Preliminary Results of Actuarial Valuation of JKK & JKM branches (BPJS-TK) as of 31 December 2024

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Date: Wednesday / 09 / March / 2026

Agenda

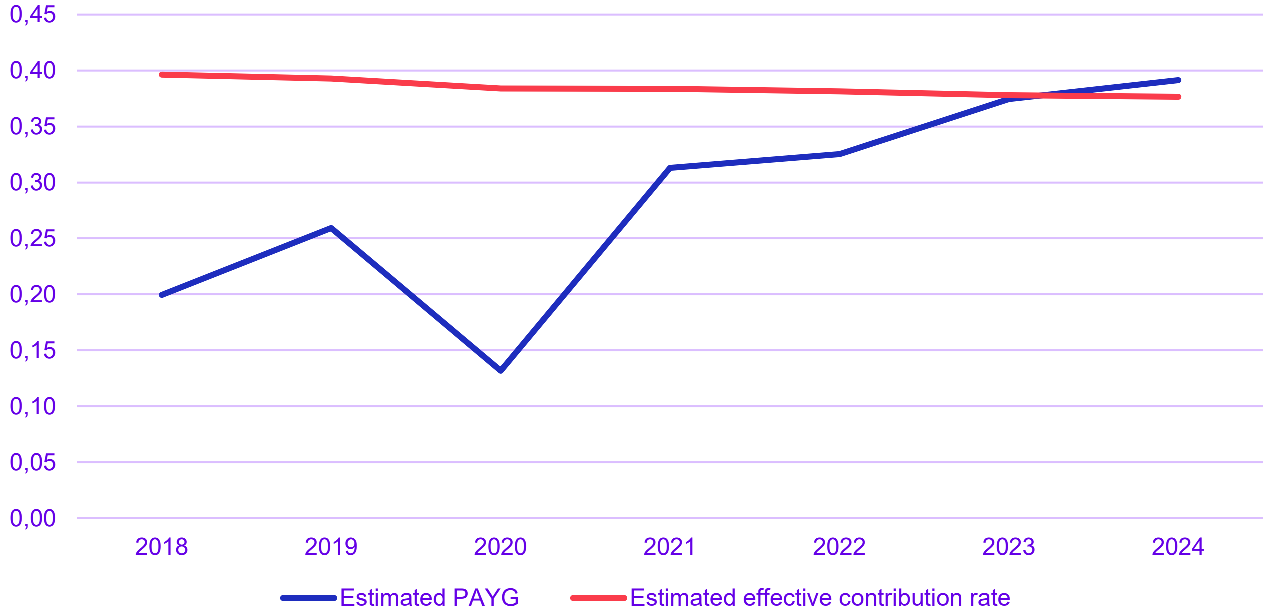
- Experience Analysis
- Demographic and Economic Projections of Indonesia
- JKK & JKM's Specific Data and Assumptions
- Results of the Base Scenario
- Next Steps

International Labour Organization

Experience Analysis

Experience Analysis
JKK Branch

- Recent experience shows that the effective contribution rate is not sufficient to support the cost of the branch on a pay-as-you-go basis



Experience Analysis
JKK Branch

- Deeper analysis of the JKK cost shows that while there is an increase in benefit payment, there is also financial pressure related to the constitution of technical reserves

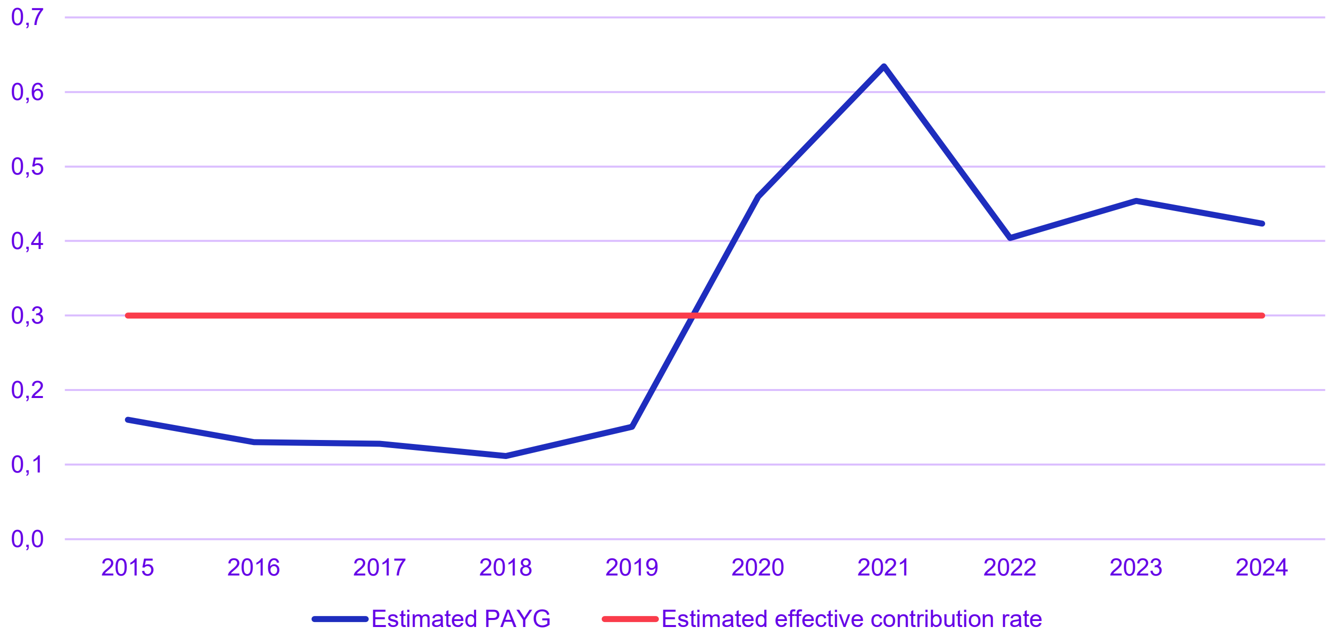
31 December	2015	2016	2017	2018	2019	2020	2021[1]	2022	2023	2024
Income										
Contributions from wages	3 505 453	4 108 402	4 649 778	5 321 679	5 926 428	3 790 755	5 233 168	6 378 518	7 257 956	8 003 555
Other contributions[2]	4 140	2 839	2 639	1 595	1 764	113	9	21	42	614
Investment Income	243 971	2 011 690	1 859 815	1 626 116	2 688 747	2 600 853	2 627 381	3 327 015	4 069 093	3 900 225
Other income	3 123	40 961	4 562	13 628	3 484	1 439	820	6 143	25 581	36 709
Total income	**3 756 687**	**6 163 892**	**6 516 794**	**6 963 018**	**8 620 423**	**6 393 160**	**7 861 378**	**9 711 697**	**11 352 672**	**11 941 103**
Expenditures										
Benefit expenditures	661 174	832 775	971 953	1 226 809	1 576 697	1 556 943	1 790 006	2 391 237	3 041 603	3 501 476
Reserve for future liabilities	777 570	306 596	354 841	210 810	540 557	-972 507	221 777	283 568	622 865	794 565
Administrative expenditures	349 349	236 333	215 139	186 634	291 339	226 369	533 246	611 863	783 585	877 485
Investment expenditures	175 808	199 368	257 121	11 451	21 322	8 168	15 382	9 495	15 894	3 065
Variation in receivables	-4 545	-1 969	1 408	22 148	810	-18 082	3 056	10 067	-24 836	8 688
Other expenditures	414	330	309	195	233	206	194	270	300	270
Total expenditures	**1 959 770**	**1 573 433**	**1 800 771**	**1 658 047**	**2 430 958**	**801 097**	**2 563 661**	**3 306 500**	**4 439 411**	**5 185 549**
Net surplus	**1 796 917**	**4 590 459**	**4 716 023**	**5 304 971**	**6 189 465**	**5 592 063**	**5 297 717**	**6 405 197**	**6 913 261**	**6 755 554**

Experience Analysis JKK Branch

- Detailed analysis of the claims to the JKK branch is made in Chapter 2 of the report.
- The analysis are based on the individual claims data provided by BPJS-TK
- The demographic experience of the claims is used to determine the number of unique claims to the branch (i.e. incidence) and the individual financial information for each claim is used to derive the benefit projection (i.e. severity)

Experience Analysis JKM Branch

- Recent experience shows that the effective contribution rate is not sufficient to support the cost of the branch on a pay-as-you-go basis (this is effective for a longer time than in the JKK branch)



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Experience Analysis JKM Branch

- Deeper analysis of the JKM cost shows that while there is an increase in benefit payment, there is also financial pressure related to the constitution of technical reserves

31 December	2015	2016	2017	2018	2019	2020	2021[1]	2022	2023	2024
Income										
Contributions from wages	1 590 550	1 829 140	2 121 361	2 493 967	2 814 030	1 824 749	2 456 729	3 048 283	3 556 452	3 974 561
Other contributions[2]	2 070	1 290	1 056	638	829	53	4	10	21	314
Investment Income	66 473	670 878	600 130	575 954	1 000 245	1 009 086	900 858	1 022 942	1 152 945	1 062 660
Other income	1 887	19 828	2 143	5 302	2 141	445	456	3 710	17 485	19 655
Total income	**1 660 980**	**2 521 136**	**2 724 690**	**3 075 861**	**3 817 245**	**2 834 333**	**3 358 047**	**4 074 945**	**4 726 903**	**5 057 190**
Expenditures										
Benefit expenditures	463 631	594 130	612 140	708 023	862 727	1 346 736	3 164 041	2 704 951	3 210 437	3 775 412
Reserve for future liabilities	166 502	30 915	107 551	119 863	401 160	1 343 605	1 759 620	1 091 295	1 759 966	1 373 462
Administrative expenditures	157 145	105 610	98 213	87 650	137 935	108 902	263 304	306 363	400 966	454 575
Investment expenditures	54 117	65 205	86 578	4 285	10 570	3 584	6 938	3 714	12 568	918
Variation in receivables	7 309	-2 466	-51	7 627	3 649	-7 442	478	823	-3 912	4 979
Other expenditures	267	169	169	121	131	124	116	167	194	192
Total expenditures	**848 971**	**793 563**	**904 600**	**927 569**	**1 416 172**	**2 795 509**	**5 194 497**	**4 107 313**	**5 380 219**	**5 609 538**
Net surplus	**812 009**	**1 727 573**	**1 820 090**	**2 148 292**	**2 401 073**	**38 824**	**-1 836 450**	**-32 368**	**-653 316**	**-552 348**

Experience Analysis
JKM Branch

- Individual claims to the JKM were provided to the ILO for experience analysis.
- A comparison of real to expected death was performed for the branch.

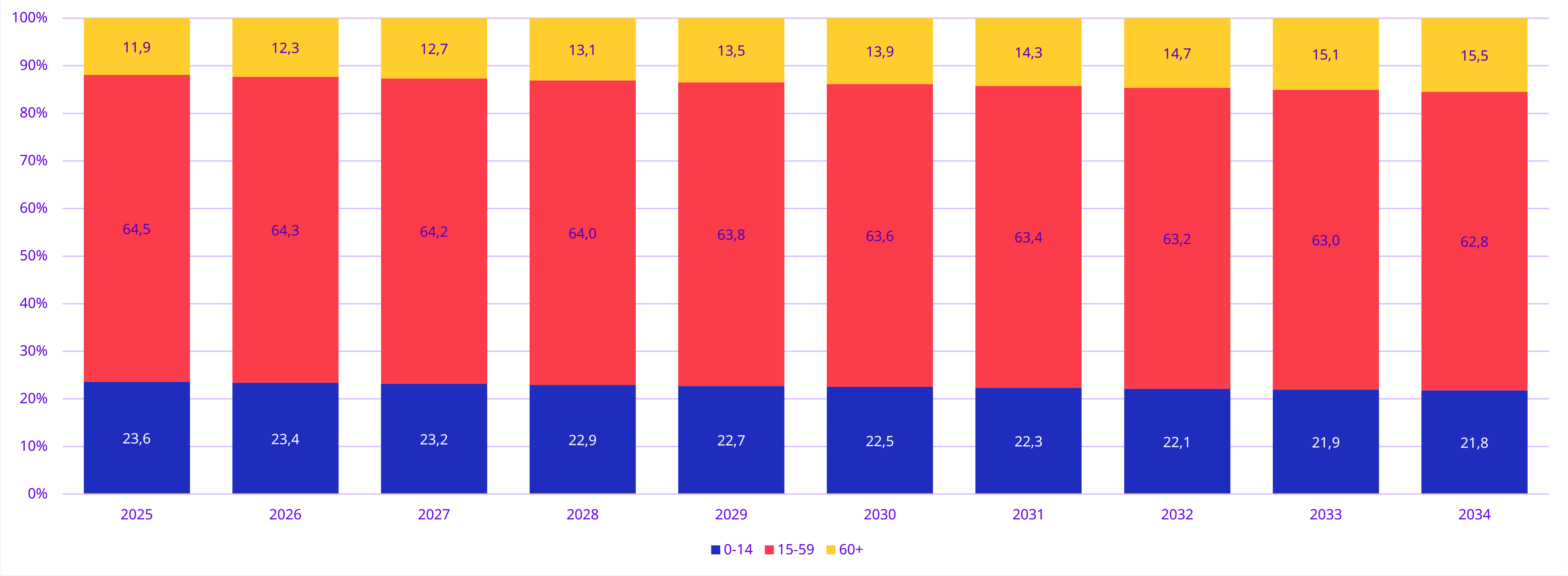
Year	Male	Female
2018	43.9	32.9
2019	50.8	43.1
2020	55.8	47.0
2021	121.0	99.2
2022	84.7	73.3
2023	75.8	74.8
2024	71.6	81.4

Demographic and Economic Projections of Indonesia

Demographic and Economic Projections of Indonesia Data and Assumptions

- Demographic projections rely on BPS-Statistics for initial population and assumptions, and relies on UN World Population Prospects projection afterward.
- For economic projections, they use BPS-Statistics as a starting point and follows the assumptions of projections made by the IMF (World Economic Outlook), the World Bank, the Economist Intelligence Unit and specific assumptions developed by the actuaries.
- Data and assumptions are detailed in chapter 3 of the report
- Projection period retained is 10 years, to match the projection period of JKK and JKM branches

Demographic and Economic Projections of Indonesia
Demographic Projections



Demographic and Economic Projections of Indonesia
Economic Projections

	2025	2026	2028	2030	2032	2034
Working-age population	217 272 920	219 756 539	224 585 217	229 143 700	233 394 036	237 369 124
Labour-force participation rate (%)	68.3	68.4	68.6	68.7	68.8	69.0
Labour-force population	148 467 954	150 341 224	153 971 999	157 430 618	160 690 728	163 729 758
Employed population	143 420 043	145 304 793	148 890 923	152 235 407	155 387 934	158 326 676
Unemployed population	5 047 910	5 036 431	5 081 076	5 195 210	5 302 794	5 403 082
Unemployment rate (%)	3.4	3.4	3.3	3.3	3.3	3.3

JKK & JKM's Specific Data and assumptions

JKK & JKM's Specific Data and Assumptions

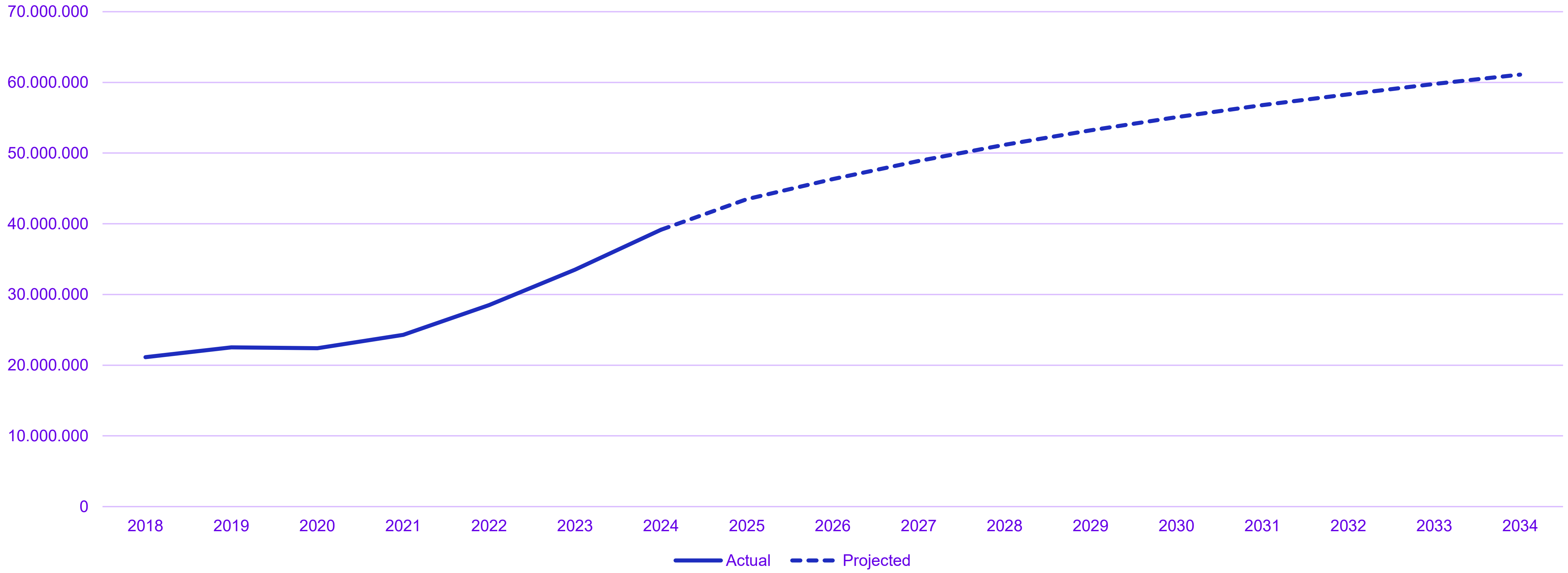
- Data and assumptions are based on the individual contributors' data, individual claims' data and the total number of contributors by sector provided by BPJS-TK to the actuarial team of the ILO.
- Automatic indexation of nominal parameters of the scheme is presumed in the base scenario
- Technical reserves fluctuation (IBNR and other reserves) are modelled based on past trend and are explicitly separated in the financial projections of both branches.
- Details of data and assumption specific for each branches are available in chapter 4 of the report.

Results of the Base Scenario

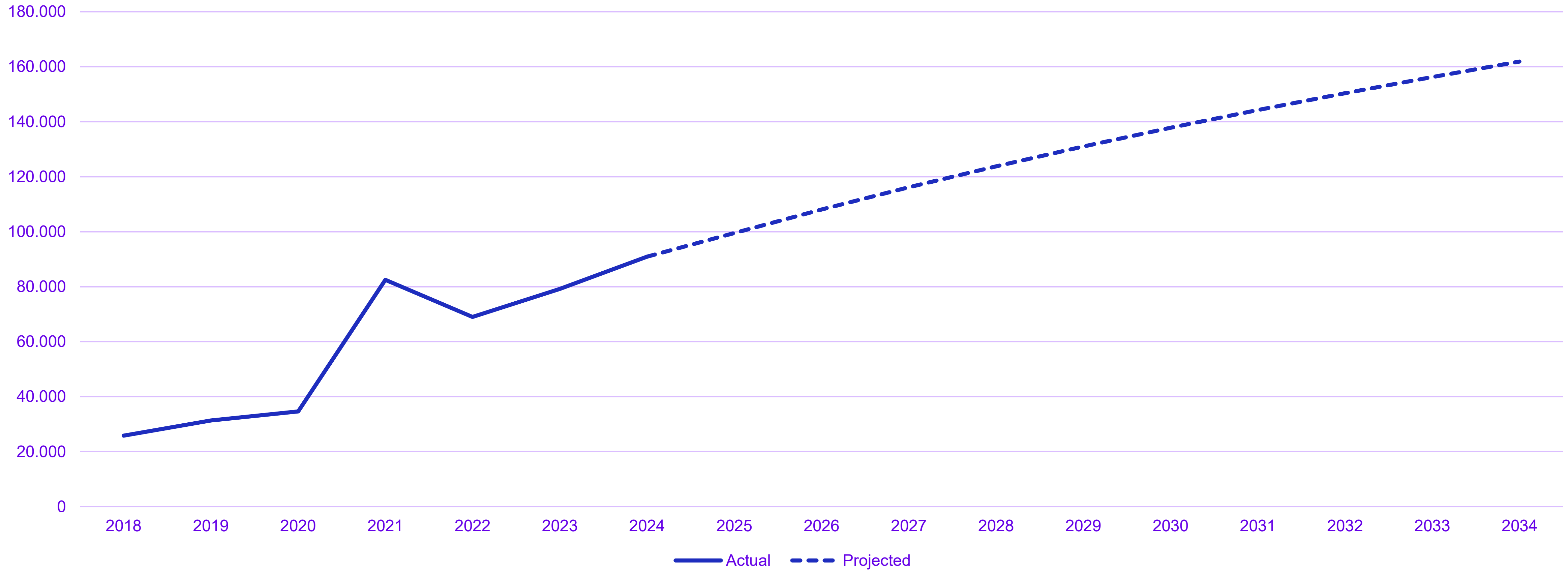
Results of the Base Scenario Methodology

- Projections are performed for a 10-year period, which is appropriate for short-term benefit branches such as JKK and JKM.
- A specific projection model was developed for both branches
- Contribution revenues are projected over the period. For JKK, the projection is specific by contribution rate level.
- Benefit expenditures are projected by forecasting the number of unique claims for each branch and then determining the type of benefits paid for each claim.
- A calibration of the demographic and financial projection was made on the individual claims’ data and the financial statements of BPJS-TK

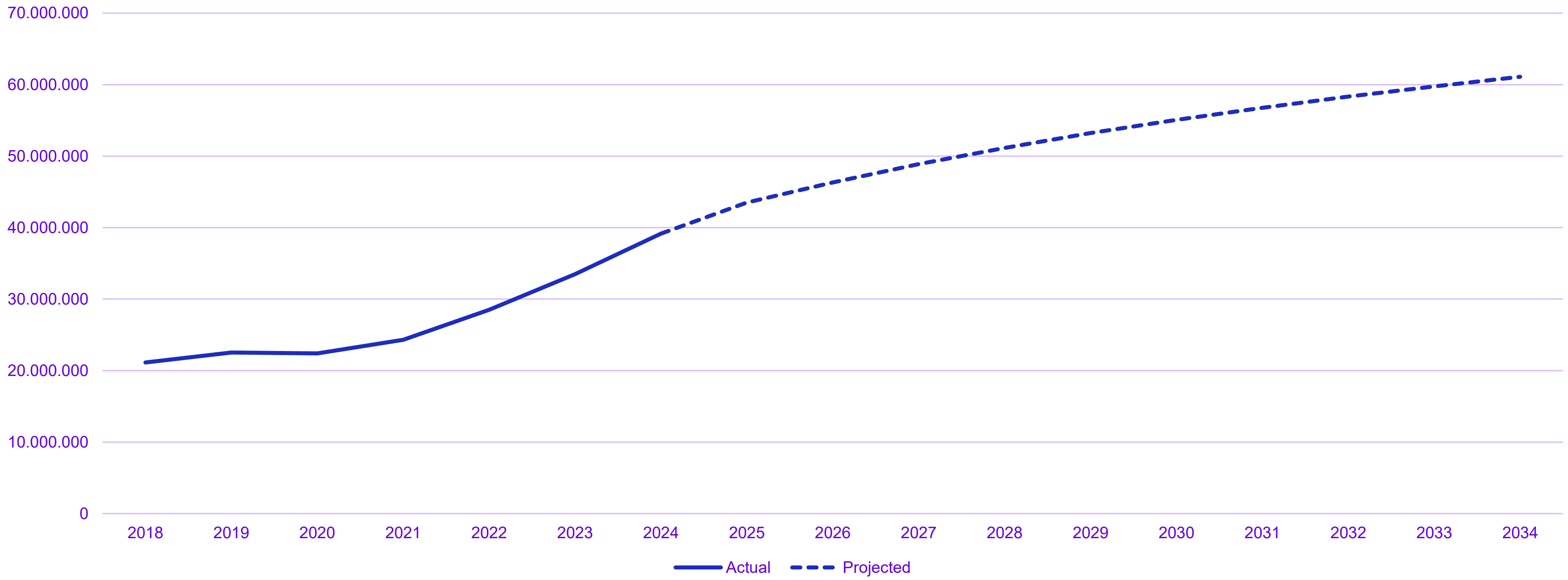
Results of the Base Scenario Demographic Projections – Contributors – JKM



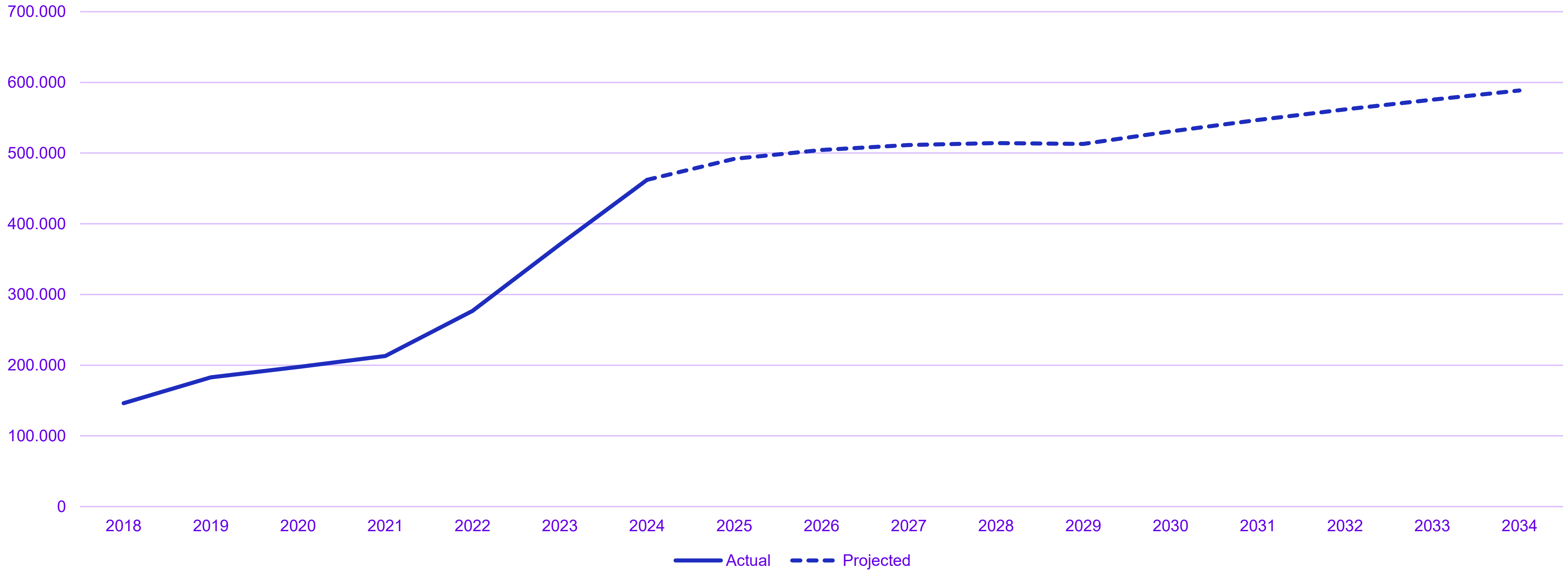
Results of the Base Scenario
Demographic Projections – Death Claims – JKM



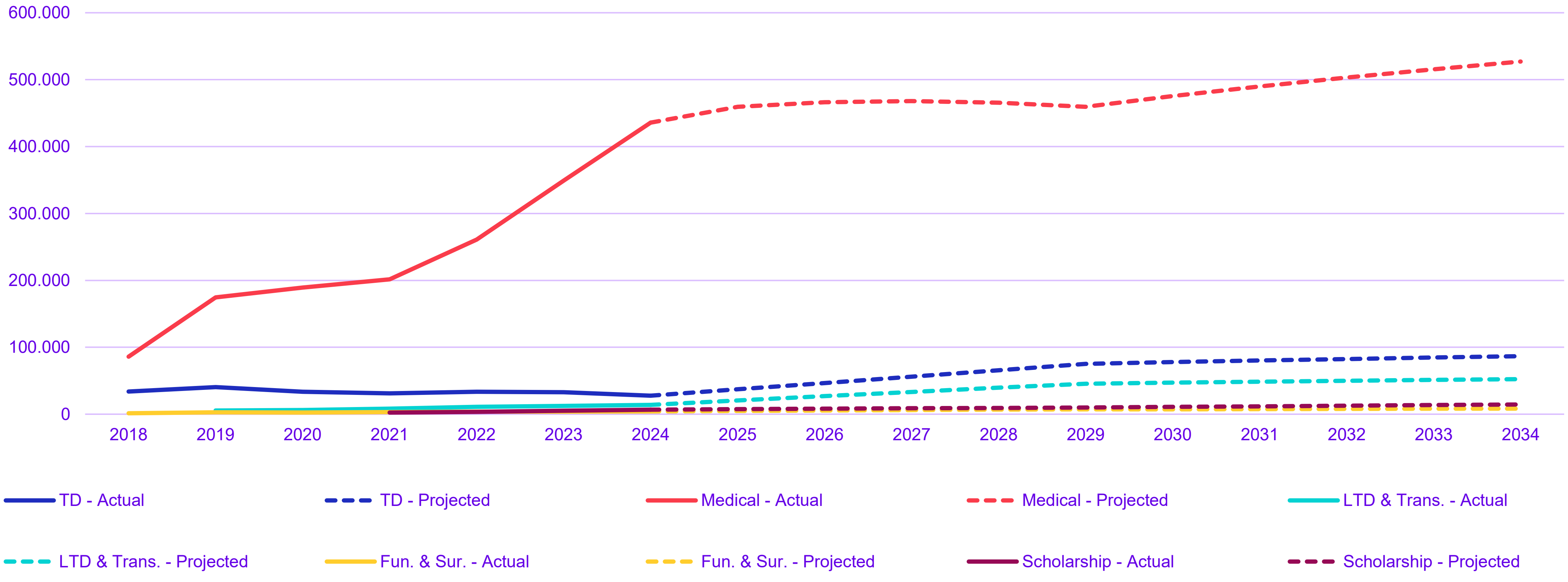
Results of the Base Scenario
Demographic Projections – Contributors – JKK



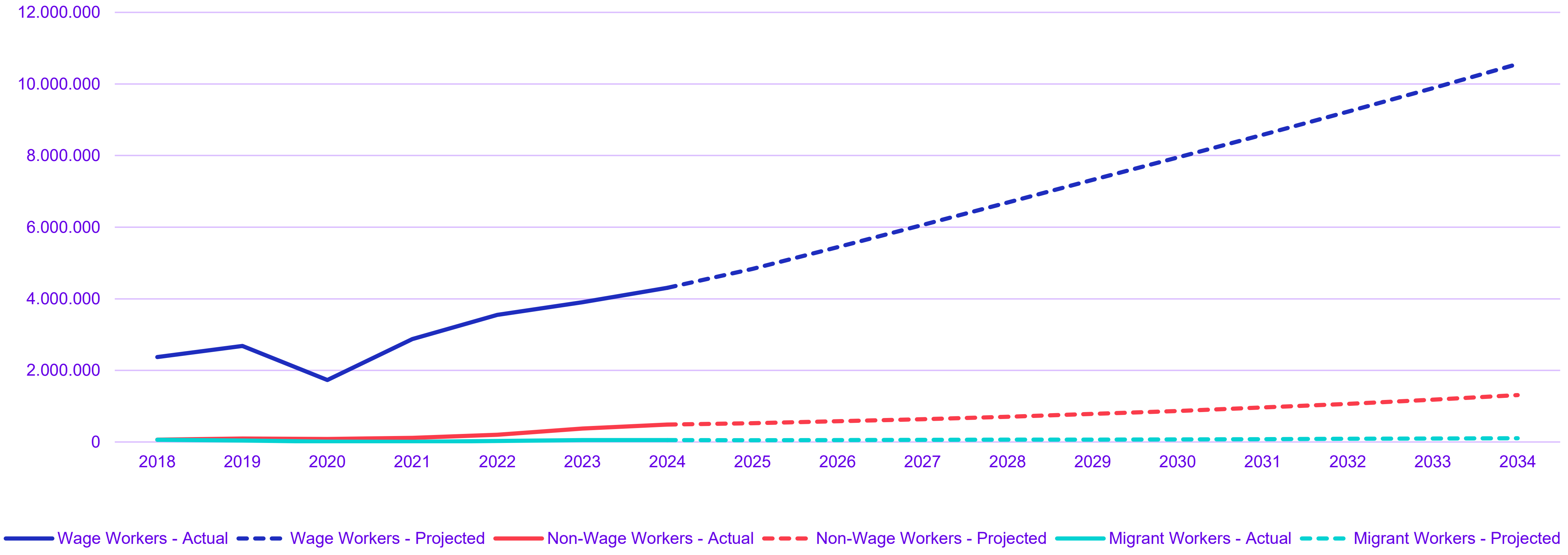
Results of the Base Scenario
Demographic Projections – Unique Claimants – JKK



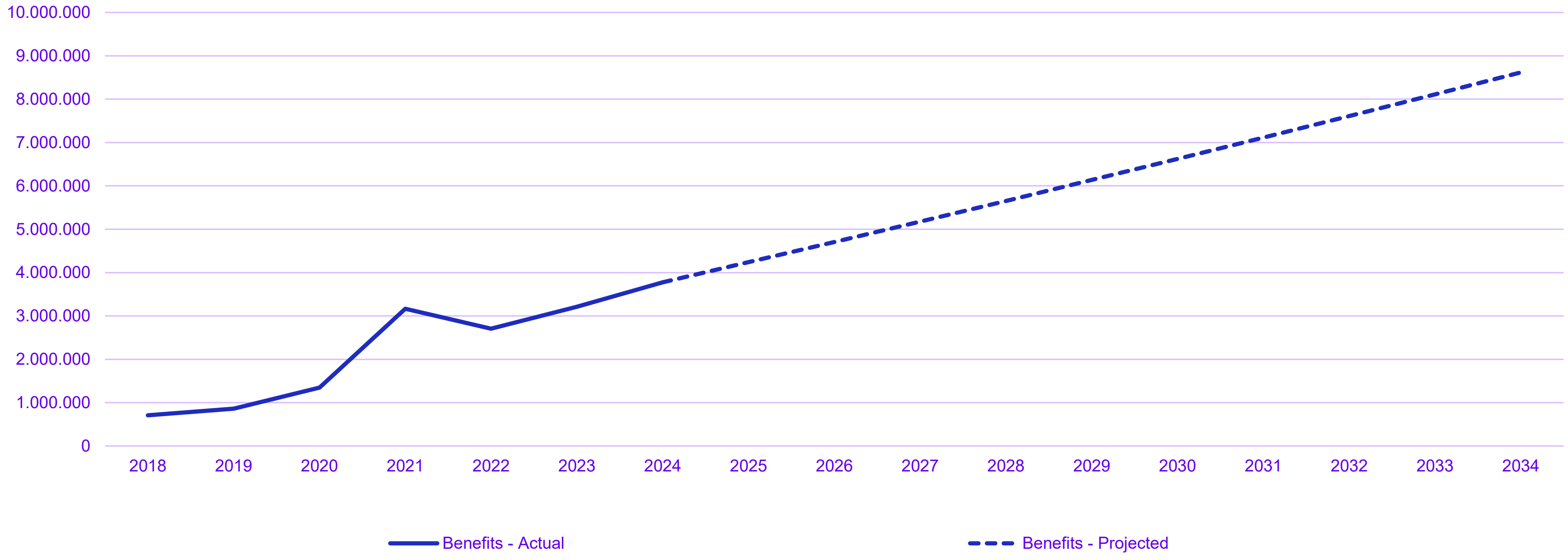
Results of the Base Scenario Demographic Projections – Number of beneficiaries – JKK



Results of the Base Scenario
Financial Projections – Contributions – JKM (in IDR millions)



Results of the Base Scenario
Financial Projections – Benefits – JKM (in IDR millions)



Results of the Base Scenario
Financial Projections – JKM (in IDR billions)

Year	Reserve BOY	Revenues: Contrib.	Revenues: Invest.	Revenues: Total	Expenses: Benefits	Expenses: Change in T.R.	Expenses: Redist. to JKP	Expenses: Admin.	Expenses: Total	Reserve EOY
2025	**9 574.4**	5 405.5	872.1	**6 277.7**	4 240.3	970.4	80.5	585.8	**5 877.0**	**9 975.1**
2026	**9 975.1**	6 074.2	983.6	**7 057.7**	4 705.1	999.3	0.0	668.2	**6 372.5**	**10 660.2**
2027	**10 660.2**	6 758.2	1 115.9	**7 874.1**	5 174.5	1 009.1	0.0	743.4	**6 927.0**	**11 607.4**
2028	**11 607.4**	7 457.5	1 270.5	**8 728.0**	5 651.0	1 024.6	0.0	820.3	**7 495.9**	**12 839.6**
2029	**12 839.6**	8 170.7	1 424.4	**9 595.1**	6 136.6	1 044.2	0.0	898.8	**8 079.6**	**14 355.1**
2030	**14 355.1**	8 888.1	1 571.3	**10 459.4**	6 622.7	1 044.9	0.0	977.7	**8 645.3**	**16 169.2**
2031	**16 169.2**	9 623.2	1 735.1	**11 358.4**	7 113.7	1 055.7	0.0	1 058.6	**9 227.9**	**18 299.7**
2032	**18 299.7**	10 379.5	1 917.7	**12 297.2**	7 608.5	1 064.0	0.0	1 141.7	**9 814.2**	**20 782.6**
2033	**20 782.6**	11 161.3	2 120.8	**13 282.1**	8 108.4	1 074.7	0.0	1 227.7	**10 410.9**	**23 653.9**
2034	**23 653.9**	11 972.7	2 346.6	**14 319.3**	8 617.3	1 094.2	0.0	1 317.0	**11 028.5**	**26 944.7**

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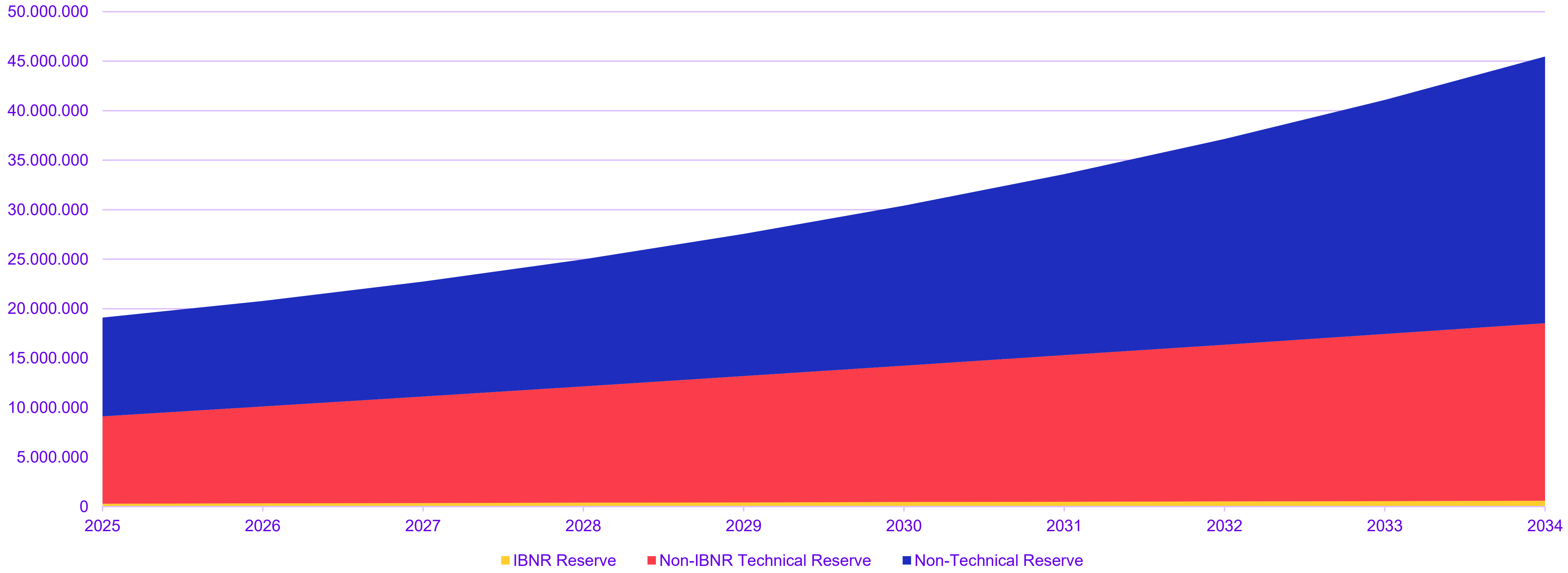
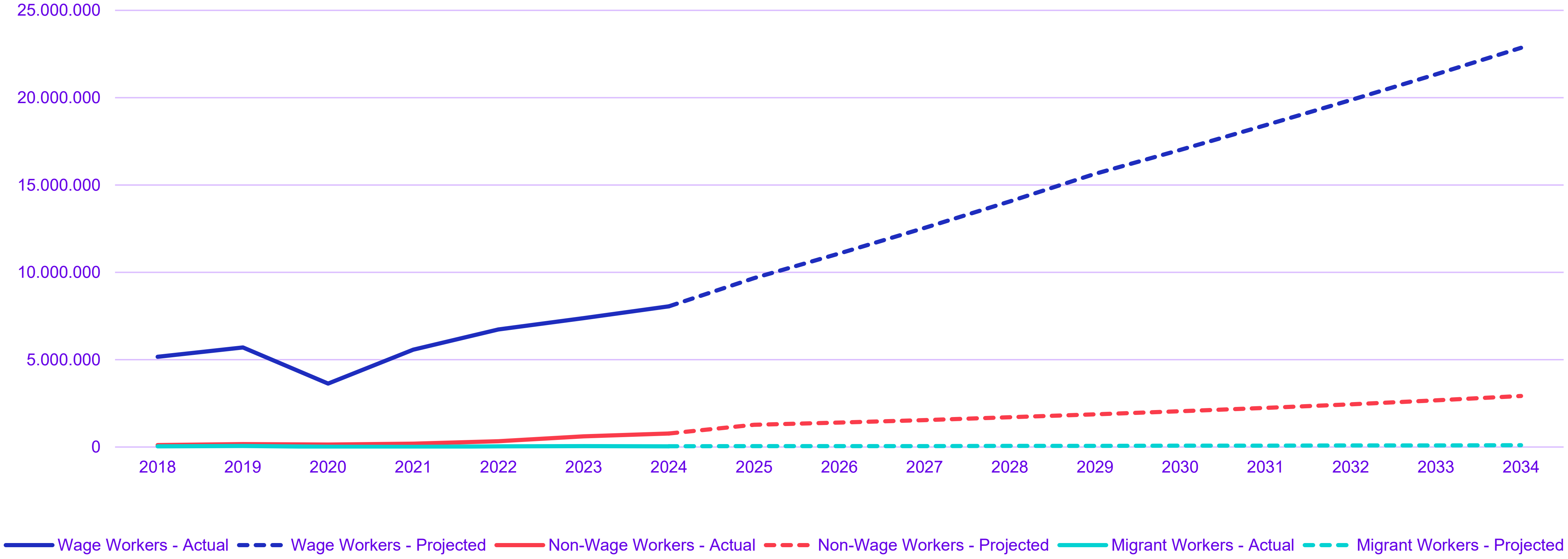
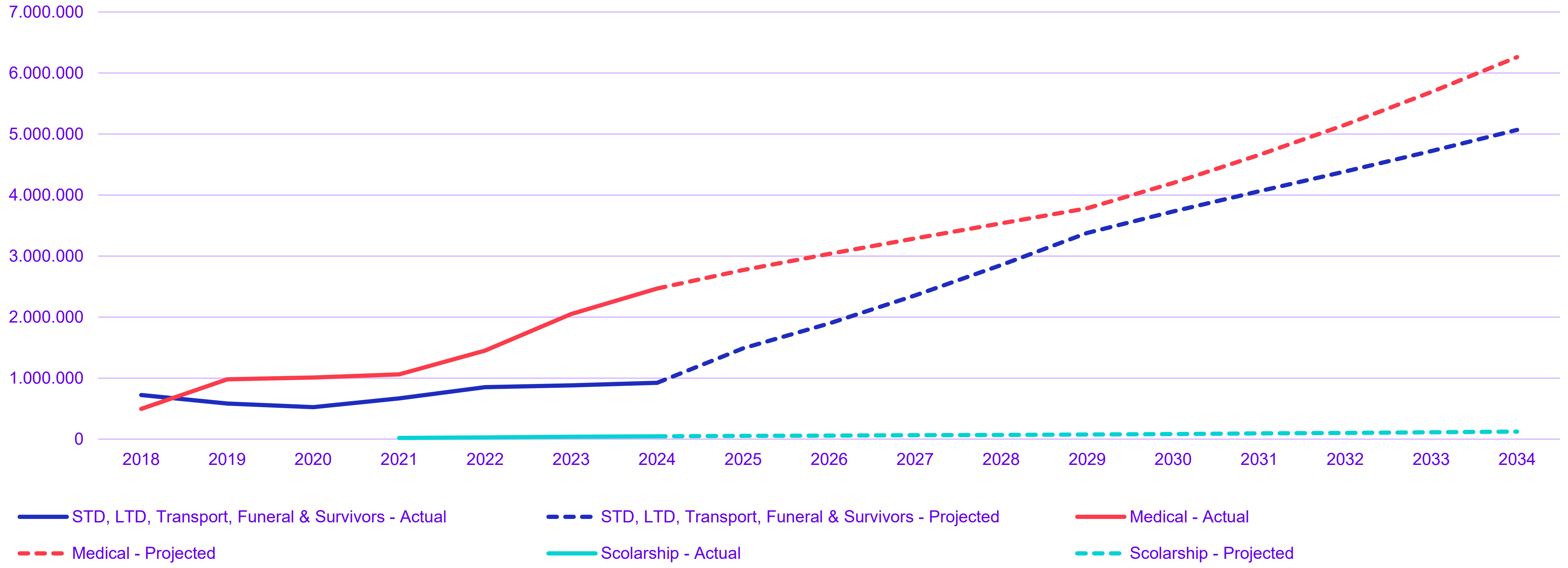
Results of the Base Scenario
Financial Projections – JKM Reserves (in IDR millions)



Results of the Base Scenario
Financial Projections – Contributions – JKK (in IDR millions)



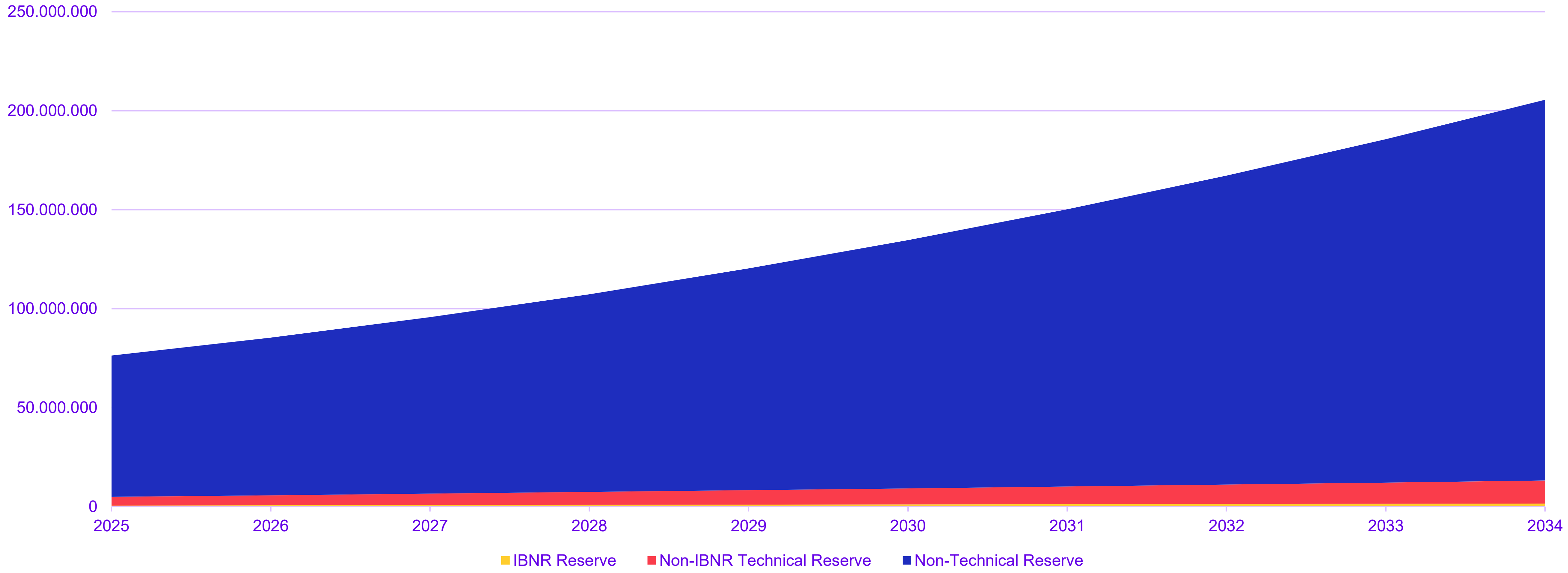
Results of the Base Scenario
Financial Projections – Benefits – JKK (in IDR millions)



Results of the Base Scenario Financial Projections – JKK (in IDR billions)

		Revenues			Expenses					
Year	**Reserve BOY**	**Contrib.**	**Invest.**	**Total**	**Benefits**	**Change in T.R.**	**Redist. to JKP**	**Admin.**	**Total**	**Reserve EOY**
2025	**64 240.0**	10 992.4	3 425.8	**14 418.2**	4 312.8	856.8	1 064.0	1 092.1	**7 325.7**	**71 332.5**
2026	**71 332.5**	12 534.5	3 987.3	**16 521.7**	4 993.6	782.9	1 218.9	1 244.7	**8 240.2**	**79 614.1**
2027	**79 614.1**	14 146.6	4 641.8	**18 788.4**	5 709.9	823.8	1 380.0	1 404.3	**9 318.1**	**89 084.3**
2028	**89 084.3**	15 827.6	5 402.8	**21 230.3**	6 458.7	861.0	1 547.0	1 570.9	**10 437.6**	**99 877.1**
2029	**99 877.1**	17 575.0	6 171.2	**23 746.3**	7 237.2	895.3	1 719.6	1 744.1	**11 596.2**	**112 027.2**
2030	**112 027.2**	19 141.2	6 911.8	**26 052.9**	8 014.5	894.0	1 871.9	1 899.6	**12 680.0**	**125 400.1**
2031	**125 400.1**	20 747.6	7 720.7	**28 468.3**	8 812.4	917.5	2 026.8	2 059.3	**13 815.9**	**140 052.4**
2032	**140 052.4**	22 400.9	8 602.5	**31 003.4**	9 643.0	955.2	2 185.0	2 223.8	**15 006.8**	**156 049.0**
2033	**156 049.0**	24 110.2	9 561.2	**33 671.4**	10 521.4	1 010.3	2 347.2	2 393.9	**16 272.8**	**173 447.6**
2034	**173 447.6**	25 882.8	10 601.2	**36 484.0**	11 453.5	1 071.9	2 514.2	2 570.5	**17 610.2**	**192 321.3**

Results of the Base Scenario
Financial Projections – JKK Reserves (in IDR millions)



Results of the Base Scenario Observations

- Both branches are projected to remain financially sustainable over the next 10 years.
- Technical reserve values are very high compared to the level of benefit paid. They are at a level we could expect for a private insurer. Social security should not be financed like private insurance.
- This is even more obvious in the context of JKK & JKM not paying lifetime benefits but only lump-sums and few recurrent payment (ex: scholarships).
- We understand the necessity by Government Regulations to calculate the technical reserves as they are now.
- The ILO and BPJS-TK should advocate for changes in regulations in line with best international practice for social security schemes, using experience of other members of ISSA.

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Next Steps

Next Steps
Further Information Required from BPJS-TK

- Accounting changes made from 2021 to 2022 (and the extent of their impacts)
- Investment portfolio by type of assets from 2018 to 2024
- Contribution amount specific to the construction workers (and any microdata on construction workers)
- Explanation on the change from explicit investment cost in 2018 to its blending in the investment returns from 2019 onward
- Explanation for higher transportation and disability claims in 2018 in JKK compared to other years

Next Steps
Convention No. 102 Compliant Projections – JKK & JKM

- Lifetime survivors benefits for deaths under JKM (minimum level of benefit will be projected)
- Lifetime permanent disability and survivors' benefits under JKK (minimum level of benefit will be projected)
- Change in funding method for JKM – Scaled premium with revised reserves (IBNR + contingency)
- Change in funding method for JKK – Terminal funding with revised reserves (IBNR + contingency + accrued lifetime benefit)
- Change in projection period for JKM to reflect the long-term nature of benefits (10 years to 75 years)
- Propose a plan for a transition from the current benefits to C.102 compliant benefits

Next Steps
Other Items

- Comments on the preliminary results by BPJS-TK and national stakeholders
- Sensitivity scenarios
- Analysis of the impact of recent reconduction of contribution reduction for participants to JKP
- Analysis of coverage of self-employed under JKK & JKM
- Analysis of coverage of Indonesian workers abroad under the JKK branch (insured in Indonesia, risk is elsewhere, compensation is not linked to real loss of earning capacity)