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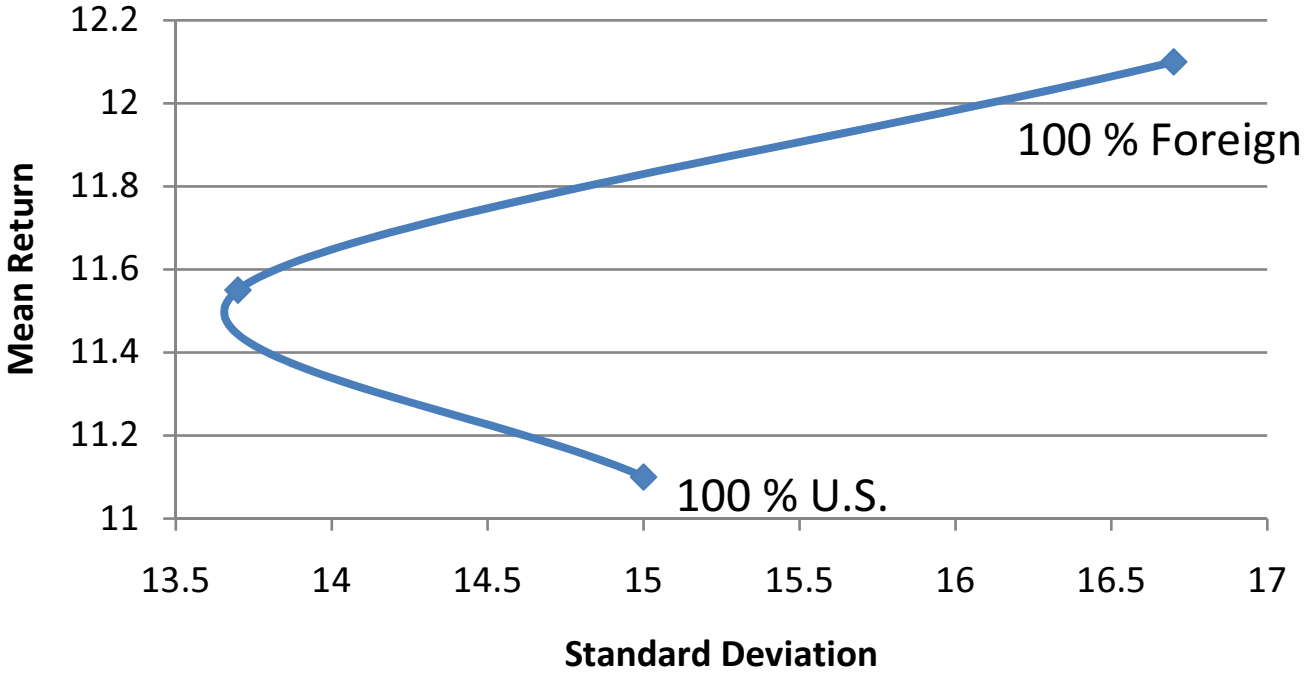
- This paper takes a more optimistic line.

Risk-Return Tradeoff for Portfolios of U.S. and Foreign Equity:



Two Important Contributions:

- Theoretical:
  - With investment-specific shocks and trade in bonds, domestic equity provides a robust hedge for domestic risk.
  - Clarification and expansion of Heathcote and Perri (2007).
- Empirical:
  - When appropriately measured, domestic equity indeed hedges domestic labor income risk.
  - Overturns Baxter and Jermann (1997).

Intuition for the Result:

- Builds on models in which fluctuations in terms of trade facilitate risk sharing.
- Cole and Obstfeld (1991):
  - Two-country endowment economy with log-separable preferences in home and foreign good.
  - Unit elasticity of substitution implies that terms of trade vary one-for-one with productivity shocks.
  - Full risk sharing achieved with any degree of diversification.

Intuition for the Result:

- In equations:
  - Preferences given by:

$$\log(c_t) + \log(c_t^\star)$$

  - i.i.d. endowments y_t and $y_t^\star$ at home and abroad.
  - Trade in shares of endowment tree.
  - Relative price of home good:

$$p_t = \frac{y_t^\star}{y_t}.$$

  - Dividend for country holding fraction d of domestic tree and $1 - d$ of foreign tree:

$$dp_t y_t + (1 - d)y_t^\star = y_t^\star = p_t y_t.$$

Intuition for the Result:

- Home bias with redistribution shock:
  - Consider model with constant endowment:

$$y = y^{\star} = \bar{y}.$$

  - Fraction a_t of y is paid as dividend to owners of tree that can be traded. Fraction $1 - a_t$ is paid as labor income to workers, which cannot be traded. a_t is stochastic.
  - Efficient allocation (i.e., constant consumption) is obtained only if entire tree is held domestically.
  - Result still goes through if we add shocks to income while maintaining log-separable preferences.

Intuition for the Result:

- Heathcote and Perri (2008):
  - Add capital investment to Cole-Obstfeld model.
  - Positive productivity shock triggers higher investment in home technology, which benefits home workers.
  - Optimal sharing of investment expenditure is achieved via home-bias in equity portfolio: domestic workers finance most domestic investment.
  - Result hinges on unit elasticity of substitution: Terms of trade are still doing most of the work for international risk sharing.

Intuition for the Result:

- Coeurdacier, Kollmann, and Martin (2008):
  - Relax assumption of unit elasticity of substitution.
  - Add investment-specific shocks and bonds.
  - As long as at least some terms-of-trade effect is present, bond investments can be used for insurance against aggregate shocks.
  - Equity portfolio then deals with the investment-specific shocks.
  - Optimal sharing of investment expenses requires home equity bias, for the same reason as in HP.
  - Result is robust to variations in elasticity of substitution between home and foreign goods.

How Credible is the Explanation?

- Paper suggests that the hedging story was dismissed too quickly.
- But is the story really a credible explanation for the diversification puzzle?
- Major question: do we really observe the high levels of risk sharing implied by the model?

Home Bias in Consumption:

- Correlations in the growth rate of consumption (1950–1992):

	Japan	France	Germany	U.K.
U.S.	0.183	0.220	-0.092	0.584
Japan		0.638	0.206	0.097
France			0.054	0.092
Germany				-0.139

- In most cases, consumption growth is less correlated across countries than output growth.

Home Bias in Bonds:

- In the model, bonds are doing most of the work for risk sharing.
- But bonds are subject to home bias as well (Fidora, Fratscher, and Thimann 2007):

	Equity Bias	Debt Bias
U.S.	75.1	91.2
U.K.	67.1	57.9
France	72.4	63.3
Germany	61.6	72.4
Japan	89.3	82.6
Emerging Economies	95.7	92.2

What Kind of Bonds?

- Bond portfolios should hedge terms-of-trade changes.
- But many countries cannot borrow internationally in their own currency.
- In Euro area, international bond holdings are biased toward Euro-area bonds (Lane 2005).

What about Inflation Risk?

- Model considers real bonds, but most actual bonds are nominal.
- Holding foreign bonds exposes investor to nominal risk unrelated to productivity changes.
- Does this lower the ability of bond to hedge terms-of-trade changes?

Other Questions:

- How do portfolios change if there are additional shocks?
- Can we make progress with limited participation in international capital markets (i.e., who is the marginal investor pricing assets)?

Conclusion:

- Paper shows that hedging story has more promise than initially thought.
- Still, not clear whether risk sharing implied by model takes place in practice or even could be achieved in theory with given available financial instruments.