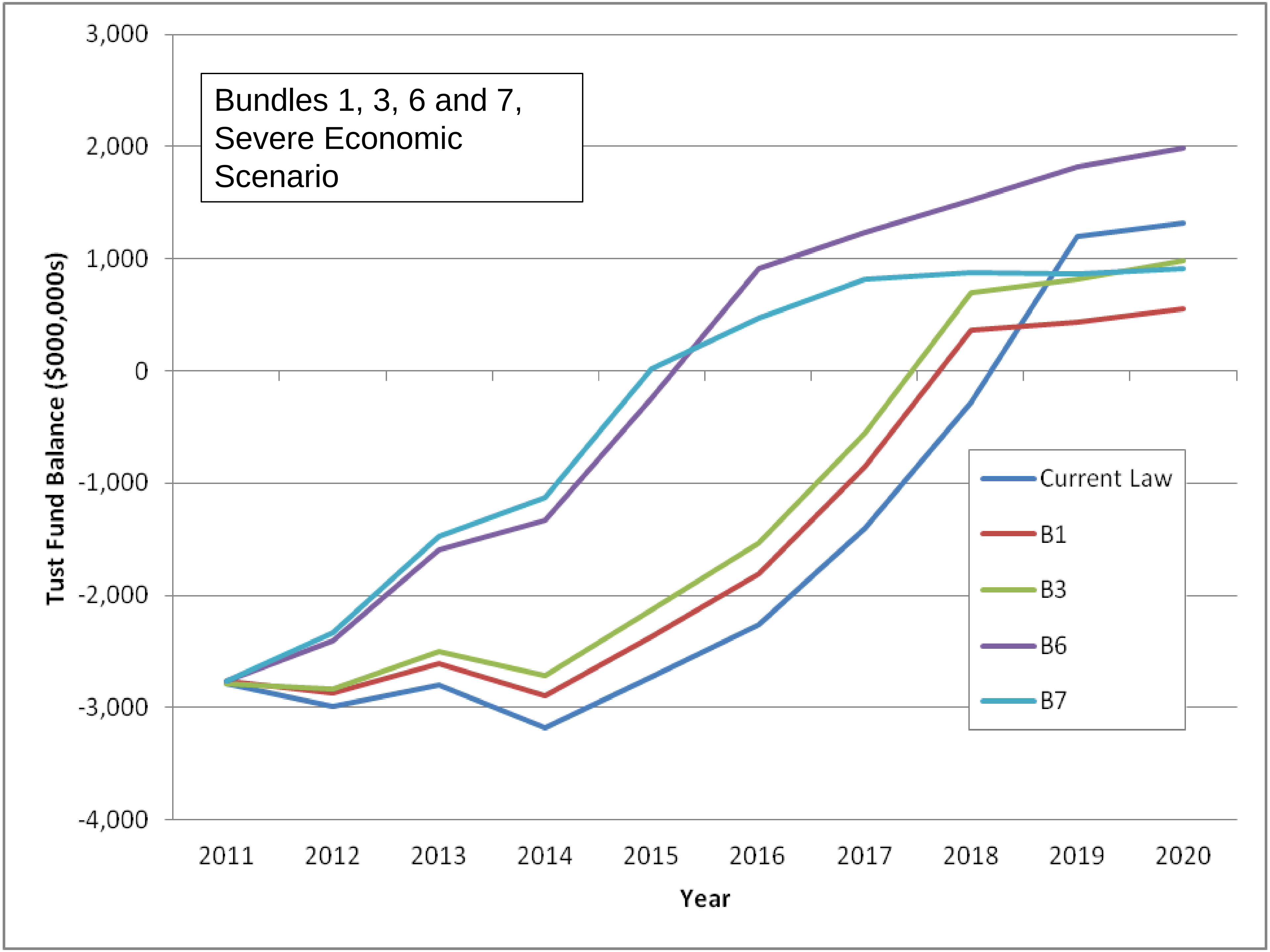
Bundles1-4,
Baseline
Economic
Scenario
Trust Fund Balance ($000,000s)
2,000
1,500
1,000
500
0
-500
-1,000
-1,500
-2,000
-2,500
-3,000
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
B3
B1
B4
DN
B2
DN
B1
B2
B3
B4

Bundles Of Changes Compared to Do Nothing Scenario: Basic Changes plus Solvency Taxes, Bundles 5 to 7

	DN	B5	B6	B7
New employer rate	1.2	1.8	1.8	1.8
Min rate for pos bal employers	0	0.1	0.1	0.1
Max rate for neg bal employers	5.7	6.0	6.0	6.0
Min rate for neg bal employers	2.9			
Max rate for pos bal employers	2.7			
Taxable wage base	50%			
Upward shift of tax schedule	No			
Tax schedules to formulas	No			
Solvency taxes	No			
Bond issuance	No			
Maximum duration of benefits	26			
Maximum WBA % of AWW	66.7	60	60	60
Waiting weeks	1			
Replacement rate	HQ			2HQ
Economic scenarios	Base			
Year debt paid down to zero	2017	2015	2015	2015
Reserve balance in 2020 ($)	$625m	$1.8b	$2.2b	$1.0b
Reserve 2020 diff from DN	$0	$1.2b	-$1.6b	$445m
Meets DOL Targets	No	No	No	No



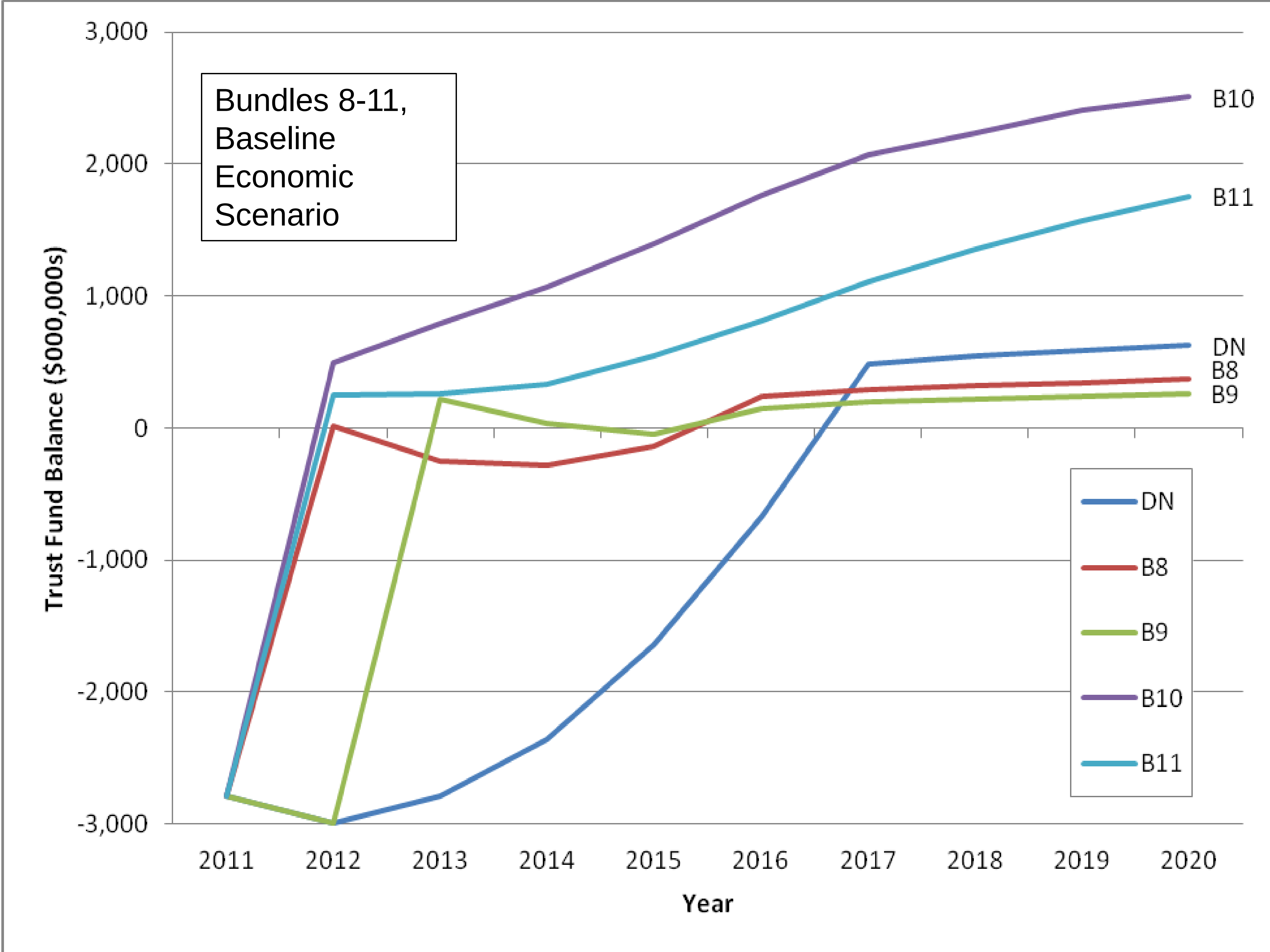
Bundles 5-7, Baseline Economic Scenario
3,000
2,000
1,000
0
-1,000
-2,000
-3,000
Trust Fund Balance ($000,000s)
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
B6
B5
B7
DN
DN
B5
B6
B7



Bundles 1, 3, 6 and 7, Severe Economic Scenario
Tust Fund Balance ($000,000s)
3,000
2,000
1,000
0
-1,000
-2,000
-3,000
-4,000
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
Current Law
B1
B3
B6
B7

Bundles Of Changes Compared to Do Nothing Scenario: No Changes except Bonding & Solvency Taxes, Bundles 8-11

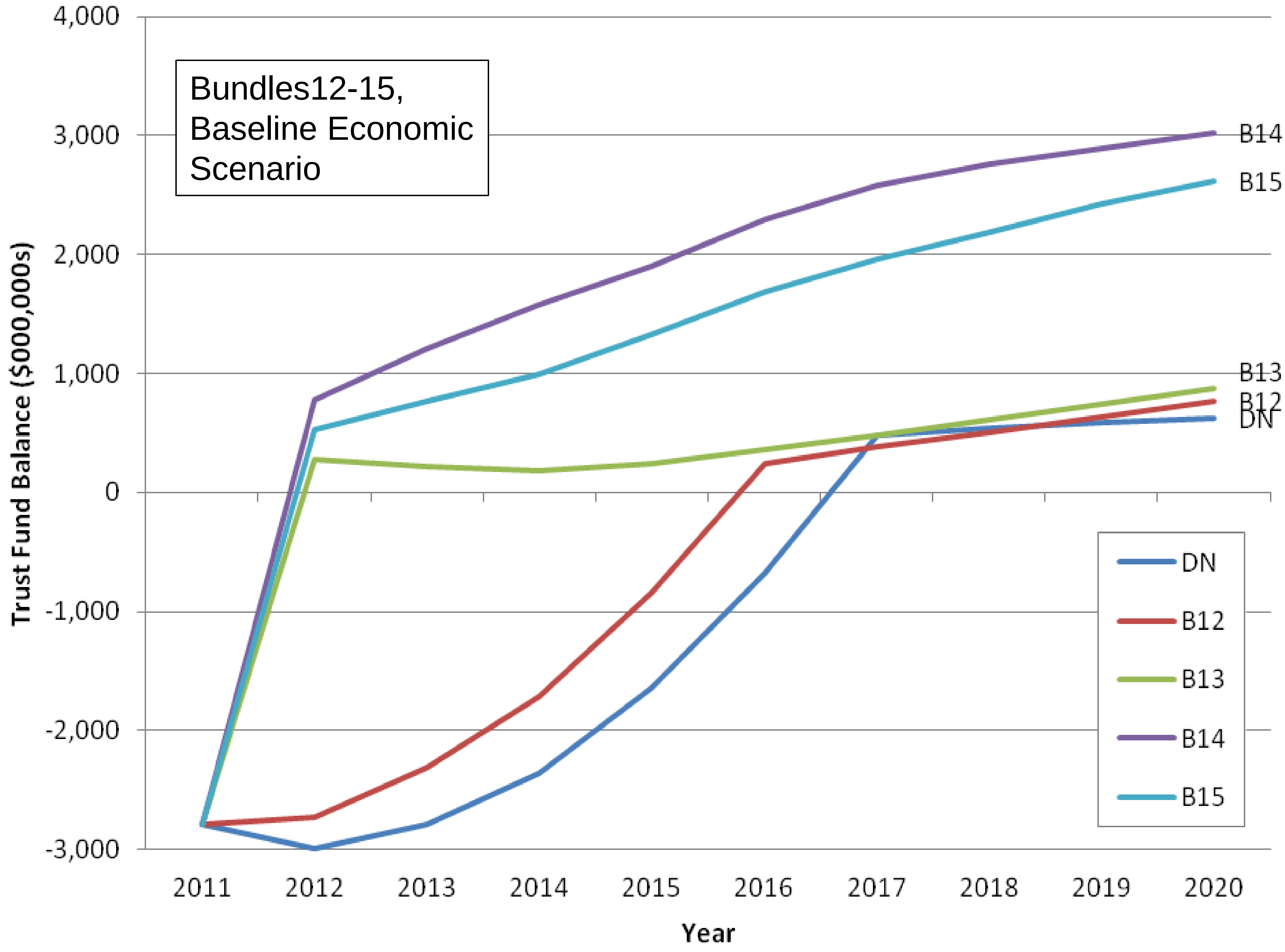
	DN	B8	B9	B10	B11
New employer rate	1.2				
Min rate for pos bal employers	0				
Max rate for neg bal employers	5.7				
Min rate for neg bal employers	2.9				
Max rate for pos bal employers	2.7				
Taxable wage base	50%				
Upward shift of tax schedule	No				
Tax schedules to formulas	No				
Solvency taxes	No			ST1 (1.0)	ST2 (0.5)
Bond issuance	No	2012	2013	2012	2012
Maximum duration of benefits	26				
Maximum WBA % of AWW	66.7				
Waiting weeks	1				
Replacement rate	HQ				
Economic scenarios	Base				
Year debt paid down to zero	2017	2016	2016	2016	2016
Reserve balance in 2020 ($)	$625m	$372m	$259m	$2.5b	$1.8b
Reserve 2020 diff from DN	$0	-$253m	-$336m	$1.9b	$1.1b
Meets DOL Targets	No	No	No	Yes	No



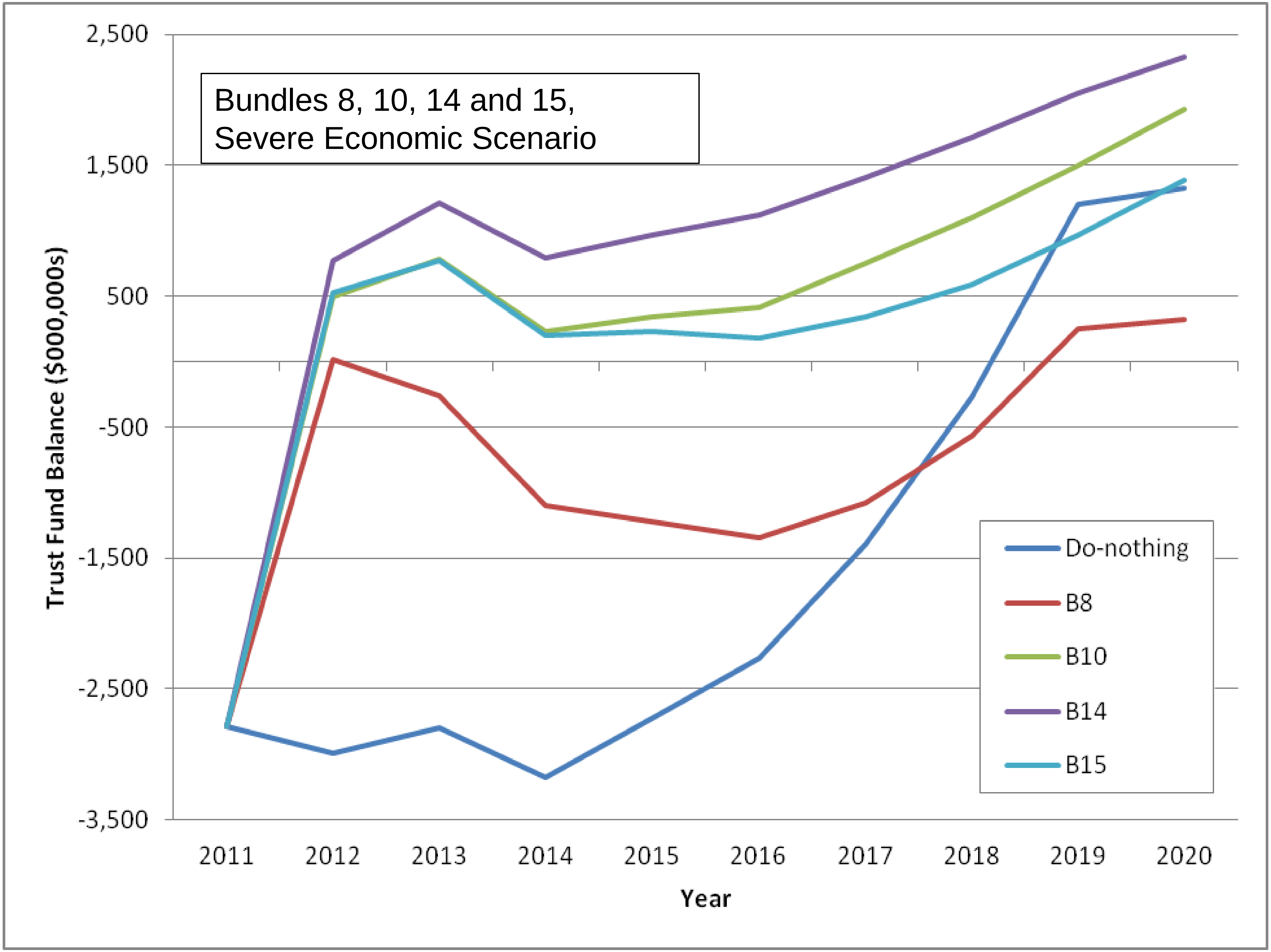
Bundles 8-11,
Baseline
Economic
Scenario
Trust Fund Balance ($000,000s)
3,000
2,000
1,000
0
-1,000
-2,000
-3,000
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
B10
B11
DN
B8
B9
DN
B8
B9
B10
B11

Bundles Of Changes Compared to Do Nothing Scenario: Bonding & Solvency Taxes with 1992 System, Bundles 12-15

	DN	B12	B13	B14	B15
New employer rate	1.2	2.25	2.25	2.25	2.25
Min rate for pos bal employers	0	.01	.01	.01	.01
Max rate for neg bal employers	5.7				
Min rate for neg bal employers	2.9				
Max rate for pos bal employers	2.7				
Taxable wage base	50%	60%	60%	60%	60%
Upward shift of tax schedule	No				
Tax schedules to formulas	No				
Solvency taxes	No			ST1	ST2
Bond issuance	No		2012	2012	2012
Maximum duration of benefits	26				
Maximum WBA % of AWW	66.7				
Waiting weeks	1				
Replacement rate	HQ	2HQ	2HQ	2HQ	2HQ
Economic scenarios	Base				
Year debt paid down to zero	2017	2016	2012	2012	2012
Reserve balance in 2020 ($)	$625m	$767m	$880m	$3.0b	$2.6b
Reserve 2020 diff from DN	$0	$142m	$225m	$2.4b	$2.0b
Meets DOL Targets	No	No	No	Yes	Yes



Bundles12-15,
Baseline Economic
Scenario
Trust Fund Balance ($000,000s)
4,000
3,000
2,000
1,000
0
-1,000
-2,000
-3,000
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
B14
B15
B13
B12
DN
DN
B12
B13
B14
B15



Bundles 8, 10, 14 and 15,
Severe Economic Scenario
2,500
1,500
500
-500
-1,500
-2,500
-3,500
Trust Fund Balance ($000,000s)
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Year
Do-nothing
B8
B10
B14
B15

Summary

- Three bundles achieve the USDOL financing targets for reserve adequacy:
  - B10: Solvency tax (0.1 to 1.0) and Bonding
  - B14: 1992 system ST (0.1 to 1.0) & Bonding
  - B15: 1992 system ST (0.1 to 0.5) & Bonding
- The strongest set of changes is:
  - (1/26)*HQ to (1/52)*2HQ
  - Maximum WBA from 67% to 60%
  - Solvency tax targeting HCM = 1.0