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Feature · Pensions

What Chengdu's self-employed get from the state pension **Paying ¥1,167 a month buys a lifetime pension of about ¥3,485 a month from 63, a return of about 3.50%**

A worker on Chengdu's median wage of ¥5,833 a month pays 20% of it, ¥1,167, as a self-employed contributor from 33 for 30 years, with wages assumed flat. On that basis the note compares the resulting pension with a private-sector employee and a civil servant on the same wage, and with putting the same money into a US fixed annuity or a monthly S&P 500 plan, measured as monthly income from 63.

Monthly contribution ¥1,167 20% of ¥5,833	Monthly pension ¥3,485 From 63, for life	Pension return 3.50% Drawn to 90, nominal
Employee's own return 6.80% Pays only ¥467	Civil servant ¥6,956 Including occupational annuity	S&P 500 break-even 4.5% To match the pension

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Key findings

Self-employed contributor: ¥1,167 a month buys about ¥3,485 a month from 63, for life. The nominal return to age 90 is about 3.50%, or 4.29% if pensions rise 2% a year. Ignoring interest, contributions are recovered by about 73.

On the same wage a private-sector employee pays only ¥467 for the same pension, a return on own contributions of about 6.80%; a civil servant also has an occupational annuity, about ¥6,956 a month in total from 63. The difference is who pays the employer share.

The same money elsewhere, drawn evenly to 90 at 2%: a US fixed annuity (assuming 5.65% for 30 years) pays about ¥4,277; a monthly S&P 500 plan at the median 30-year return since 1988 in yuan, 9.4%, pays about ¥8,674. An annual return of 4.5% matches the pension.

The pension's return is modest, but it is the only one of the three paid for life without market risk, and it exceeds China's 10-year yield of about 1.65%. The US annuity rate is guaranteed for five years and is about 1.95% after inflation; the S&P 500 fell 51% at its worst over the period.

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Basis of calculation

The wage is Chengdu's all-industry median of ¥5,833 a month from the city's 2023 wage-guidance survey, the latest official city figure; Sichuan's 2026 average wage of ¥7,831 a month is used as an approximation of the pension calculation base. Wages are assumed flat, so contributions and the base stay constant and pensions are not raised after retirement; all amounts are therefore in today's money.

Item	Setting
Contributions	Ages 33–63, 30 years, ¥1,167 a month (¥0.42m in total)
Pension	Current formula, for life from 63; return measured to age 90
Other options	Accumulate at their own rate to 63, then drawn evenly to 90 at 2%
Occupational annuity	3% a year (assumption), paid over 117 months

Flat wages, the occupational-annuity return, a 30-year US annuity rate and future S&P 500 returns are assumptions, not forecasts.

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The self-employed contributor

Self-employed people join the employees' basic pension and pay 20% of the contribution base themselves: 8% to a personal account and 12% to the pooled fund. Sichuan's 2026 base runs from ¥4,699 to ¥23,493, 60% and 300% of the average wage. The basic pension is 1% of the average of the calculation base and own wage per year of contributions; the account pension is the balance divided by 117 months at 63, and any remaining balance can be inherited.

Contribution base	Monthly contribution	Monthly pension at 63	Return	Payback age
Floor ¥4,699	¥939.8	¥3,036	3.78%	72
Median ¥5,833	¥1,166.6	**¥3,485**	3.50%	73
Average ¥7,831	¥1,566.2	¥4,277	3.18%	74
Cap ¥23,493	¥4,698.6	¥10,481	2.46%	76

Return: nominal IRR with benefits to age 90; payback ignores interest. The lower the base, the higher the return, because half of the basic pension is based on the average wage.

04

Same wage, three employment types

Employees' basic pension contributions total 24%, 8% from the employee and 16% from the employer; civil servants follow the same rules and also have an occupational annuity (8% employer, 4% employee). On the same wage of ¥5,833:

Type	Own contribution	Employer	Monthly from 63	Return on own money
Self-employed	¥1,167	¥0	¥3,485	3.50%
Private-sector employee	¥467	¥933	¥3,485	**6.80%**
Employee on the floor ¥4,699	¥375.9	¥751.8	¥3,036	7.09%
Civil servant	¥700	¥1,400	¥6,956 (incl. ¥3,471 annuity)	6.98%

The occupational annuity grows at an assumed 3% a year and is paid over 117 months, to about age 73. Many firms contribute on the minimum base, which lowers the employee's pension.

All three receive the basic pension under the same rules. The self-employed earn less on their own money because they also pay the employer share, not because their benefits are smaller.

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US fixed annuities

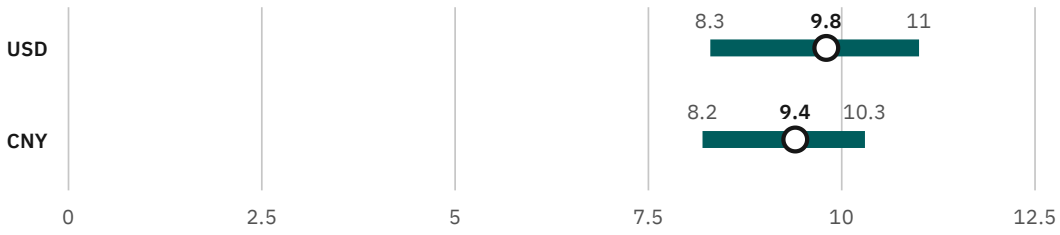
The best five-year multi-year guaranteed annuity from an A-rated US insurer pays about 5.65%, and a 65-year-old man buying a lifetime immediate annuity receives about 7.7% of the premium a year. If 5.65% held for 30 years, ¥1,167 a month would grow to ¥1.07m by 63 and pay about ¥4,277 a month to 90 at 2%. The rate is guaranteed for five years only, and such products are generally sold to US residents. With the 10-year Treasury at 4.96% and CPI inflation at 3.7%, the five-year rate is about 1.95% after inflation; for comparison, China's 10-year yield is about 1.65% and CPI inflation 0.9%.

06

Monthly investing in the S&P 500

Using the S&P 500 total return index since 1988, every 30-year plan of equal monthly contributions was tested (105 windows starting from 1988 to 1996). The median annual return was 9.8% in dollars and 9.4% in yuan, which appreciated against the dollar over the period.

30-year monthly plans: annual return (105 windows)



Bars run from the lowest to the highest window; dots mark the median.

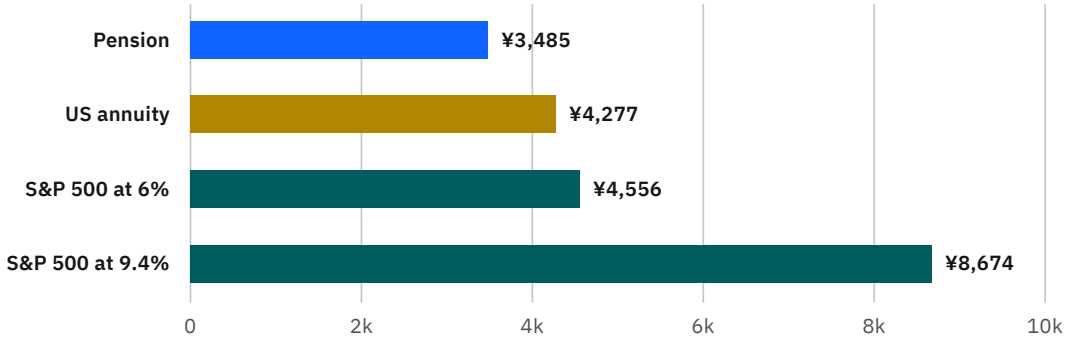
Annual return	Balance at 63	Monthly to 90
9.4% (historical median)	¥2.18m	**¥8,674**
6% (scenario)	¥1.14m	¥4,556
4.5% (matches the pension)	—	¥3,485

All 105 windows start in 1988–1996, a strong period for US equities; the index fell 51% at its worst (2009-02). QDII fund fees, quotas and dividend withholding tax are not included.

07

The three options compared

¥1,167 a month for 30 years: monthly income from 63



The pension is paid for life; the others are drawn evenly to 90 at 2%. The US annuity assumes its rate holds for 30 years.

Option	Return	For life	Certainty	Main risk
Pension	3.50%	Yes	Medium	Changes to indexation and benefit rules
US annuity	5.65%	Optional	Medium	Rate guaranteed for 5 years; US residents
S&P 500 plan	9.4%	No	Low	Drawdown of 51%; currency and fees

The pension's 3.50% return exceeds China's 10-year yield of about 1.65% because of the pooled fund: the basic pension averages the average wage with the worker's own, which favours those earning below average, and longevity risk is shared by all members. Its risk is institutional: indexation and benefit rules may differ from the assumptions.

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Risks and limitations

Rule changes
Benefit formulas, indexation and the minimum contribution period (rising by six months a year from 2030 to 20 years) may change.

Approximate base
Sichuan's pension base was not found; the average wage of ¥7,831 is used.

Flat wages
Rising wages and pensions would raise the pension's nominal return; only a 2%-a-year pension increase is shown.

Markets and currency
The S&P 500 windows all fall in a strong period; future returns may be lower, and yuan investors also bear currency risk, QDII fees and quotas.

Different payout terms
The pension is for life while the others run to 90; it is worth relatively more to those who live longer.

09

Method and sources

Sichuan Human Resources and Social Security Department et al., 2026 contribution bases (7 September 2026); Chengdu 2023 wage-guidance survey.

State Council, Occupational Annuity Measures for public institutions (2015 No. 18); NPC Standing Committee decision on raising the retirement age (13 September 2024).

US annuities: Ethos (MYGA quotes, October 2026) and the ImmediateAnnuities.com survey (9 September 2026); top quotes, not market averages.

S&P 500 total return index (yfinance ^SP500TR month-end); USD/CNY from FRED EXCHUS; Treasury yields and CPI from September–October 2026.

Returns are nominal IRRs of monthly cash flows, pensions to age 90. Information as of 2026-10-25.

This note is a calculation based on public rules and historical data for a general audience. It does not address any individual's circumstances and does not constitute investment advice. Past returns do not indicate future results; local social insurance agencies are authoritative on the rules.

Data as of 2026-10-25 · 四川省人社厅 2026 年度缴费基数；成都市 2023 年工资价位；国办发〔2015〕18 号；Ethos、ImmediateAnnuities.com；yfinance ^SP500TR；FRED

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