

Zurich's draft concept for facilitating pandemic protection

August 28, 2020



- Zurich recognizes the insurance industry's challenges in developing pandemic protection:
 - Pandemic is uninsurable and potential loss is larger than the industry can financially bear alone
 - Solution must be attractive and affordable for businesses (to allow for appropriate take-up rate)
 - Solution must be transparent and reliable over the short and long term for the industry, the government, and policyholders
- Zurich's concept addresses those challenges by leveraging the:
 - Financial stability of the federal government
 - Insurance industry's local service and expertise in underwriting risks and responding to catastrophes
 - Structure of an existing, financially sound, and trusted federal insurance program
- Zurich's concept shares key element with Federal Crop public-private partnership, specifically
 - Businesses voluntarily select coverage through existing brokers / agents, receive premium subsidies (based on size), and use indemnity payments to cover critical financial obligations
 - Carriers provide local delivery and service of the program on behalf of government with an opportunity to voluntarily bear risk based on carriers' appetite (through allocation of policies into pools)
 - Federal government regulates, manages, and financially supports the program (e.g., develops the product, sets rates, bears risk, reimburses for operating expenses)

As the concept is reviewed, it is important to remember that we are operating off limited facts:

- As of August, we still do not understand the full impact of COVID
- Trillions of dollars are being infused into various sectors of the U.S. economy without knowing the full effect

Purpose

- Provide **stability and predictability to businesses** (and employees), ensuring they will be **protected** financially during a pandemic
- **Assure the U.S. economy** can hit 'pause', still take care of its people and be ready to hit 'play' as soon as it is safe, without a prolonged reboot
- **Reduce** and level out **ad hoc disaster payments**

Guiding Principles

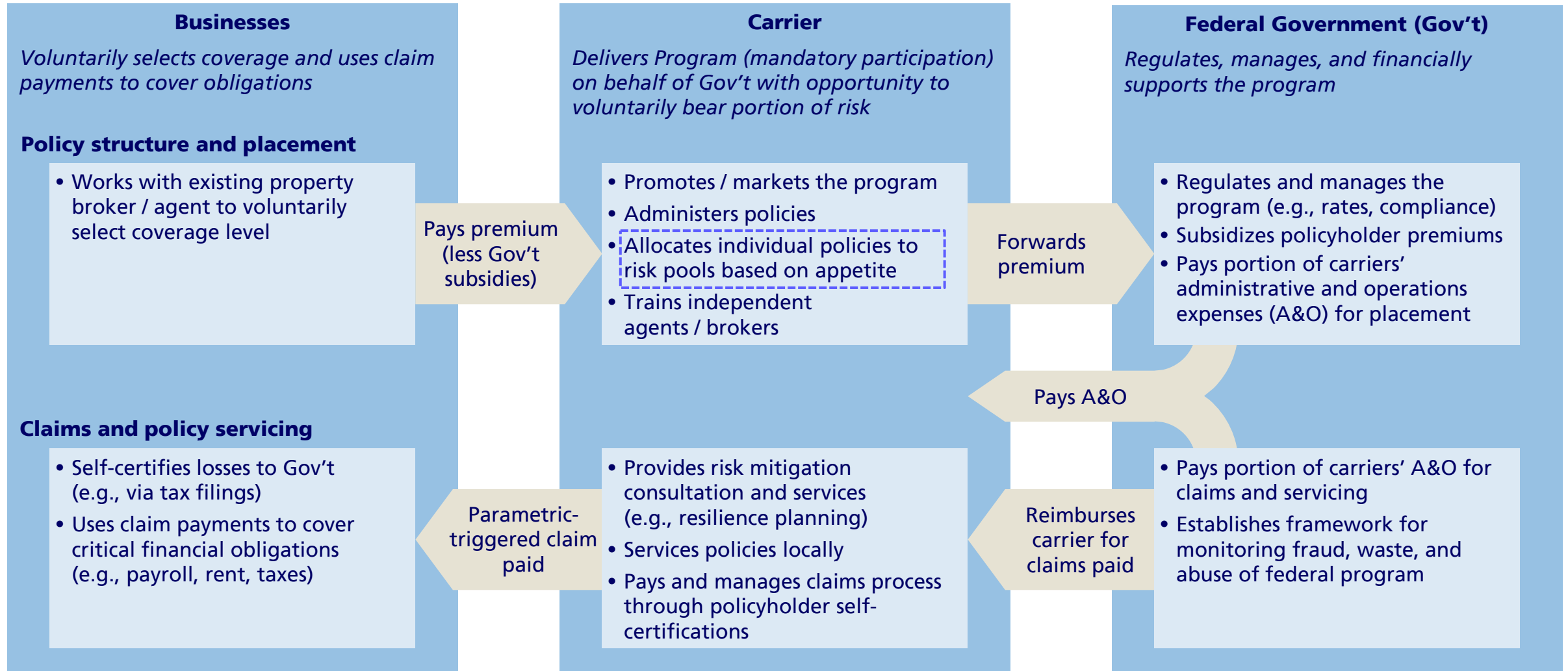
1. Insurance cannot stand in the place of what needs to be borne by the government – **Federal government must be at the table**
2. Insurers are underwriting experts and adept at bearing risk, however, only for finite risks
 - **Pandemic is uninsurable** (e.g., no commercial models, infinite risk, unrestricted geography)
 - **Insurers can manage the risk** by boxing it in and controlling exposure with predefined limits (e.g., cyber)
3. Insurers are adept at quickly and efficiently responding to catastrophes of all kinds
4. Solution **must be attractive and affordable for businesses** (in order to allow for appropriate take-up rate) and represent the primary monetary recoupment mechanism
5. Concept **can be applied to various structural proposals**, LOBs and public-private risk sharing approaches

Summary of Zurich's pandemic risk concept

Component	Description
Value Proposition / structure	<ul style="list-style-type: none">• Customers: take-all-comers approach based on eligibility (eligibility independent of business size)• Coverage: help protect businesses by allowing them to meet critical financial obligations (e.g., payroll, employee benefits, interest payment, rent, accounts payable, taxes)• Deductibles: based on waiting days (e.g., business responsible first X days)• Trigger: multiple / tiered, including federal emergency disaster declaration, federal disaster declaration by state, and business shut down declared (state level)• Risk mitigation: provide service to incentivize customers to improve risk profile• Claims: simple and quick claims process dependent on triggers being met; parametric in nature, but customer still required to self-certify losses
Pricing / enrollment	<ul style="list-style-type: none">• Premium subsidized federally and based upon policyholder selected deductible (e.g., X days)• Rates determined at federal level and based on indexed approach (e.g., industry, region)• Initial enrollment ASAP upon legislation being enacted (mid-term coverage can be offered); following renewals would be part of property program and have same date property policy incepts
Distribution	<ul style="list-style-type: none">• Customers purchase through existing brokers and agents (by leveraging existing state producer licensing laws)• Carriers providing fixed property required to offer customers coverage
Reinsurance	<ul style="list-style-type: none">• Three federal reinsurance pools (100% ceded, 95% ceded and 90% ceded)• Carriers make policy by policy placement decisions• No minimum placement requirements by pool / treaty (e.g. can place all business in 100% ceded pool)• No reinsurance caps or aggregates
Program administration	<ul style="list-style-type: none">• Single set of rules governed at the federal levels (preemption of state insurance laws)• Any private products regulated at federal level• Administration and Operations (A&O) subsidized by program

Pandemic protection would be a public-private partnership between carriers and the federal government

Details to follow



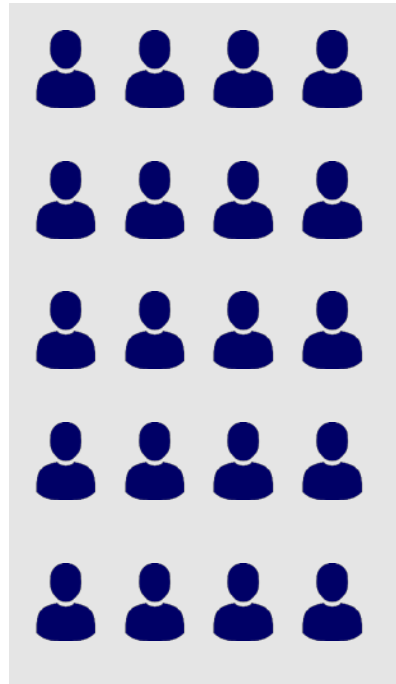
Carrier's risk retention level determined by self-selected mix of policyholders across pools

Elements of pool allocation

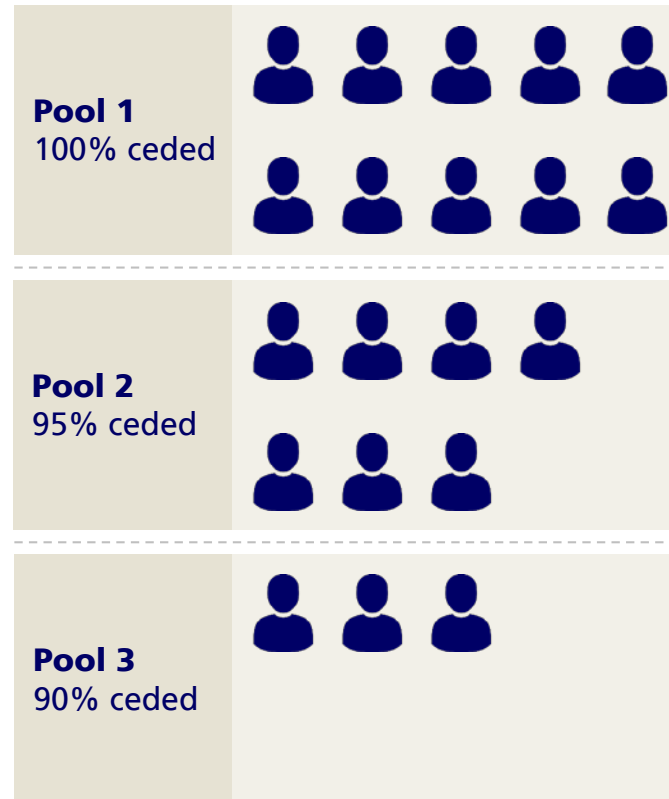
- Carrier has sole discretion to allocate a given policyholder to any of the available pools based on risk characteristics and carrier risk appetite
- Risk retention determined by self-selected mix of policyholders across pools (carrier can utilize all pools)
- Carrier has sole discretion to change risk retention over time (e.g., pandemic risk is more fully understood, risk appetite changes)

Carrier allocation perspective – Example Scenario

Carrier's existing fixed property policy holders



Carriers place individual policies into pools



Potential decision criteria

- High exposure industries / geographies (e.g., urban retail)
- Policyholders with no pandemic risk mitigation procedures
- Moderate pandemic exposures
- Less developed pandemic risk mitigation procedures
- Lowest exposure industries / geographies (e.g., remote professional services)
- Policyholders with well developed pandemic risk mitigation procedures

Estimated that 99% of limits would be ceded to federal government.
Over 90% of carrier retained limits would be borne by carriers with > \$1B policyholder surplus.
 Based on modeling assumptions of carrier pool allocations and insured take-up rates

Zurich worked with the Reinsurance Association of America¹ to create a micro-simulation model to test the concept



Baseline Model Assumptions and Variables

Micro-simulation model has variable inputs around four key assumptions allowing cause and effect relationships to be adjusted based on the simulation

Cause Assumption

Product Design

- Covers 80% of expenses for three months, capped at \$20M per month for employers with 500 or more employees
- Premium charge of 2% Rate on Line for < 500 employees, 3% for 500 or more
- 0.5% preferred risk discount for qualifying risk mitigation programs

Effect Assumption

Insured Buying Behavior

- Take-up rate assumptions by industry NAICS group (e.g. Accommodation and Food Services at 90%, Utilities at 20%)
- 30% qualify for preferred risk discount

Federal Reinsurance Design

- Three reinsurance assigned risk pools
- Pool 1: 100% ceded, 25% ceding commission
 - Pool 2: 95% ceded, 27% ceding commission
 - Pool 3: 90% ceded, 30% ceding commission

Carrier Risk Retention Behavior

- Pool cession assumptions by policyholder surplus (PHS) carrier bands, e.g.
- Carriers with PHS up to \$100M would place 100% into the 100% ceded Pool 1
 - Carriers with PHS > \$1B would place 85% in pool 1, 9% pool 2, 6% pool 3

External Data Sources

Two critical data sources underpin the micro-simulation model

Bureau of Labor Statistics

Entity expense data (payroll and other expenses), employee count and revenue information by state and industry NAICS group

NAIC Statutory Financial Data

Statutory policyholder surplus and commercial multi-peril market share data by insurer

Event Scenario Assumptions

Event scenario simulation inputs allow for

Event Assumptions

- \$1.1 trillion in economic losses per month
- 3 month event duration
- State and industry NAICS groups impacted (set to all for baseline)

Economic Loss Allocation Methodology

Economic loss allocated to state, industry NAICS group and entity size based on wages, number of entities or number of employees (set to wages for baseline)

¹ The Reinsurance Association of America has not endorsed or supported Zurich's concept and their participation should not be taken as an endorsement. They have provided modeling support and technical capabilities for this concept and other proposals.

Model's baseline micro-simulation results in \$1.6T insured event based on \$3.3T in economic loss, of which \$15B is born by the insurance industry



Over \$1T, 66% of the insured losses are for entities with fewer than 500 employees



Federal government retains 99% of insured losses



Top five states account for 42% or \$661B of insured losses
(CA, TX, NY, FL, IL)



\$14B of insured losses retained by carriers with policyholder surplus > \$1B