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# Gravity in FX R-Squared: Understanding the Factor Structure in Exchange Rates

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We relate the risk characteristics of currencies to measures of physical, cultural, and institutional distance. The currencies of countries which are more distant from other countries are more exposed to systematic currency risk. This is due to a gravity effect in the factor structure of bilateral exchange rates: When a currency appreciates against a basket of all other currencies, its bilateral exchange rate appreciates more against the currencies of distant countries. As a result, currencies of peripheral countries are more exposed to the systematic variation than currencies of central countries. Trade network centrality is the best predictor of a currency's average exposure to systematic risk.

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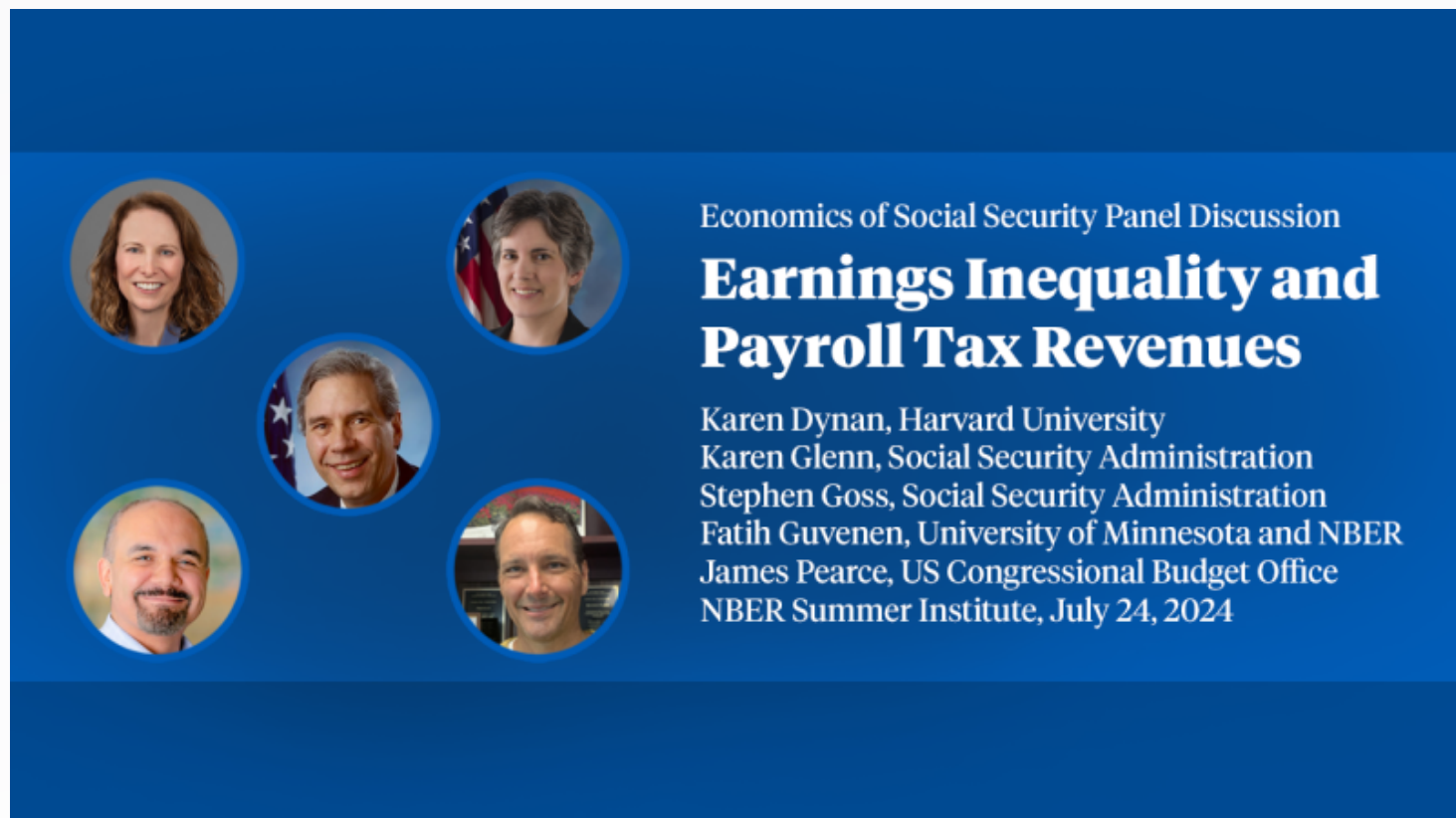
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