Good afternoon.

When we think about financial insecurity among older women, we often think about retirement.

Or perhaps we think about old age.

I would like to invite you to think instead about a very different moment.

The day a woman becomes a widow.

For many women, that is the moment when decades of accumulated inequalities suddenly become visible.

During most of my professional life as an actuary, I worked with what are known as **Markov models**.

They are elegant mathematical models describing how people move from one state to another.

- From education to employment.
- From employment to motherhood.
- From motherhood back to employment, sometimes immediately, sometimes after several years and sometimes not at all.
- From good health to disability.
- From marriage to widowhood.
- From work to retirement.

Each transition changes the probabilities of reaching the next state.

- Some transitions expand opportunities.
- Others may limit them.
- Some are freely chosen.
- Others simply happen.

For years I thought Markov models were simply mathematical tools.

Then one day I realized something much more profound.

The best Markov model is life itself.

Life is a sequence of transitions.

Every transition changes the probabilities of the next one.

Every opportunity opens new possibilities.

Every disadvantage increases the likelihood of another disadvantage.

And every policy has the power to influence those transitions—and therefore the probabilities that follow.

And nowhere is this more visible than in the financial lives of women.

Widowhood reveals inequality

Widowhood does not create inequality.

It reveals inequalities that have accumulated over an entire lifetime.

The death of a husband does not suddenly make a woman financially vulnerable.

Rather, it exposes vulnerabilities that may have been developing for decades.

Widowhood simply makes inequality impossible to ignore.

The financial shock

The death of a spouse often brings an immediate financial shock.

One pension disappears.

Survivor benefits frequently replace only part of the previous household income.

Many household expenses remain unchanged.

Health and long-term care costs may even increase.

For many women, financial insecurity suddenly becomes a reality.

Looking backwards instead of forwards

The obvious question is:

Why?

The answer is rarely found at the moment of widowhood.

It is found by looking backwards.

Much further backwards.

Because life, just like a Markov model, is built through transitions.

The present is shaped by the past.

And the future is shaped by today's decisions.

A lifetime of accumulated disadvantage

In a Markov model, the current state determines the probabilities of reaching the next one.

Life works remarkably the same way.

Lower educational opportunities increase the probability of lower-paid employment.

Lower-paid employment increases the probability of career interruptions.

Motherhood may become another transition, temporarily reducing earnings, pension contributions and opportunities for saving.

Career interruptions reduce pension rights.

Lower pension rights reduce retirement income.

Lower retirement income increases financial vulnerability in widowhood.

Every transition influences the next.

Everything accumulates.

Widowhood is therefore not the beginning of inequality.

It is simply another transition in a journey that may have started decades earlier.

The roots begin in childhood

The roots of inequality often begin in childhood.

Different expectations.

Different opportunities.

Different responsibilities.

Sometimes even different dreams.

Within families.

Within schools.

Within society.

The probabilities already begin to change.

Education shapes financial security

Education is one of the most powerful transitions in life.

Education influences employment.

Employment influences earnings.

Earnings influence pension contributions.

Pension contributions influence savings.

Savings influence financial independence.

Financial independence influences security in old age.

The entire chain matters.

Small differences at the beginning can produce enormous differences forty or fifty years later.

Small inequalities become lifetime inequalities

This is why seemingly small inequalities should never be underestimated.

A slightly lower salary.

A few years outside the labour market.

Periods devoted to unpaid care.

Informal employment.

Reduced pension contributions.

Each difference may appear modest on its own.

Together they reshape an entire life trajectory.

Life continuously updates its own probabilities.

Widowhood is the visible consequence

By the time a woman becomes a widow, the journey is already largely written.

Older women do not become unequal at retirement.

They arrive there after a lifetime of accumulated inequalities.

Widowhood does not create inequality.

It simply makes inequality impossible to ignore.

Pension reform is necessary—but not sufficient

Better survivor pensions are essential.

They protect women against financial hardship.

But they address the consequences.

Not necessarily the causes.

If we focus only on widowhood, we intervene at the end of the journey.

We have already missed countless opportunities to influence the transitions that brought women there.

A genuine life-course approach

Financial security for women requires action throughout life.

Education.

Equal opportunities.

Equal pay.

Recognition of unpaid care.

Recognition of motherhood and periods devoted to raising children.

Affordable childcare.

Universal social protection.

Pension systems that reflect women's real careers.

Gender-responsive pensions require a life-course approach founded on equality between women and men and strengthened by solidarity across generations.

Pension systems are societal choices

As an actuary, I know pension systems are built on numbers.

But behind every actuarial assumption lies a societal choice.

What kind of solidarity do we value?

Does the system recognize periods devoted to raising children?

Does it recognize caring for older relatives?

Does it compensate for structural disadvantages experienced by women?

Does it reflect solidarity across generations?

Or does it reward only uninterrupted full-time careers?

These are not merely technical questions.

They are political choices.

Societal choices.

Choices about fairness.

Choices about equality.

Choices about the society we want to build.

Actuaries estimate transition probabilities.

Policymakers have something even more powerful.

They can change them.

Childcare policies.

Equal pay legislation.

Recognition of unpaid care.

Universal social protection.

Pension credits.

Survivor benefits.

Each of these changes the probabilities of future transitions.

Good public policy changes the Markov model itself.

Knowledge is also protection

There is another inequality that we often overlook.

Many widows simply do not know the rights they already have.

Survivor pensions.

Inheritance rights.

Social assistance.

Administrative procedures.

Financial management.

Information is also protection.

Rights that cannot be understood or accessed are rights that cannot be fully enjoyed.

The human rights perspective

Financial security is not simply an economic issue.

It is about dignity.

Equality.

Non-discrimination.

Autonomy.

Human rights.

Human rights themselves influence life's transitions.

They increase the probability of inclusion.

They reduce the probability of exclusion.

They help create better life trajectories.

The ongoing negotiations in Geneva on a United Nations Convention on the Rights of Older Persons offer an important opportunity.

Not simply to protect people once they become old.

But to reinforce principles that improve lives throughout the entire life course.

Because ageing does not begin at sixty-five.

Ageing begins at birth.

Conclusion

After more than forty years working with actuarial models, I have come to a rather unexpected conclusion.

The most sophisticated Markov model was never inside my computer.

It has always been life itself.

Every transition matters.

Every opportunity matters.

Every policy matters.

Every inequality matters.

Because every transition changes the probabilities of the next one.

That is why the best policy for widows is not simply a better survivor's pension.

It is a lifetime of greater equality...

greater opportunity...

greater empowerment...

and greater knowledge of one's rights.

If we want women to arrive at widowhood with dignity,

we must improve the transitions that lead there.

That is what a genuine life-course approach means.

And perhaps that is the greatest lesson that both actuarial science and human rights have to teach us.

Thank you very much.