

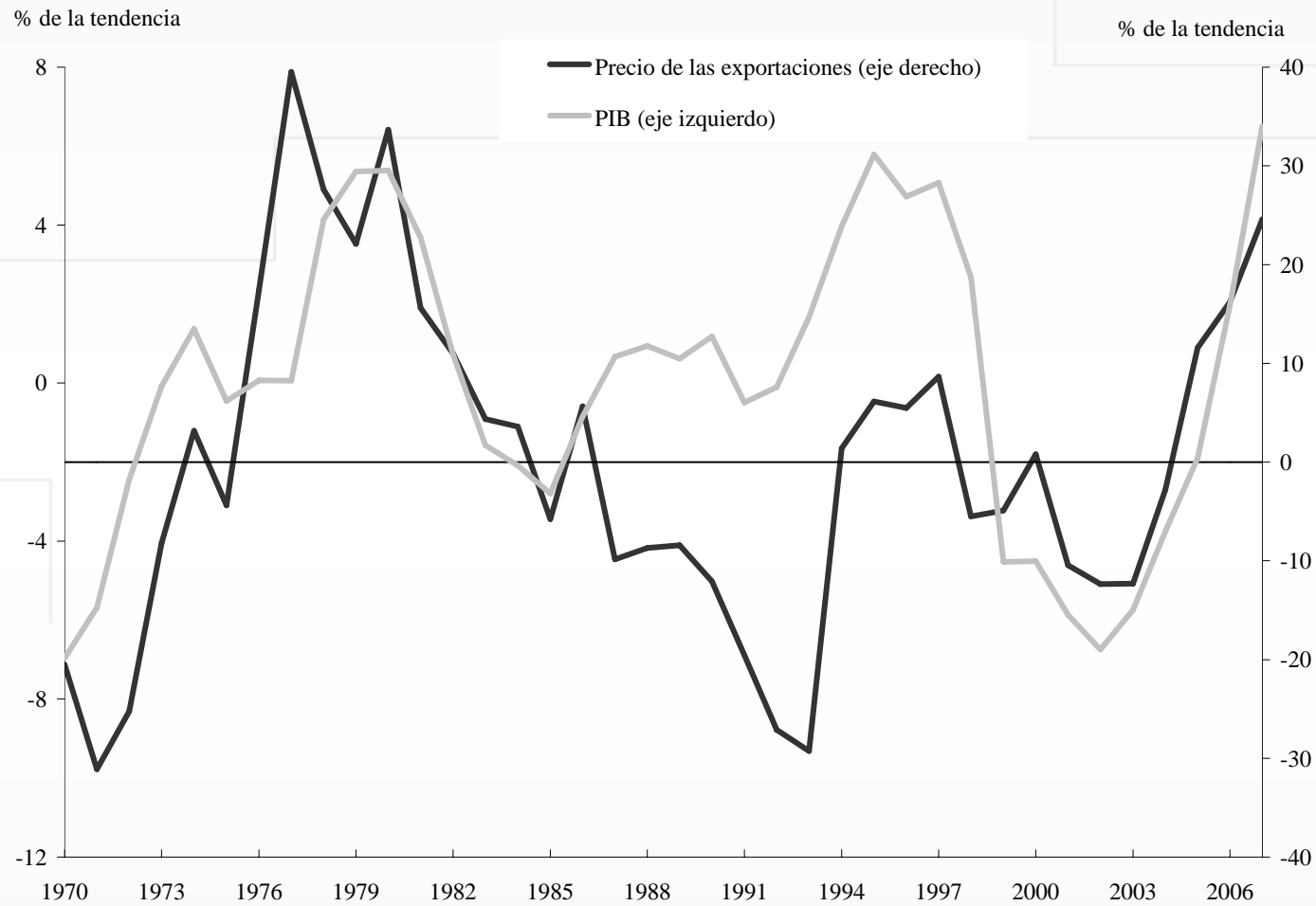


How exactly do Capital Flows Affect an Emerging Market Country?

Lavan Mahadeva
Javier Gómez Pineda

17 February, 2011.

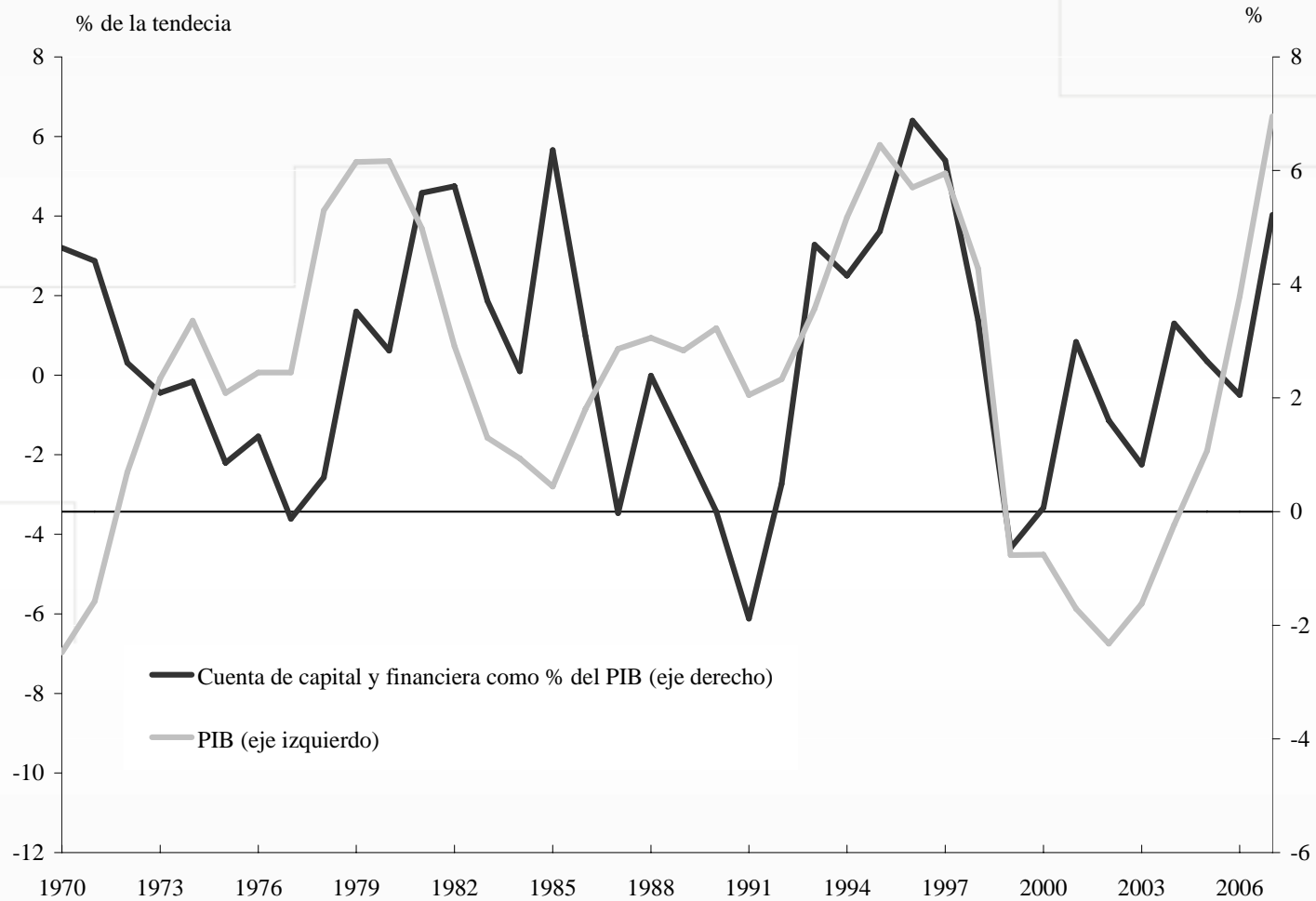
Motivation



Fuente: DANE y cálculos propios.



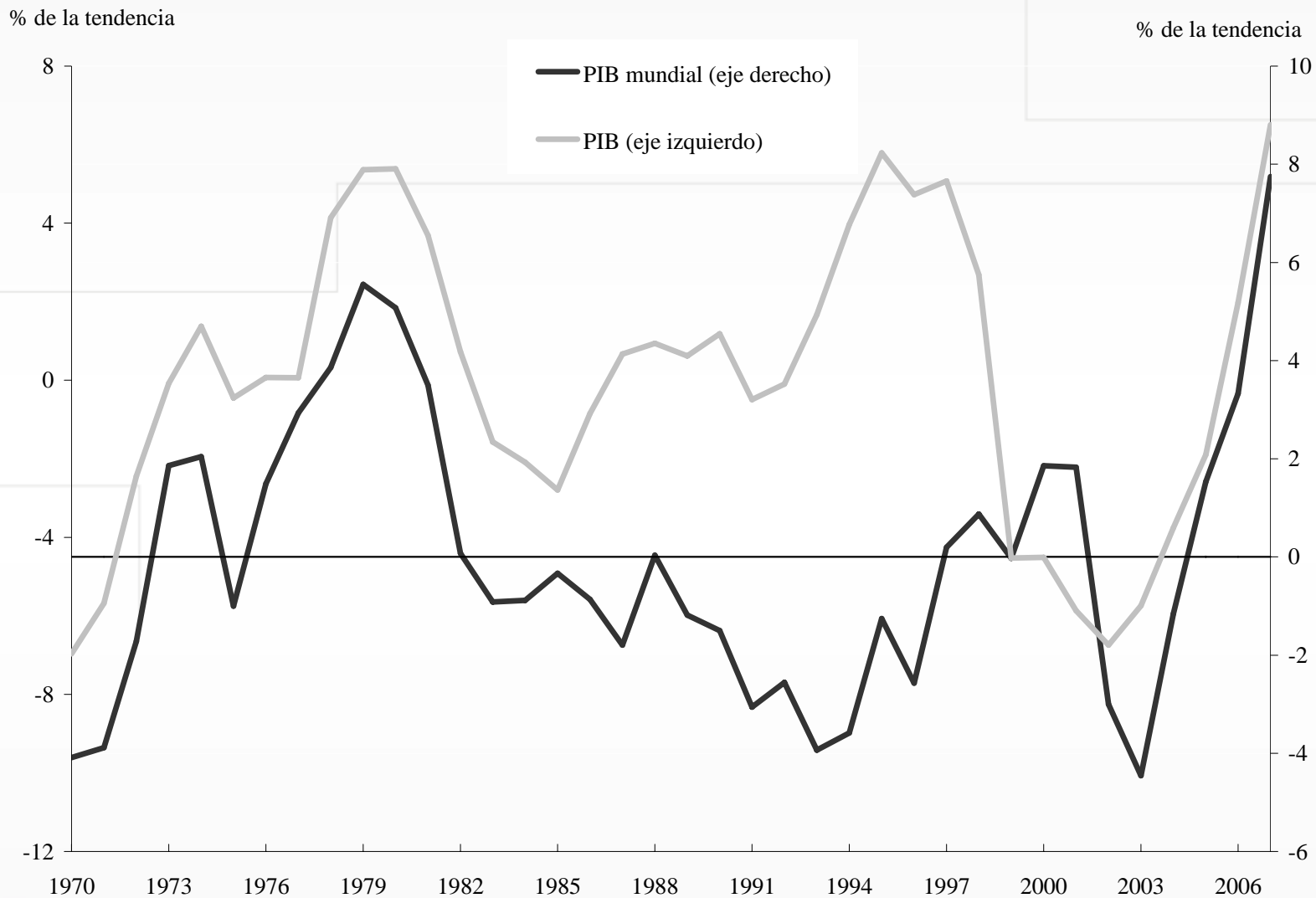
Motivation



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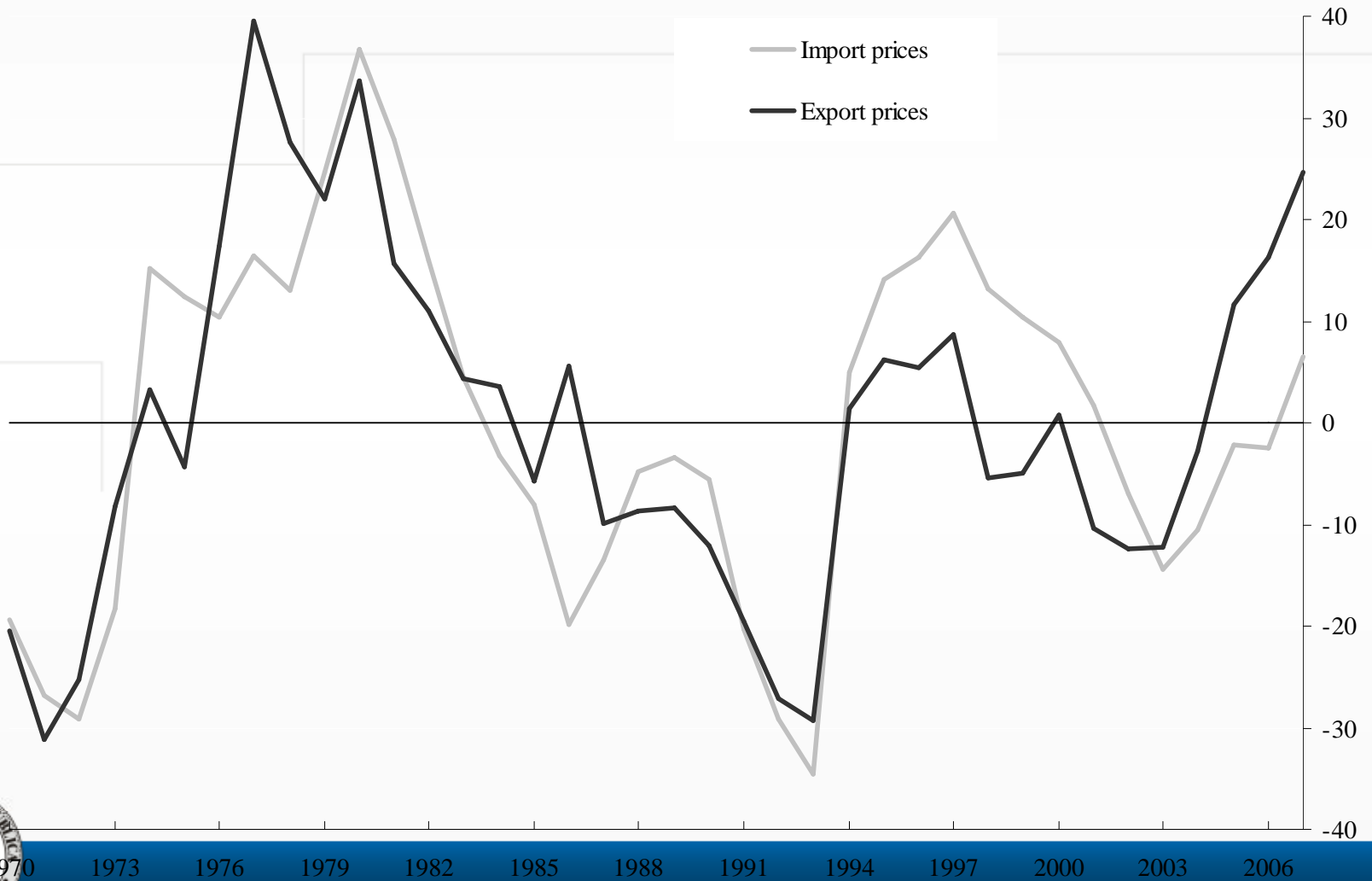
World GDP



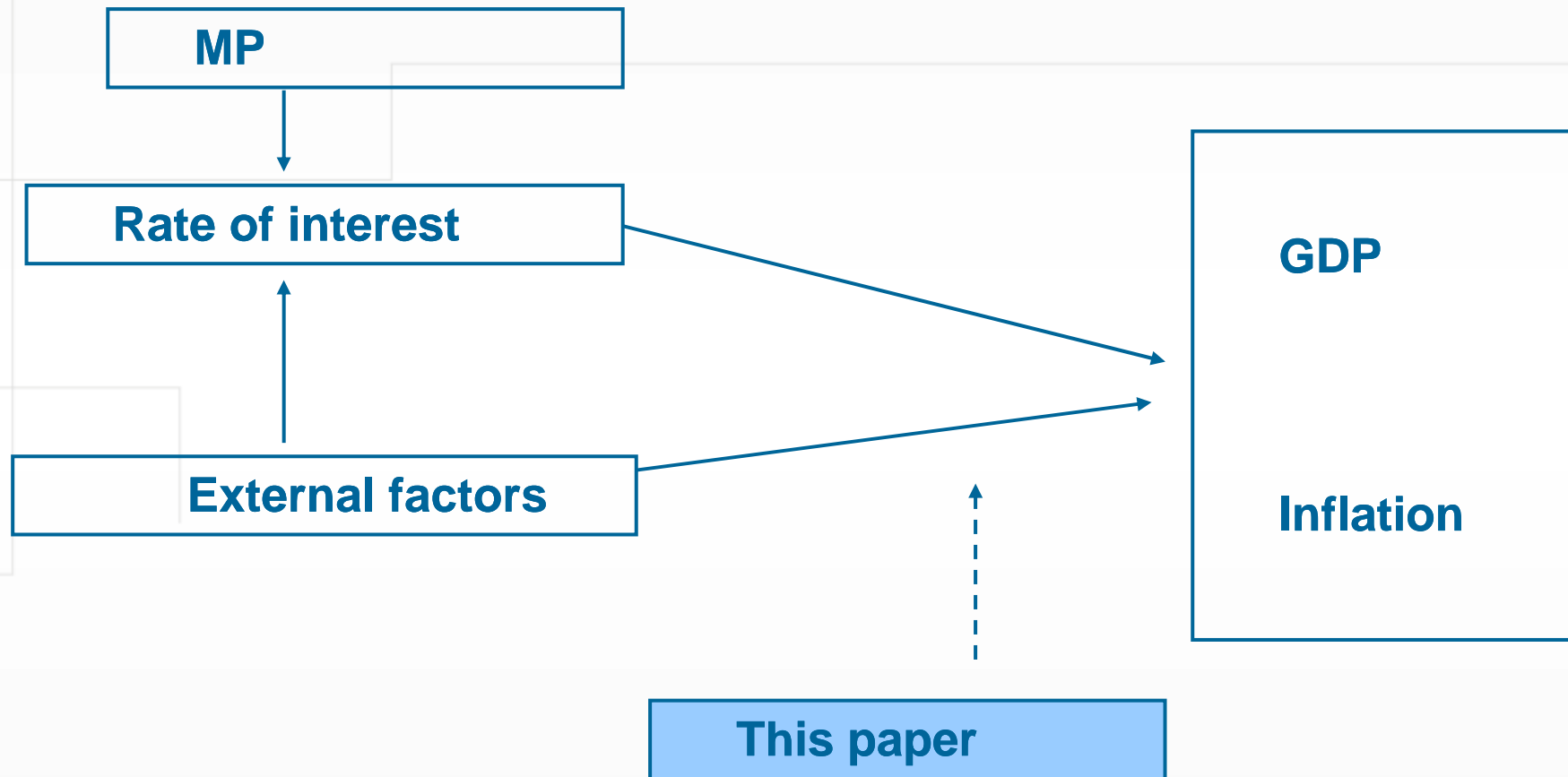
Fuente: DANE y cálculos propios.

Import and export prices (cycles in real dollar terms)

% of trend



Role of External Factors



Questions

- **What is the impact on GDP?**
- **What is the first-year effect?**
- **How are external factors related to each other?**



Contribution on impact to real GDP

Data series on the
external factor

X

Elasticity of impact

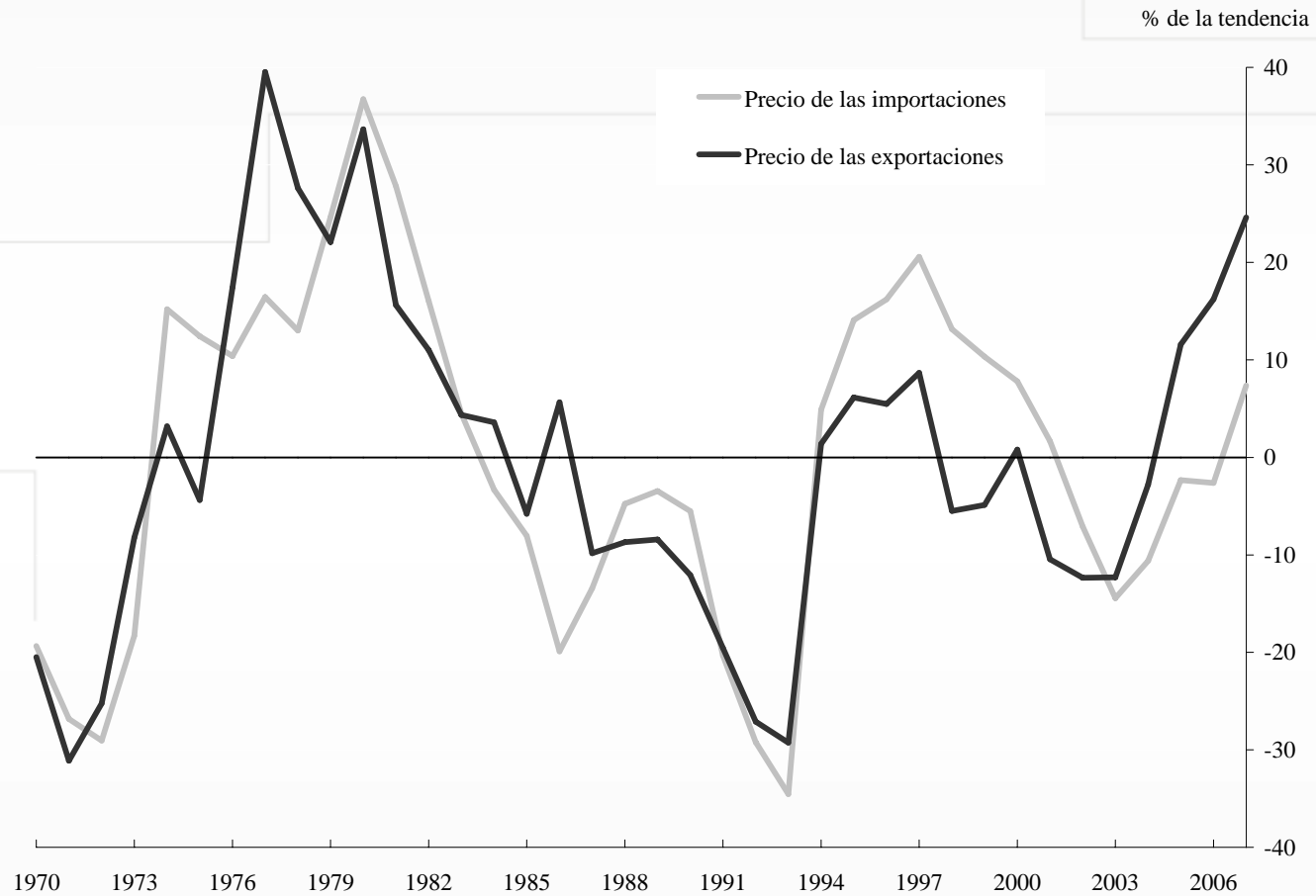
Contribution to real
GDP on impact

↓
≠
↓

First-year effect



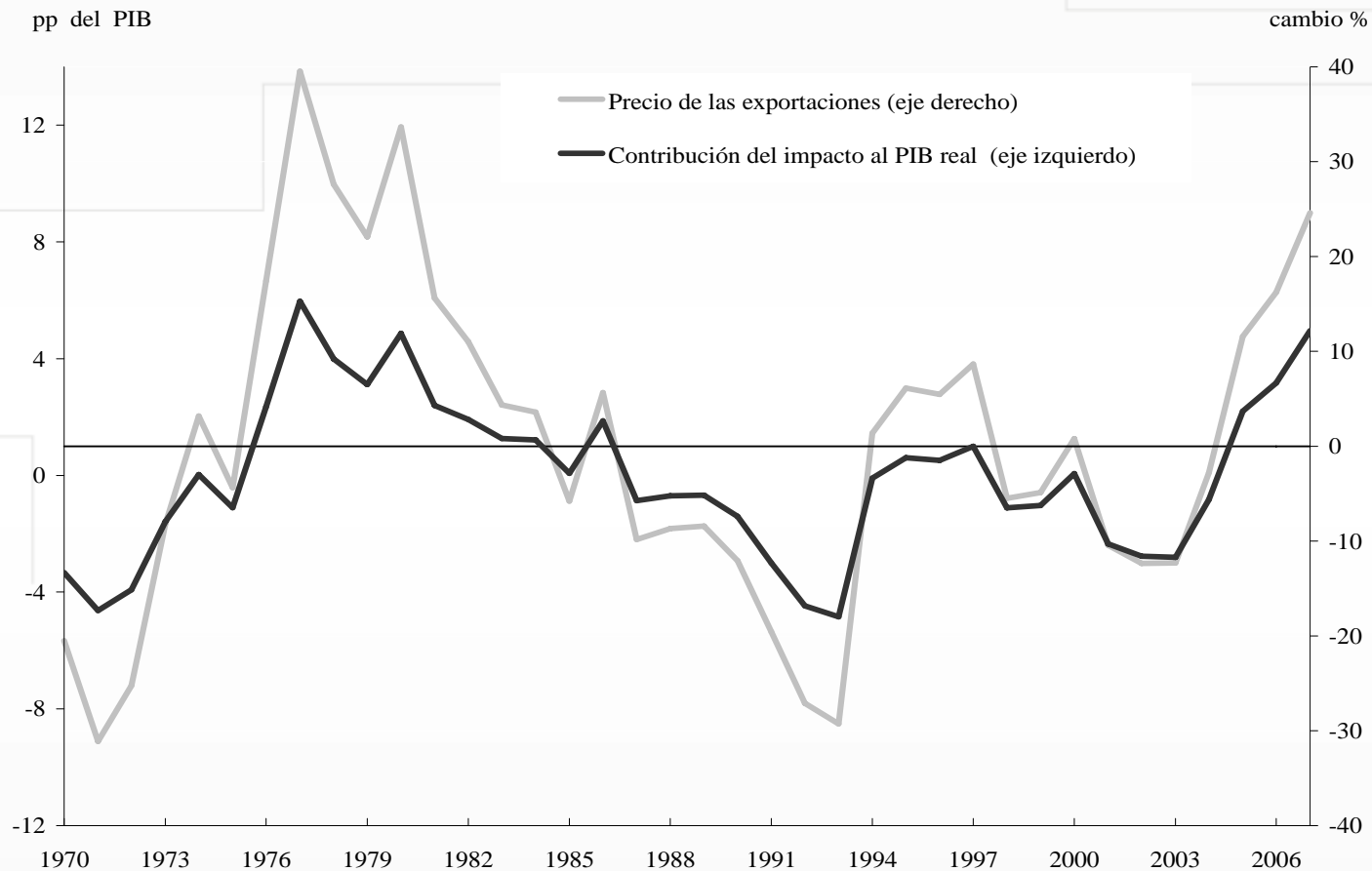
Export and import prices



Fuente: DANE y cálculos propios.



Real dollar export prices and its contribution to GDP



Fuente: DANE y cálculos propios.



Impact elasticity and contribution on impact

	Desviación	Promedio de la elasticidad del impacto			Promedio de la	Desviación
	estándar del ciclo de las series iniciales (% de la tendencia) 1970-2007	sobre el PIB			amplitud de la contribución del ciclo (pp del ciclo del PIB) 1970-2007	estándar del ciclo de la contribución (pp del ciclo del PIB) 1970-2007
		1970-89	1990-2007	2007		
Precio de las exportaciones	16,88	0,14	0,19	0,22	5,10	2,75
Precio de las importaciones	10,80	-0,15	-0,20	-0,24	2,62	1,73
Cuenta de capital y financiera					5,99	2,52
PIB mundial	2,86	0,14	0,19	0,22	0,56	0,63
Términos de intercambio					5,77	1,88
PIB real per cápita					0,41	3,75



Fuente: Cálculos propios.

External factors and real GDP

Correlación robusta	Precio de las exportaciones	Cuenta de capital y financiera	PIB mundial
Ciclo del PIB real per cápita	0,57	0,36	0,33



Fuente: Cálculos propios.

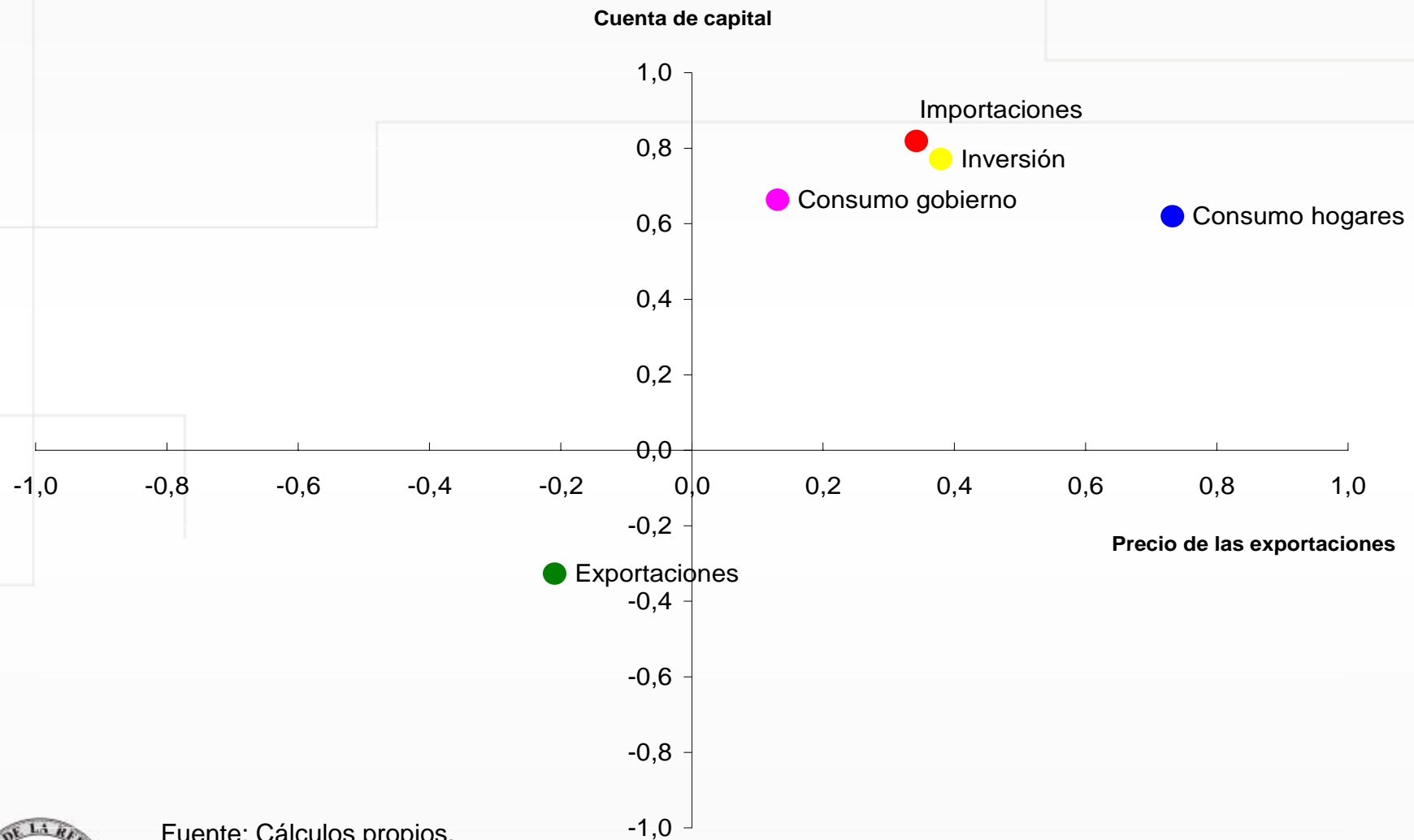
When it rains,...

Correlación robusta	Precio de las exportaciones	Cuenta de capital y financiera
Cuenta de capital y financiera	0,36	
PIB mundial	0,69	0,20



Fuente: Cálculos propios.

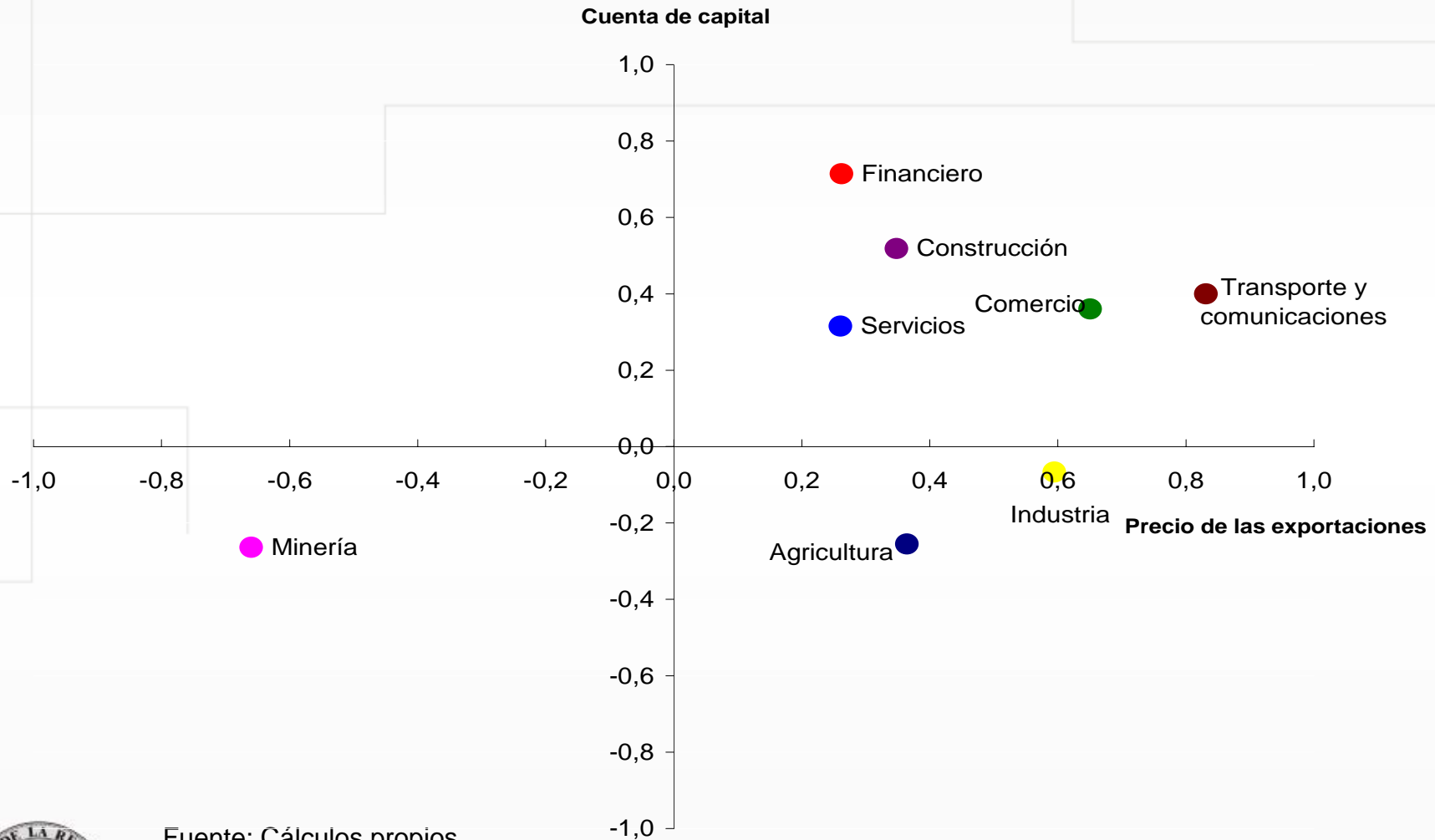
Correlations between GDP expenditure components and external factors



Fuente: Cálculos propios.

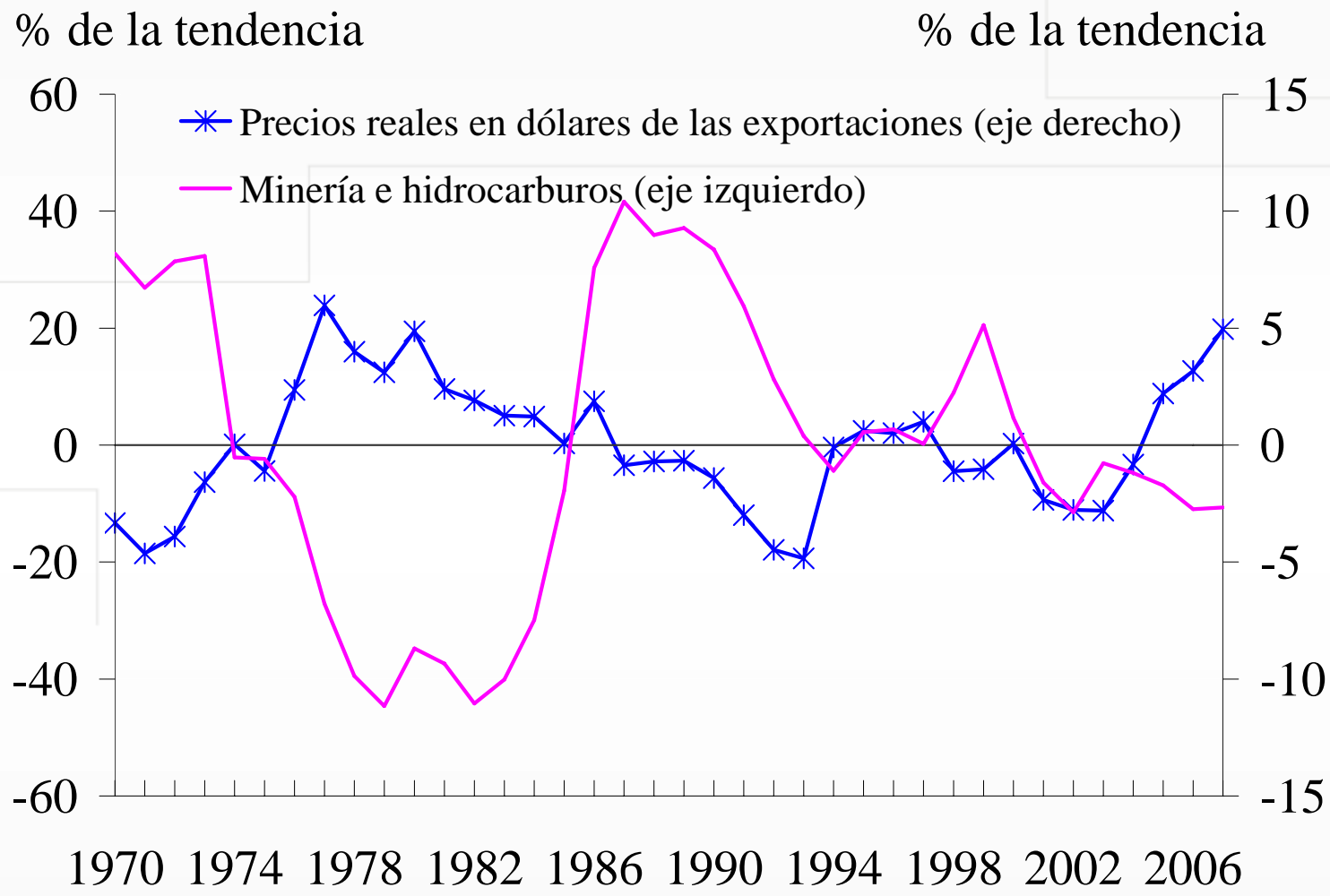


Correlations between GDP sectors and external factors



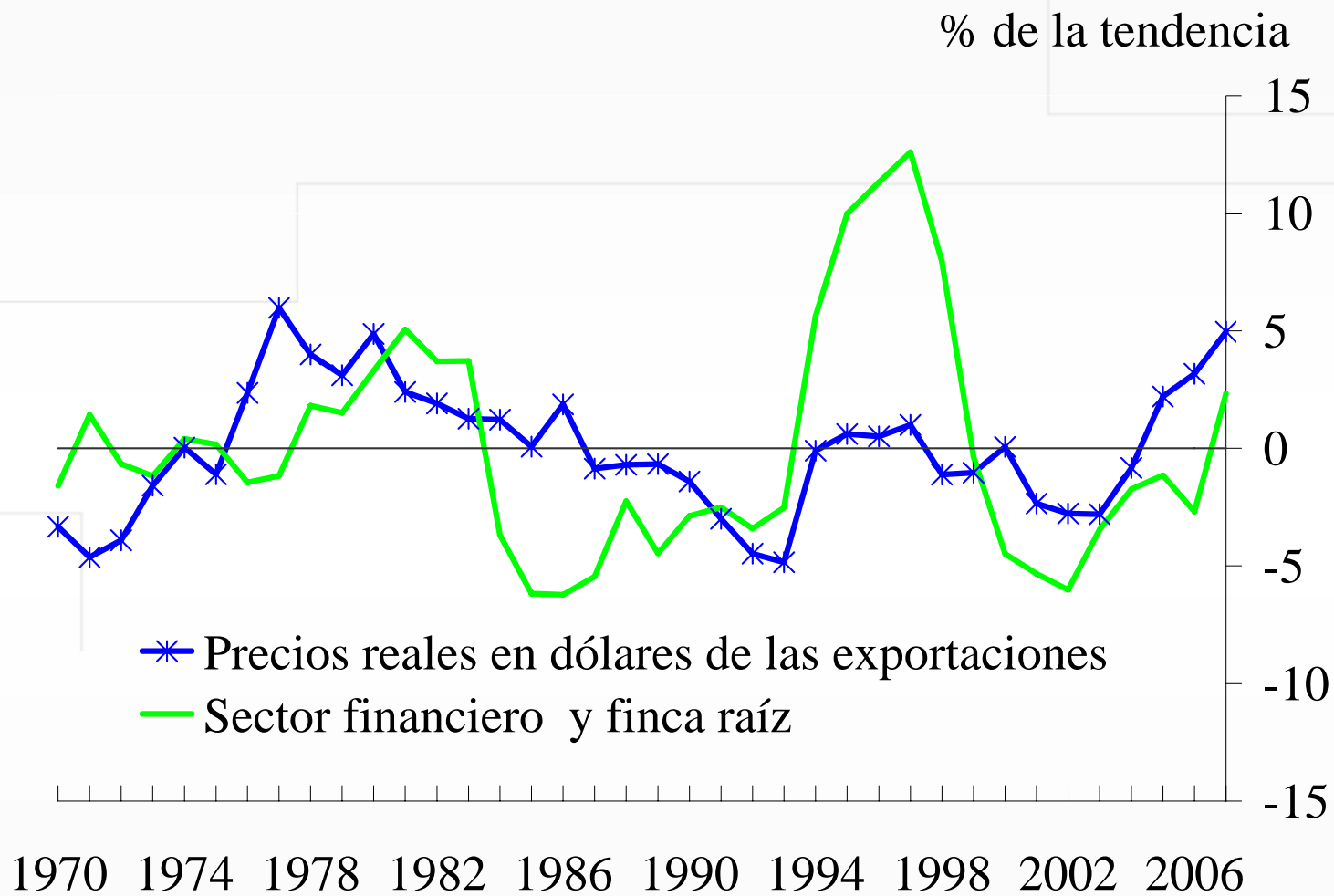
Fuente: Cálculos propios.





Fuente: Cálculos propios.

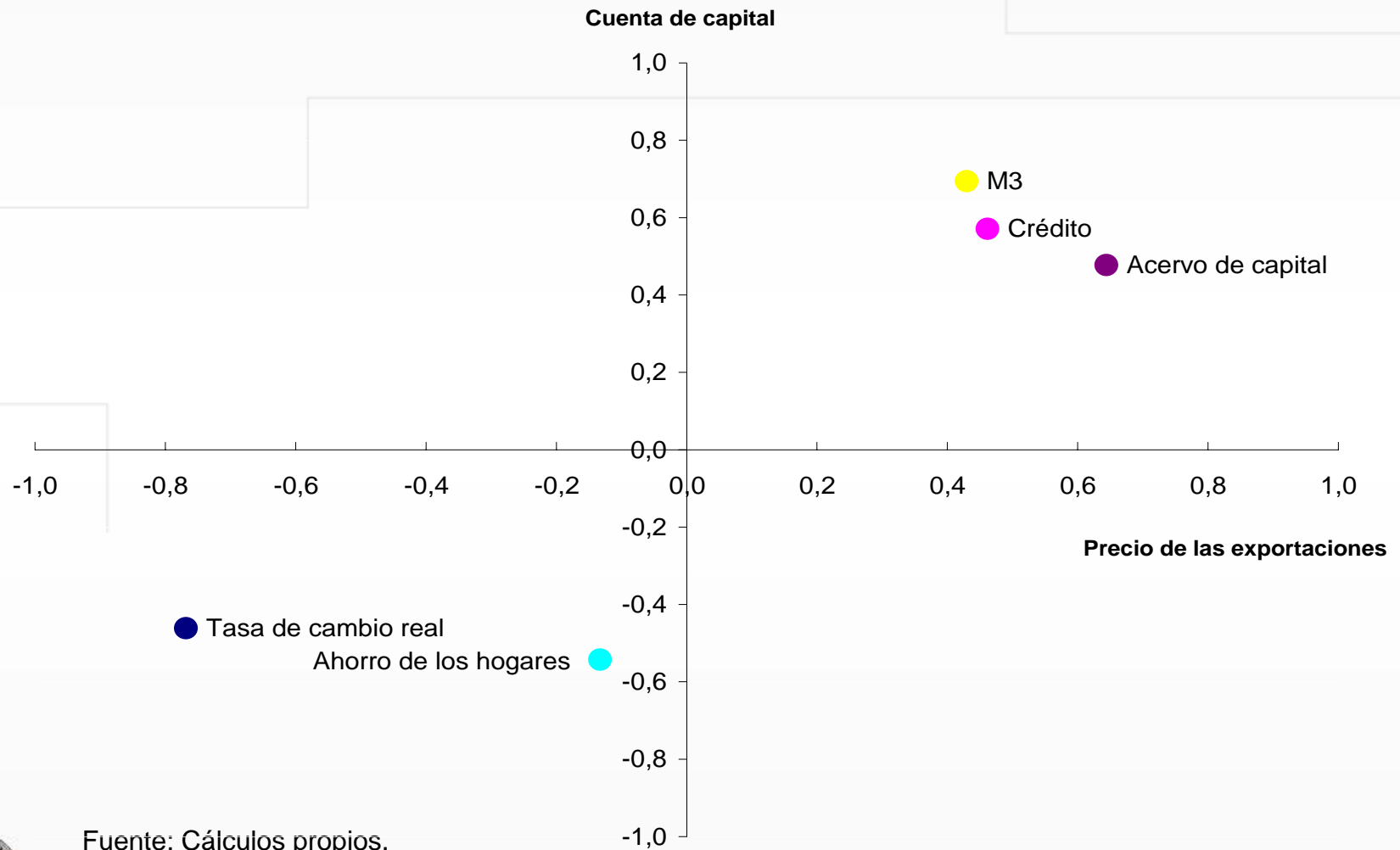




Fuente: Cálculos propios.



Correlations between financial factors and external factors



Fuente: Cálculos propios.



Possible amplifiers

- **Gasto de los sectores transables en servicios no transables.**
- **Bancos intermediarios.**
- **Ciclo de los depósitos y el crédito.**
- **Política monetaria procíclica.**
- **Política fiscal procíclica.**

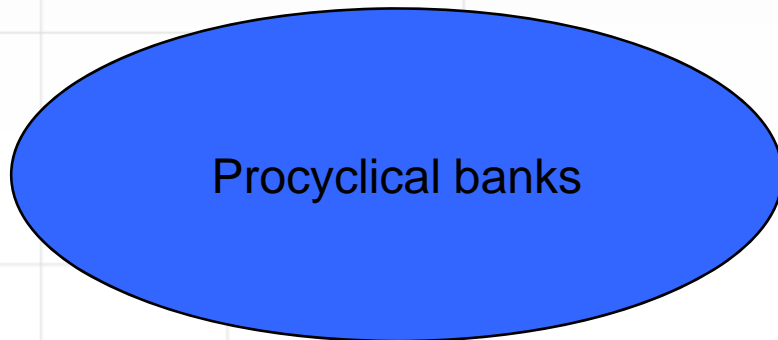


net capital
inflow



resources for
tradable sector and
public sector

deposits



Macro policy

credit



Consumption,
investment

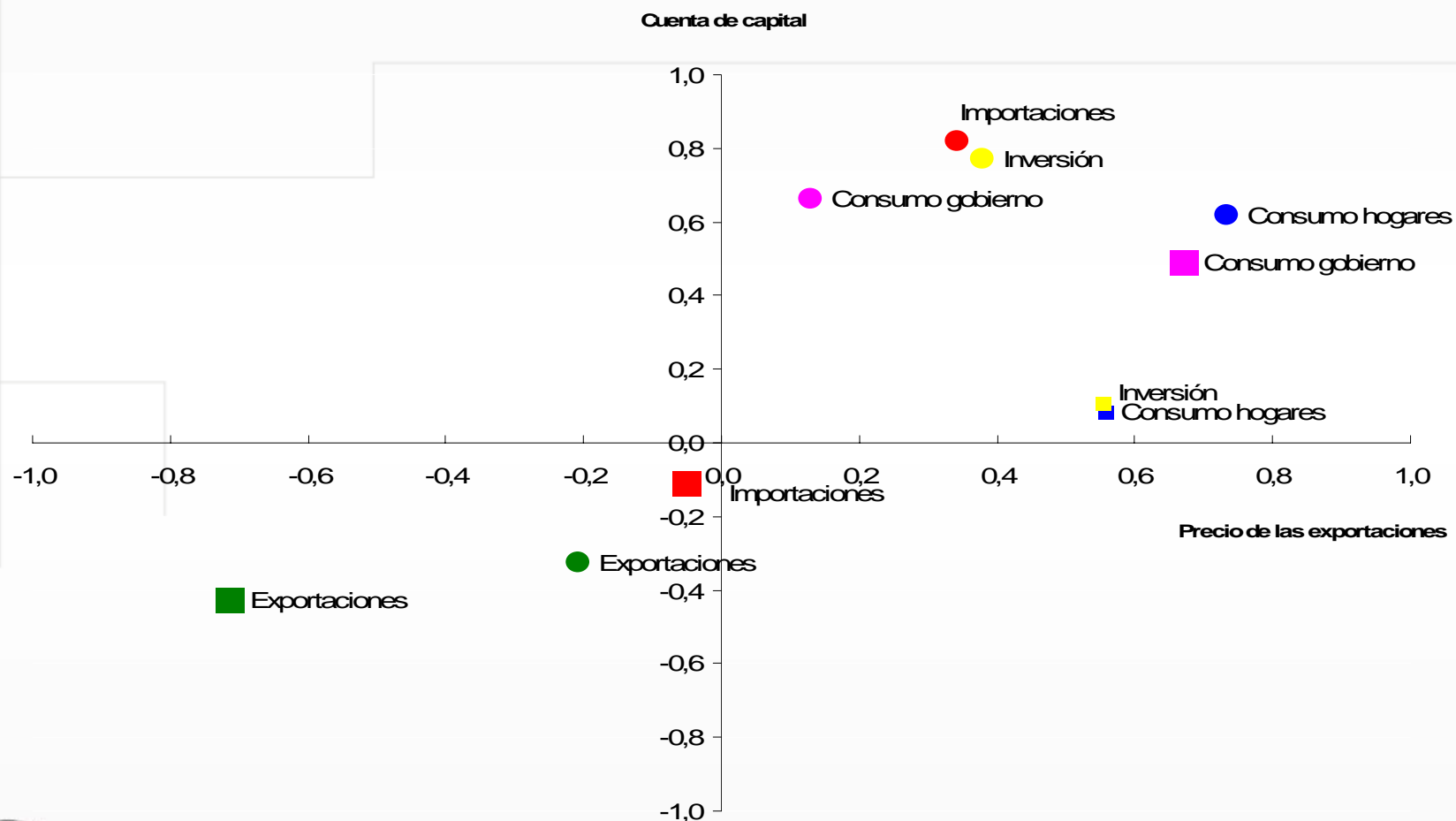
Inflation, external
stability and FS
risks



Overvalued assets,
low long real rates



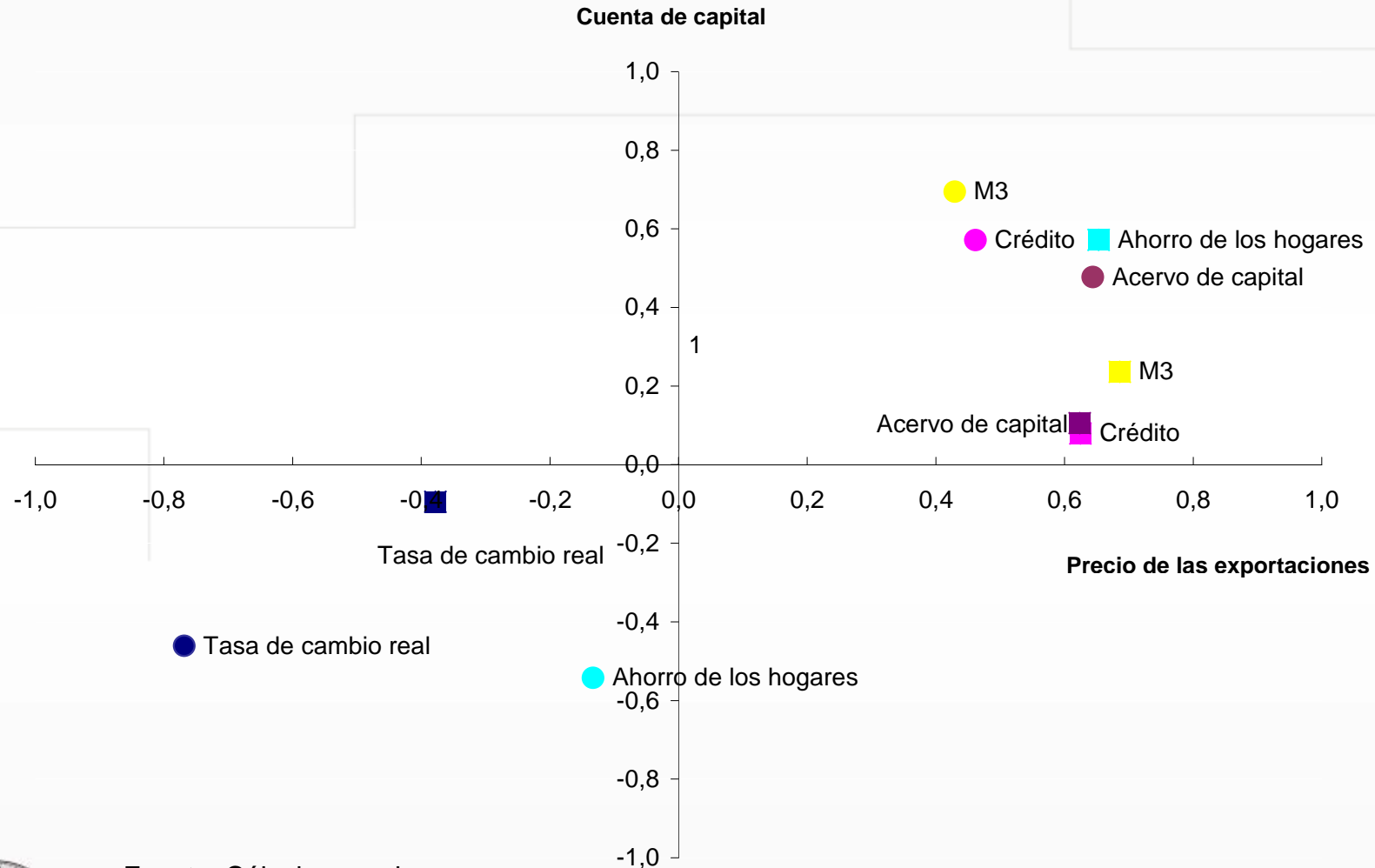
Correlations between GDP expenditure and external factors Colombia vs Canada



Fuente: Cálculos propios.



Correlations between financial factors and external factors Colombia vs Canada



Fuente: Cálculos propios.



Correlación con el componente cíclico del acervo de capital

1

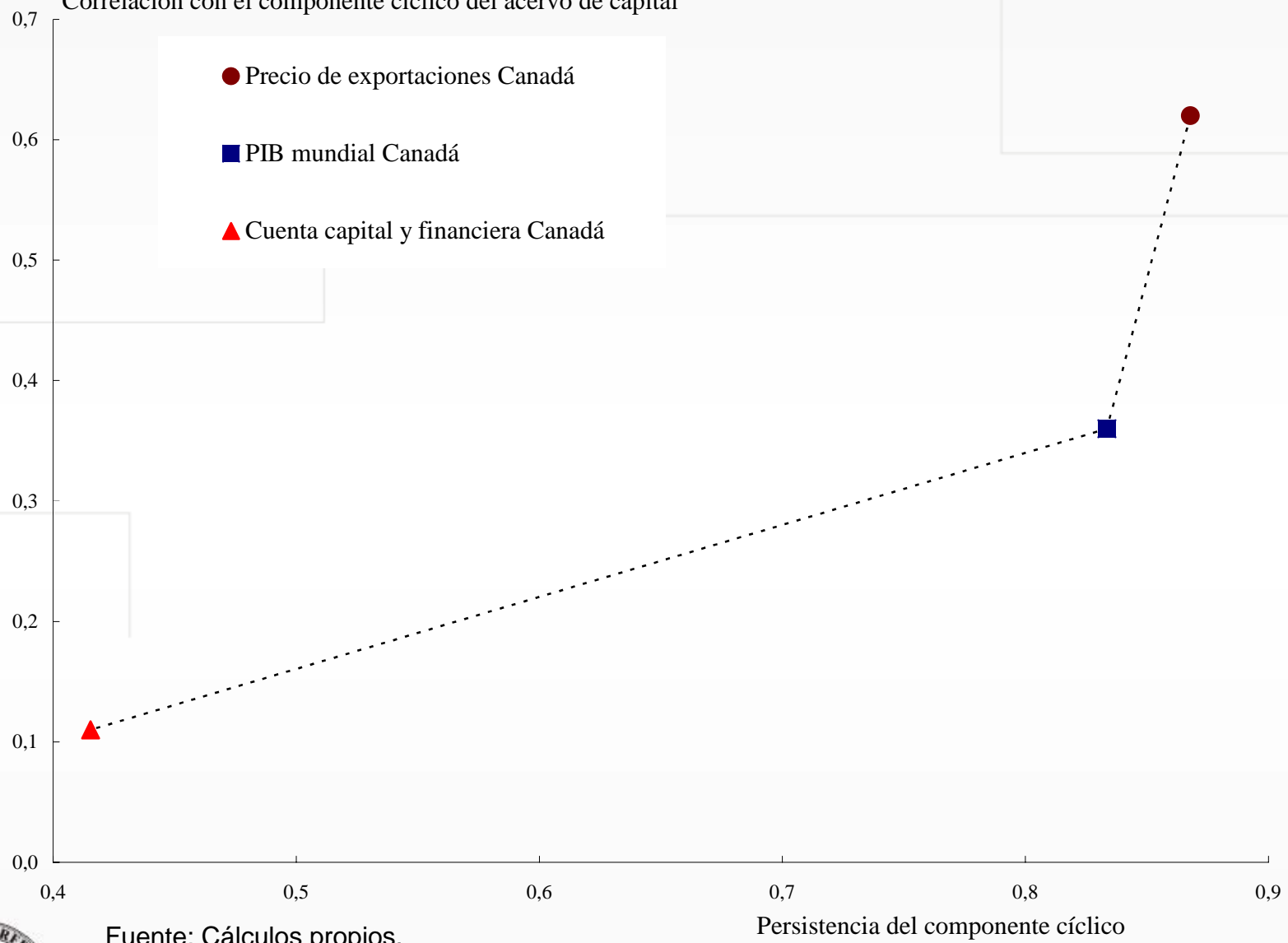
Pendiente positiva
Convexa

Persistencia del componente cíclico

1

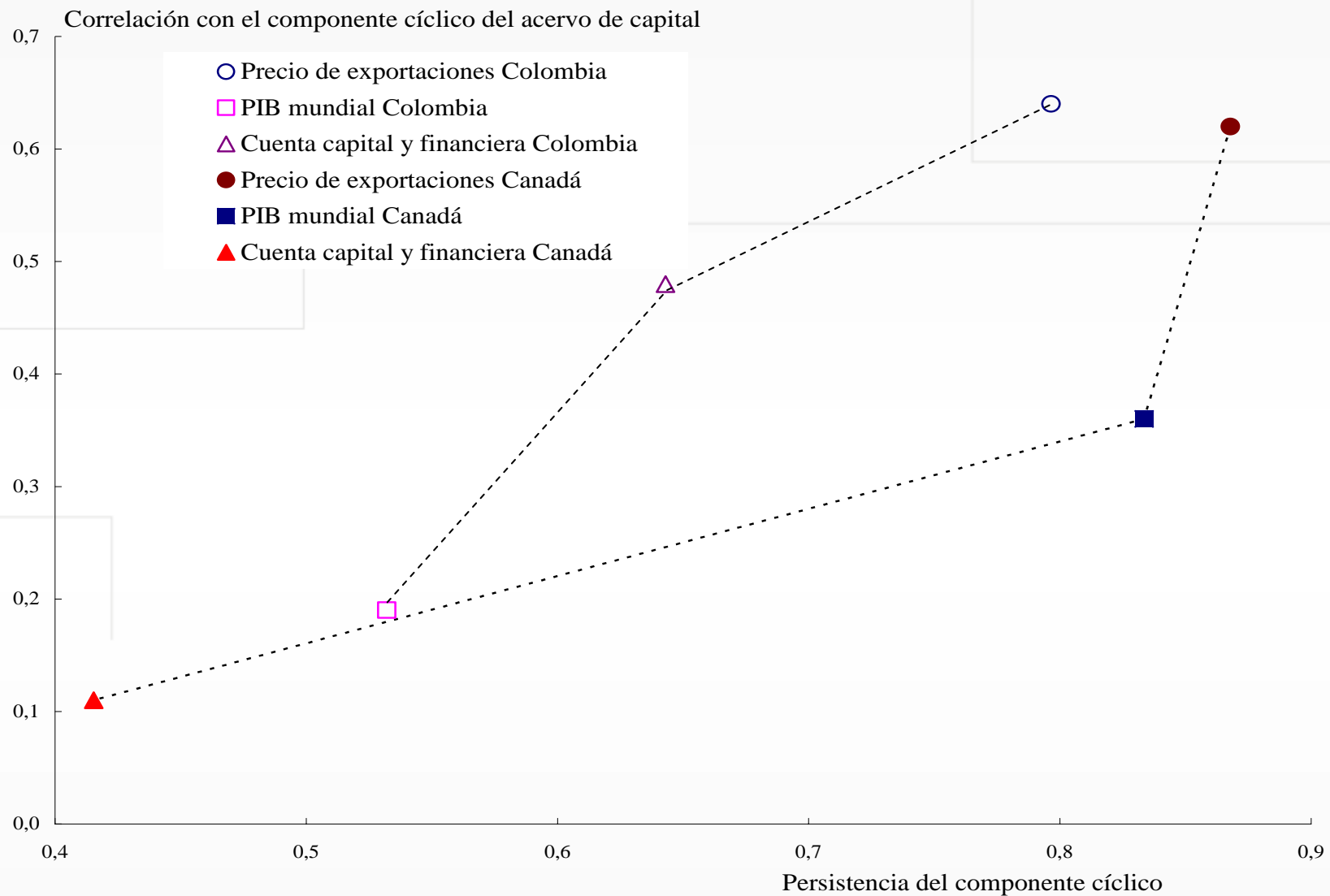


Correlación con el componente cíclico del acervo de capital



Fuente: Cálculos propios.





Fuente: Cálculos propios.



Conclusion

- How large is the impact?

A: large. Px, CC=(2-3 pp of GDP). PIBmun=(0.6 pp of GDP).

- What is the first year reaction?

A: Shocks related. Px effect amplified by banking sector.

- How are factors interrelated?

A: Px, CC and World GDP correlated..perfect storm.



Conclusion

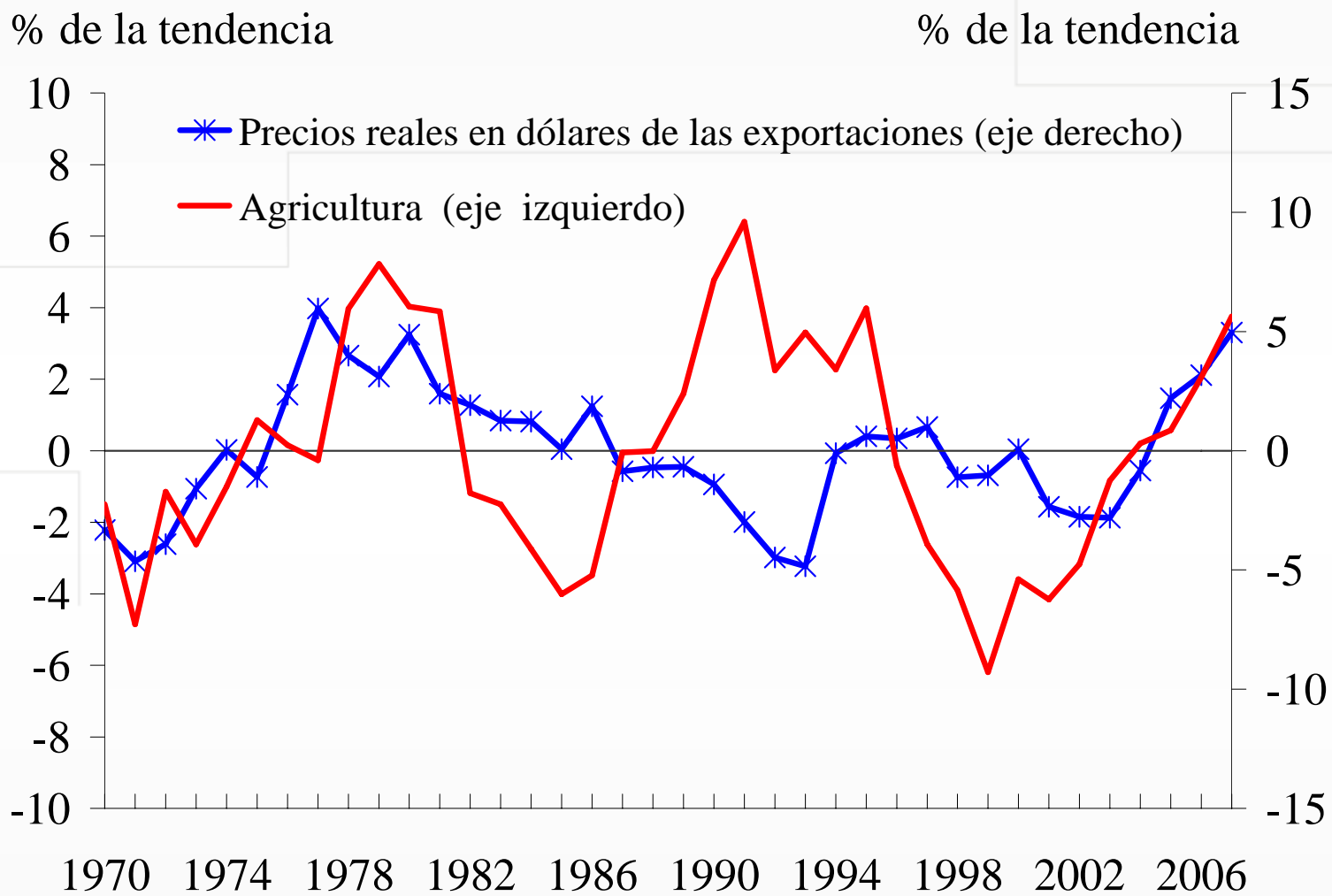
- **Bank lending to the non-private sector translates a capital inflow into a domestic boom (domestic consumption, housing, domestic investment)**
- **Our guess: this is just because of the velocity of circulation**
- **Nontradable sector supply rigidities explain real exchange rate appreciation and ineffectual monetary policy response**
- **Banking is procyclical, then a capital inflow can lead to domestic boom and bust.**



Table 1. Share of products in Colombian exports

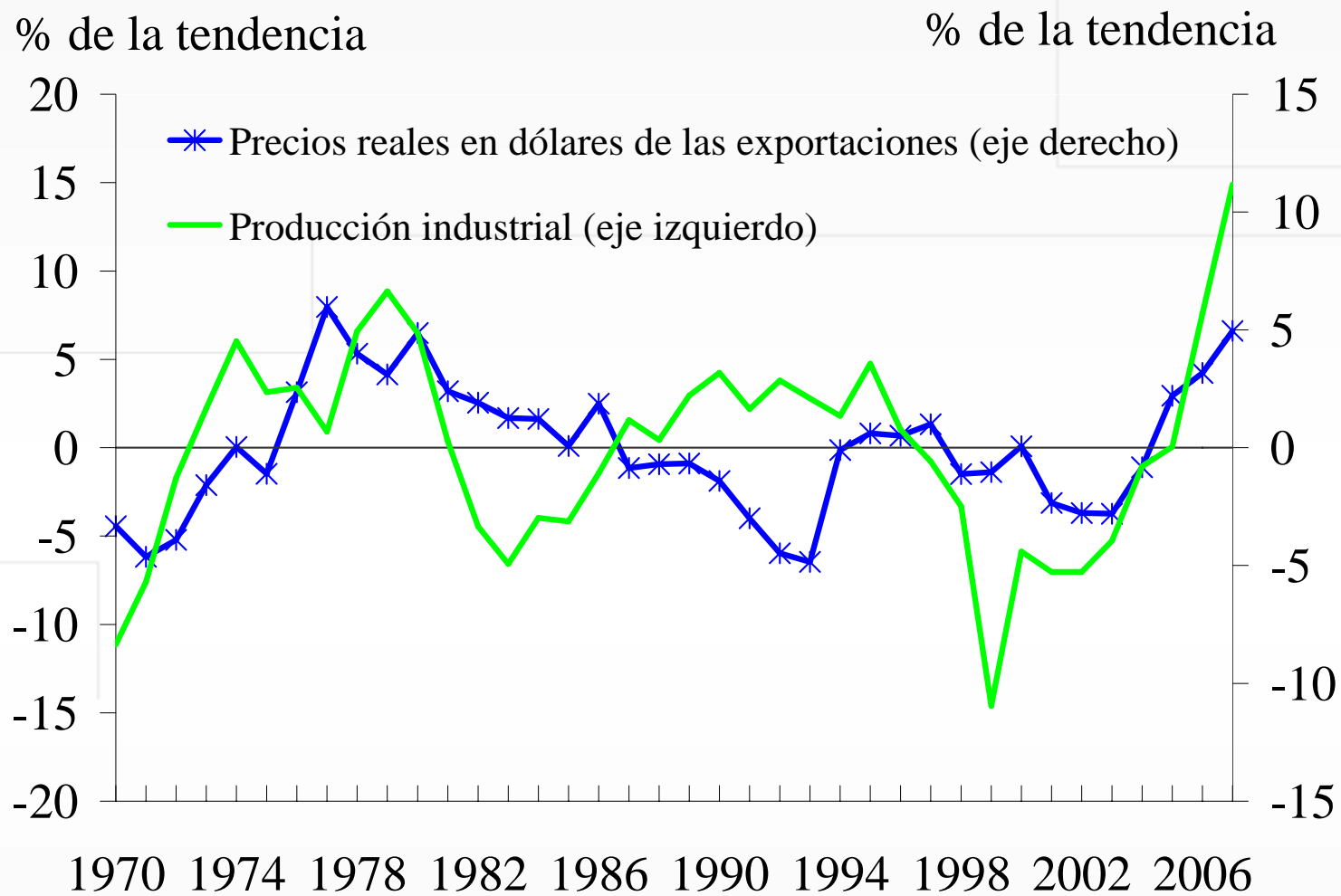
	1970-1989	1990-2007
Coffee	50.9	15.4
Petrol and derivatives	9.8	24.1
Coal	1.6	8.4
Ferronickel	0.7	2.3
Other products	36.9	49.7
of which cocaine est. (2007)		2





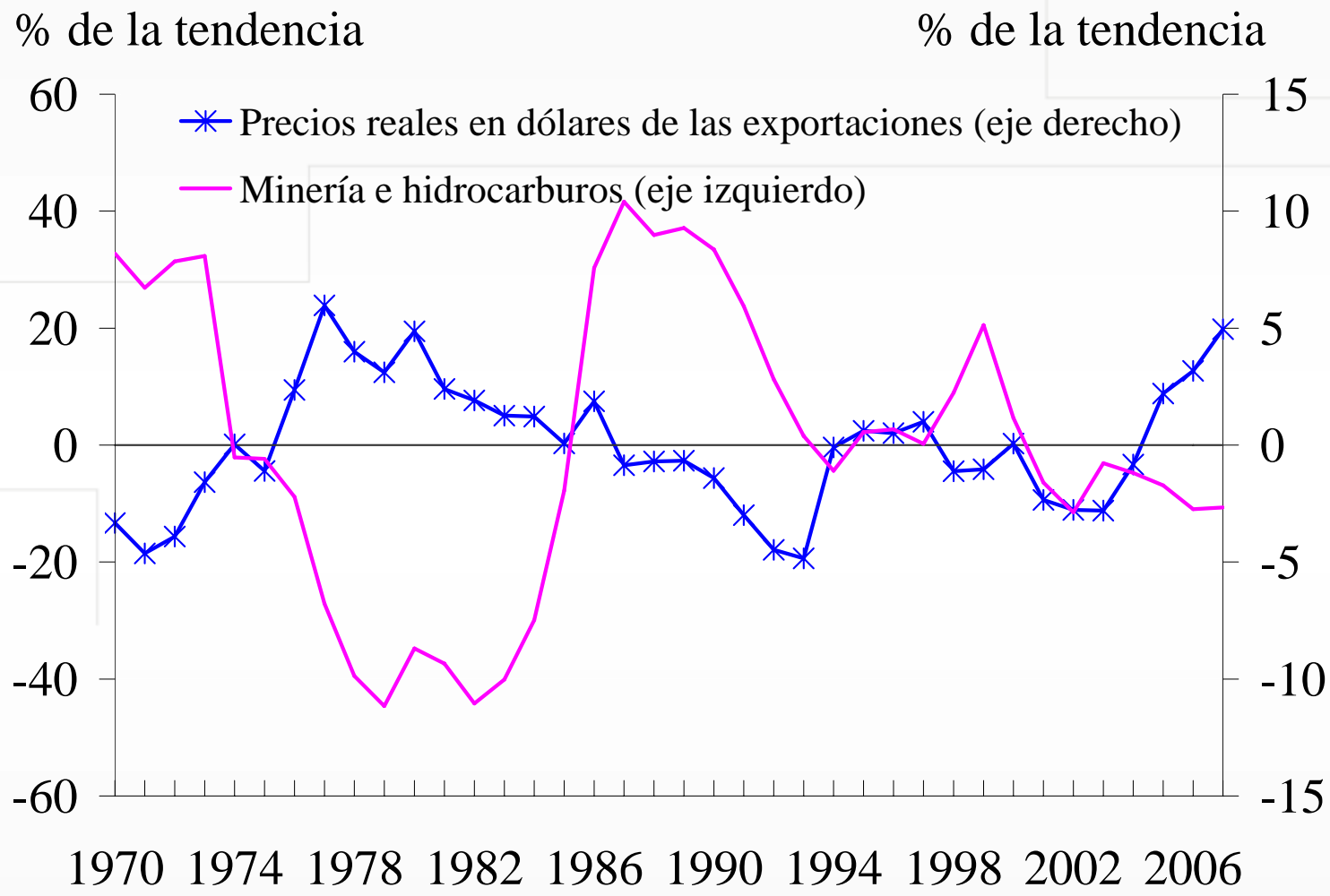
Fuente: Cálculos propios.





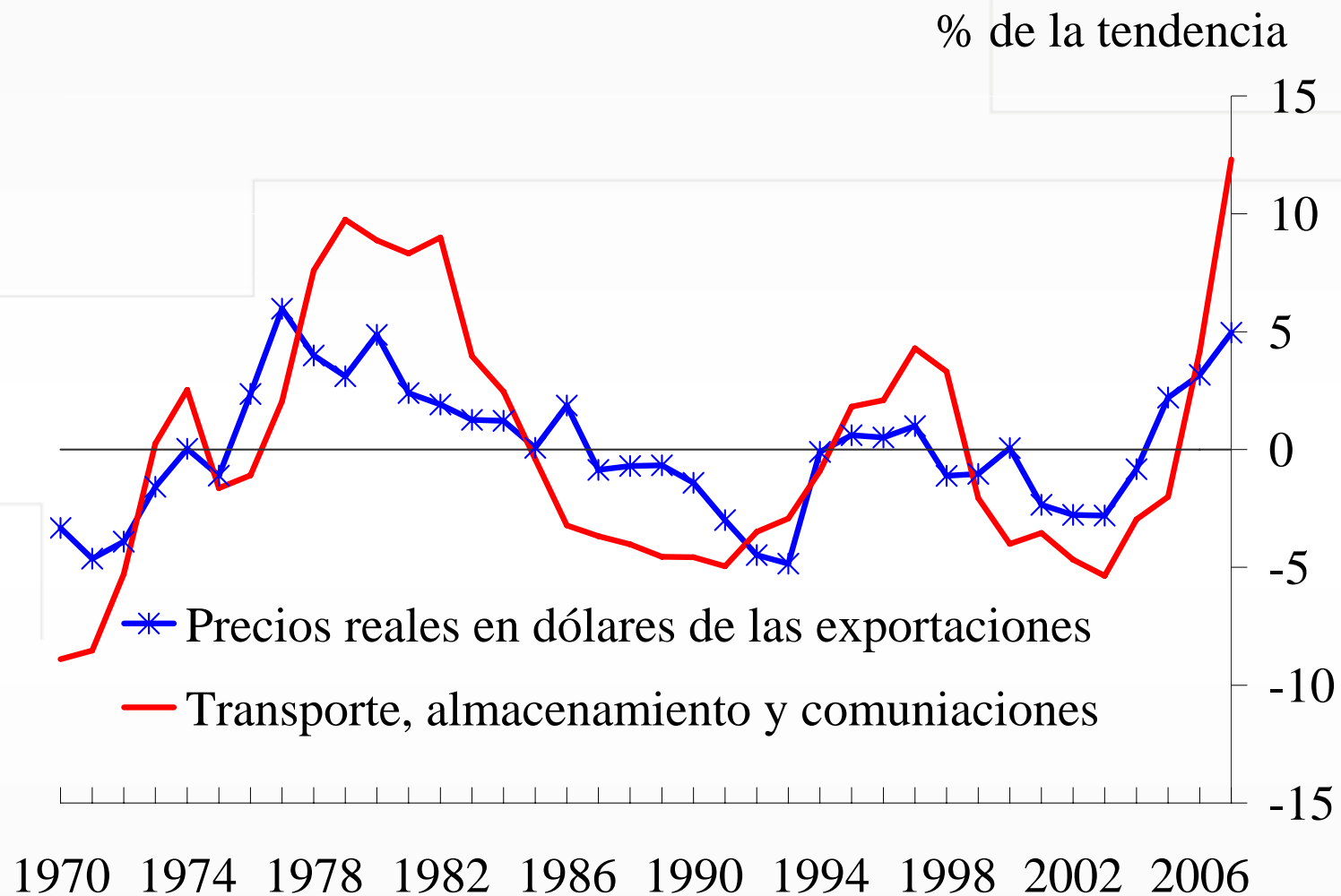
Fuente: Cálculos propios.





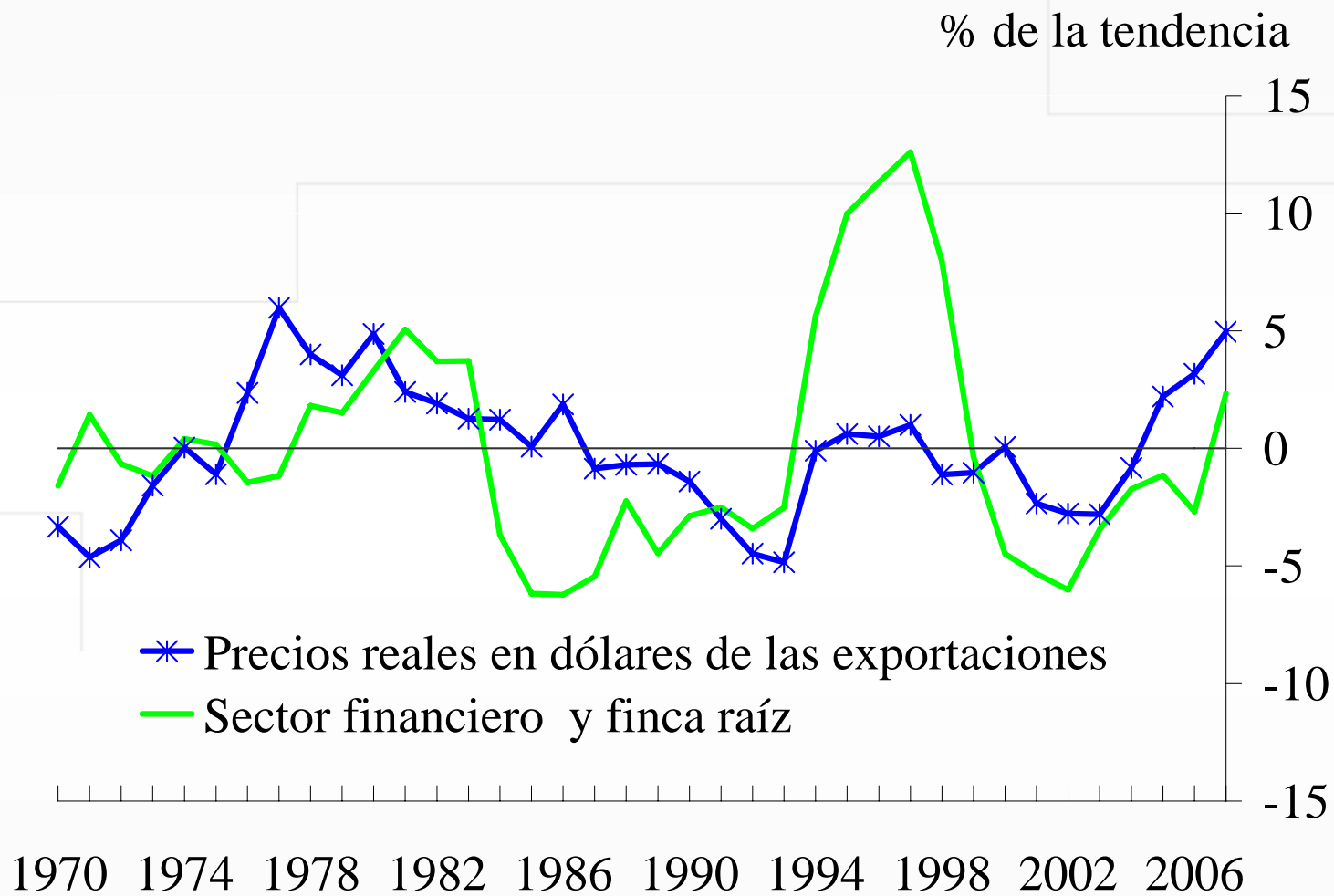
Fuente: Cálculos propios.





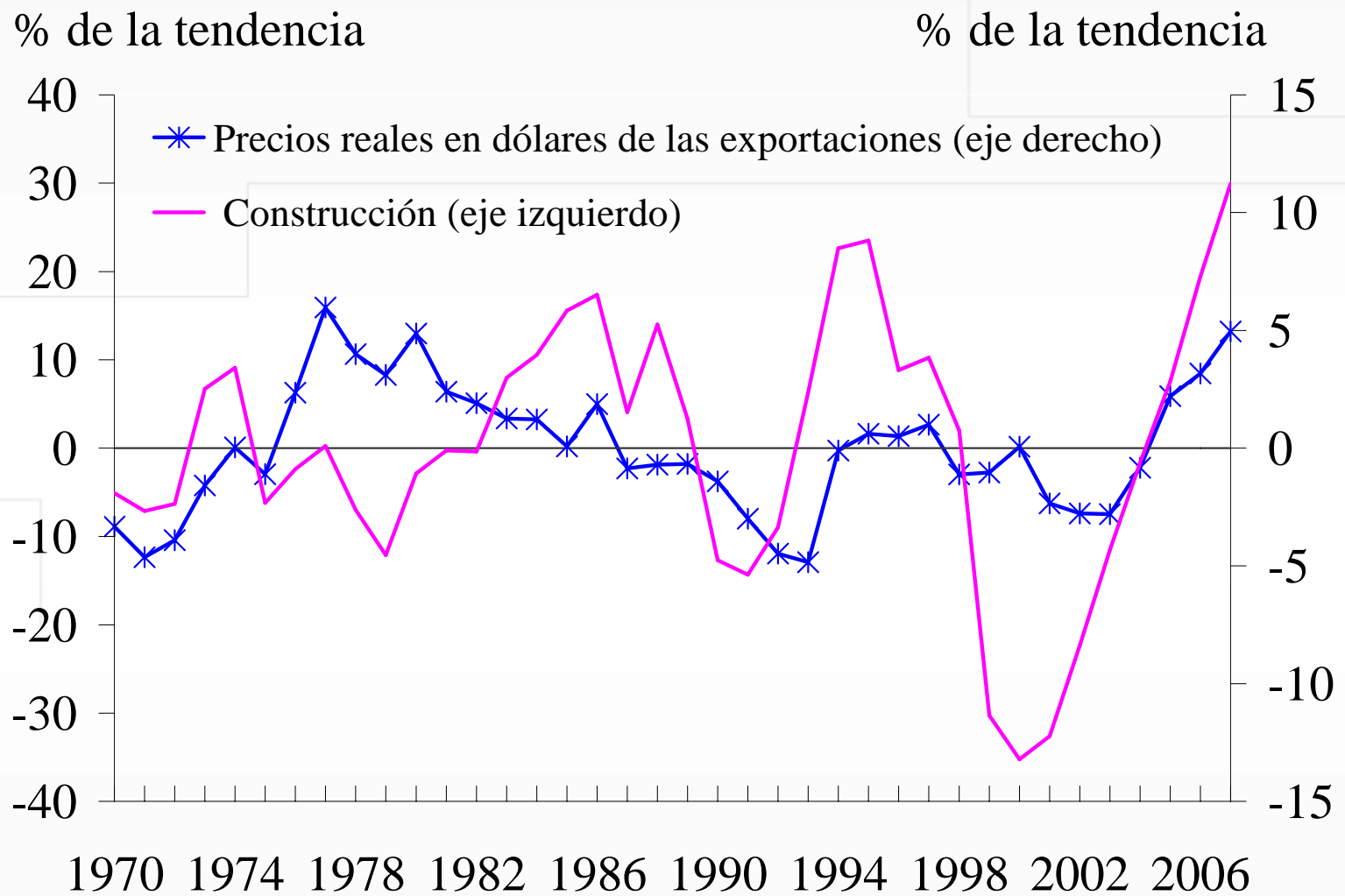
Fuente: Cálculos propios.





Fuente: Cálculos propios.

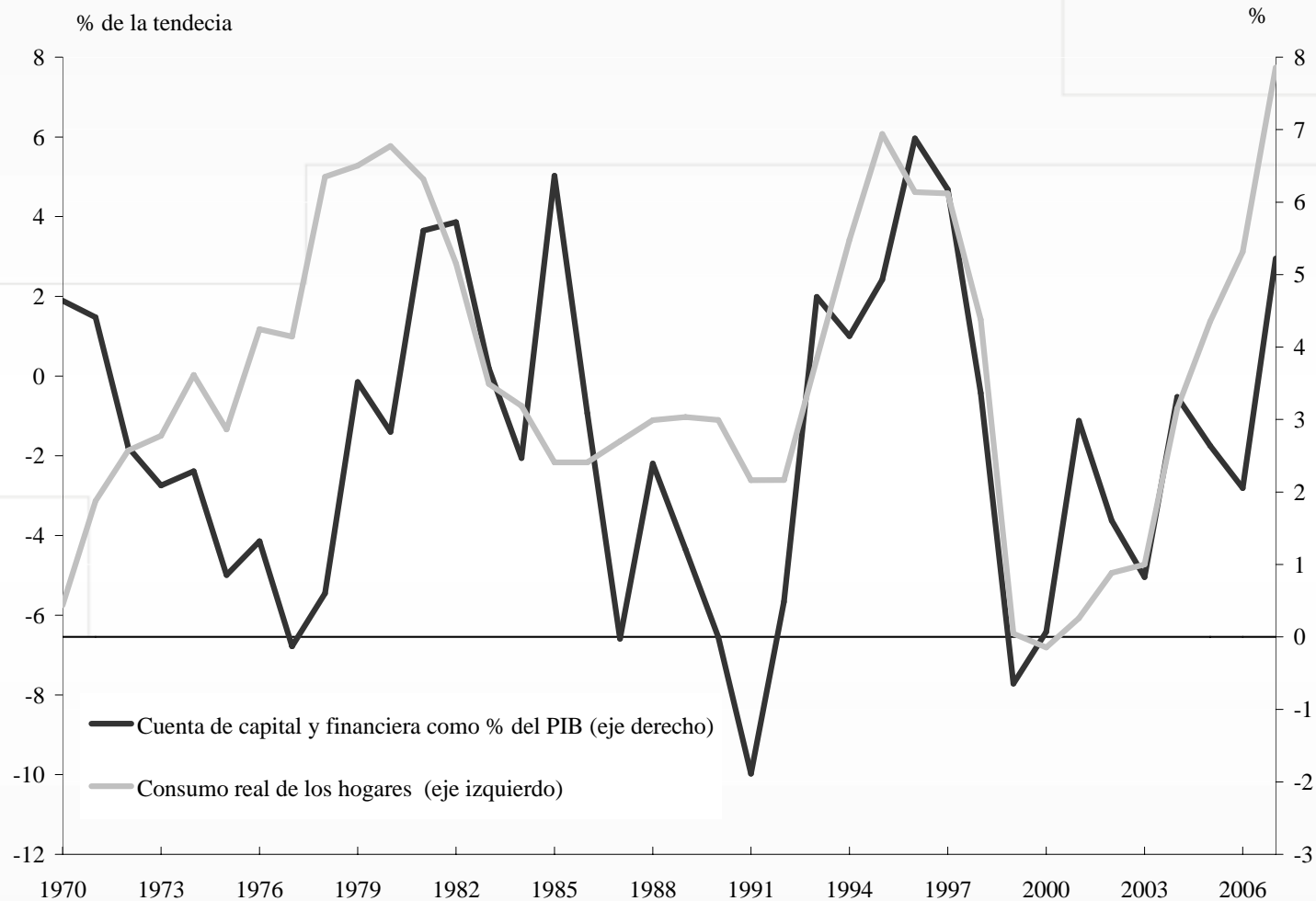




Fuente: Cálculos propios.



Consumo de los hogares y la cuenta capital

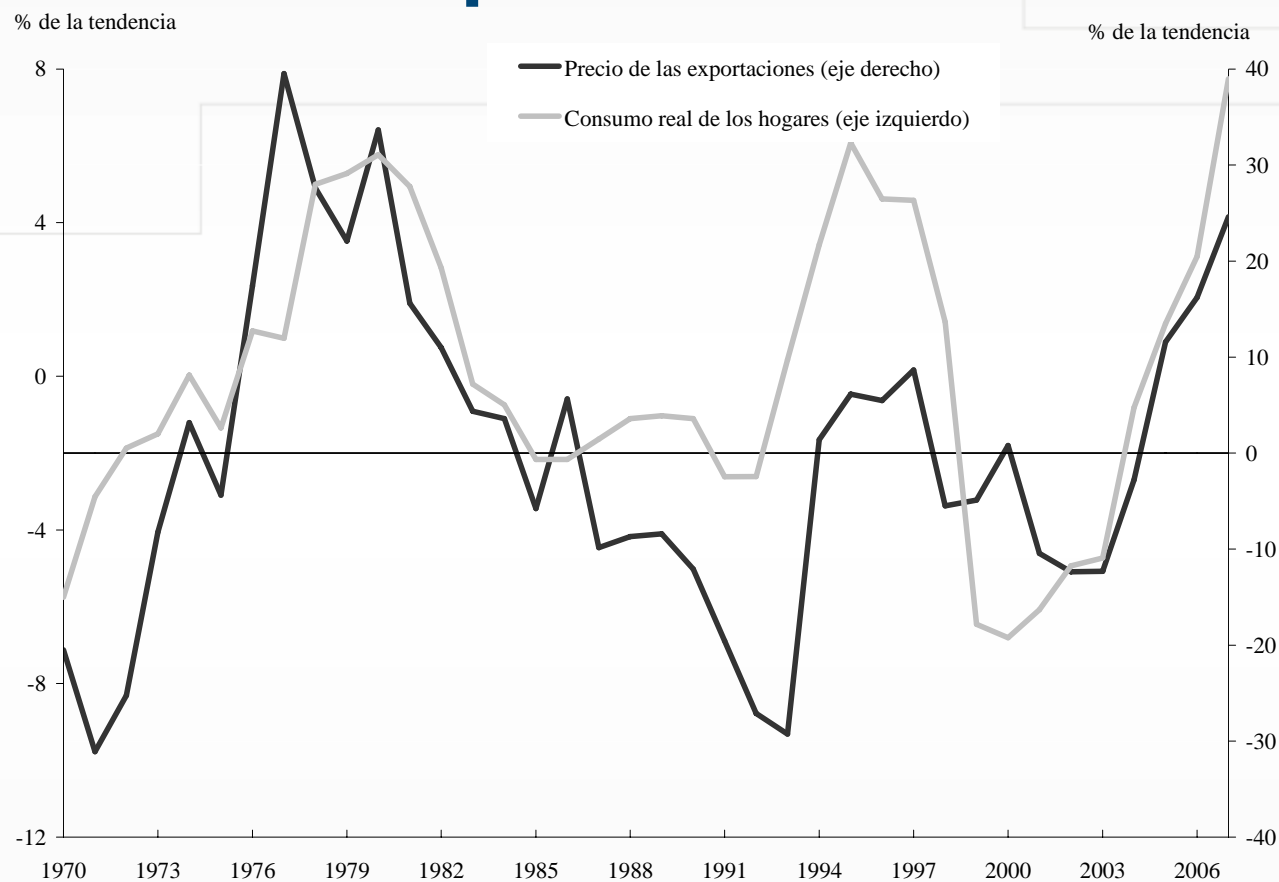


Nota: Consumo de los hogares incluye las ISFLSH (instituciones sin fines de lucro que sirven a los hogares) .

Fuente: Cálculos propios.



Consumo de los hogares y precio de las exportaciones

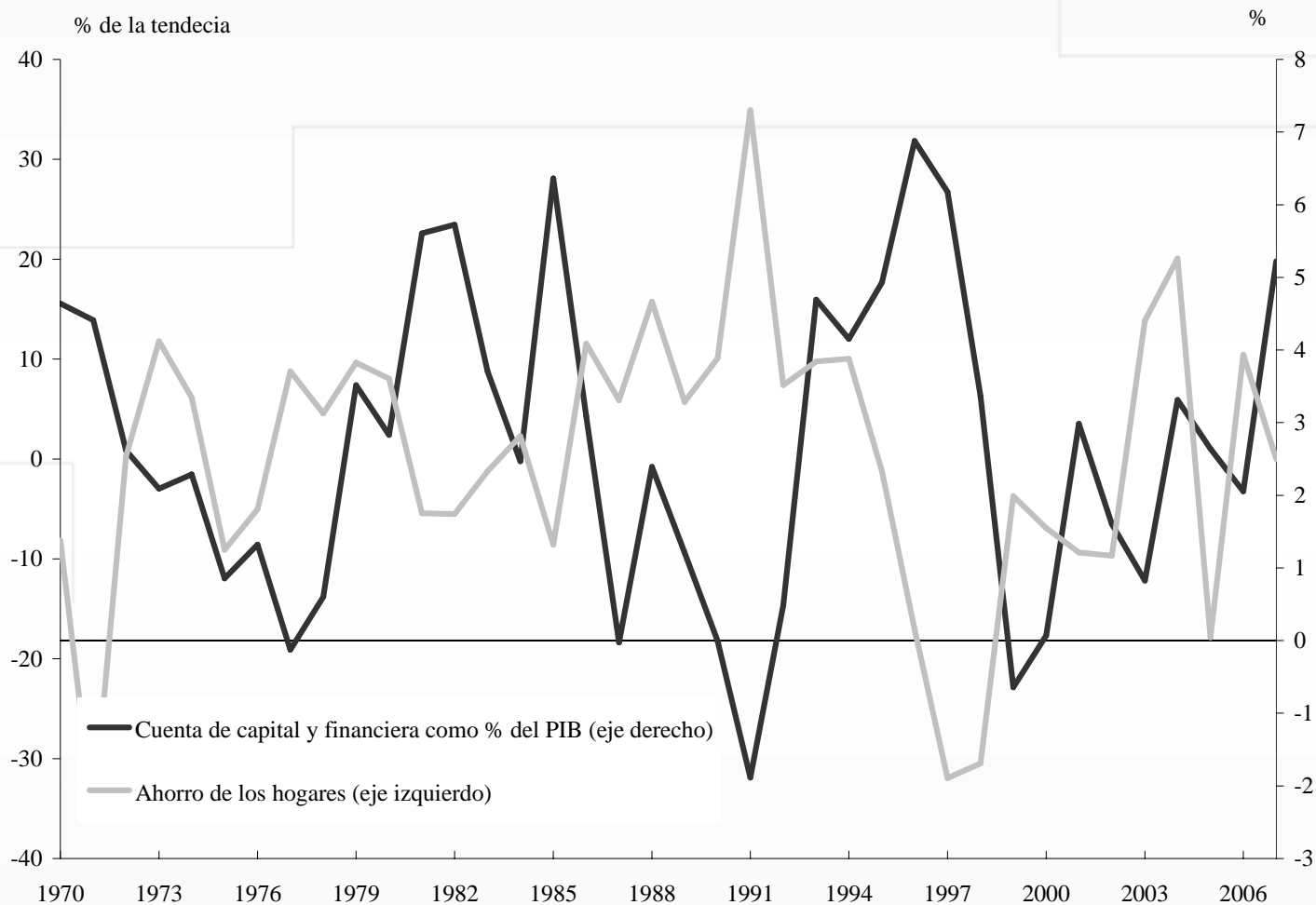


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Fuente: Cálculos propios.



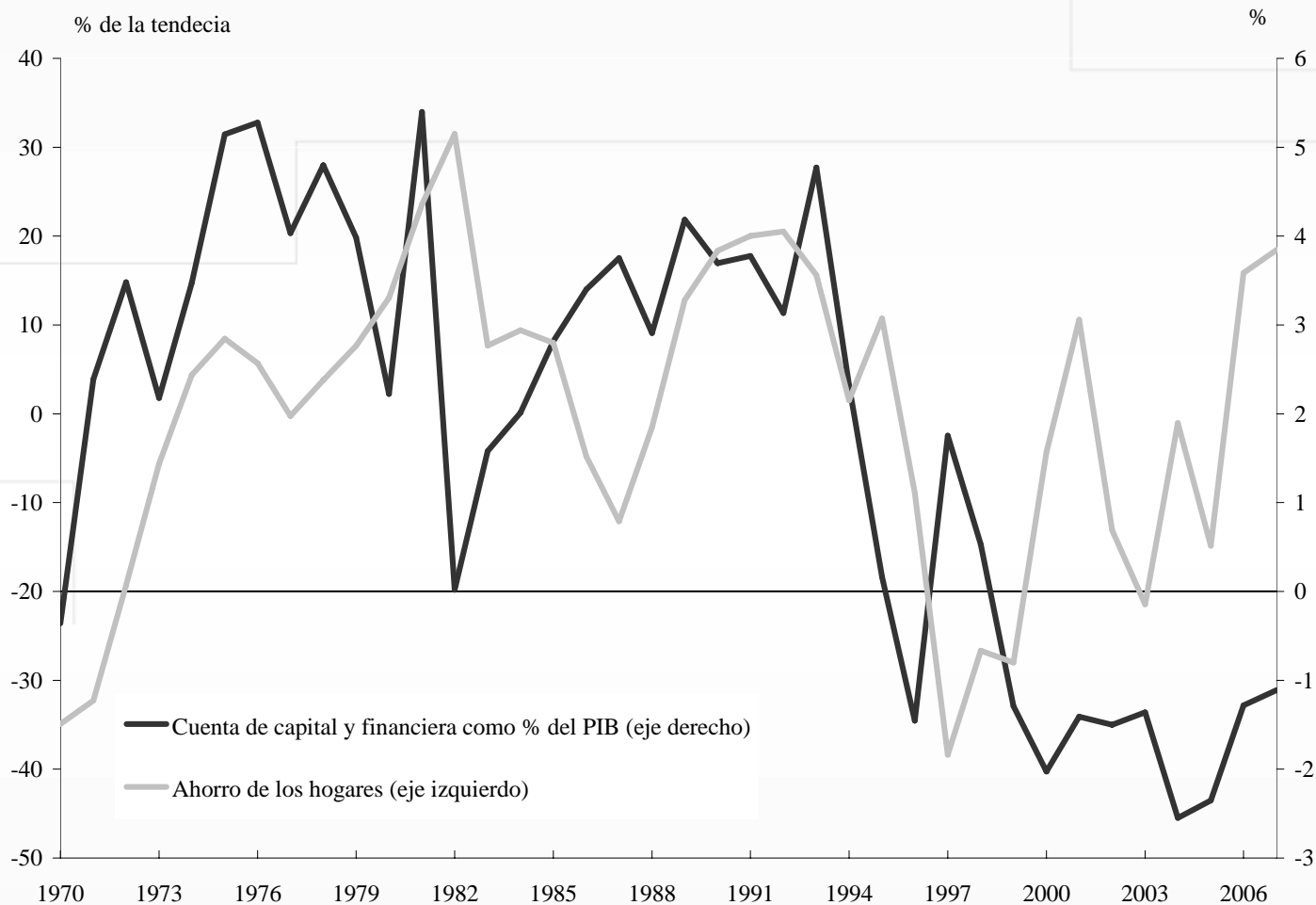
Ahorros de los hogares y cuenta capital Colombia



Fuente: Cálculos propios.



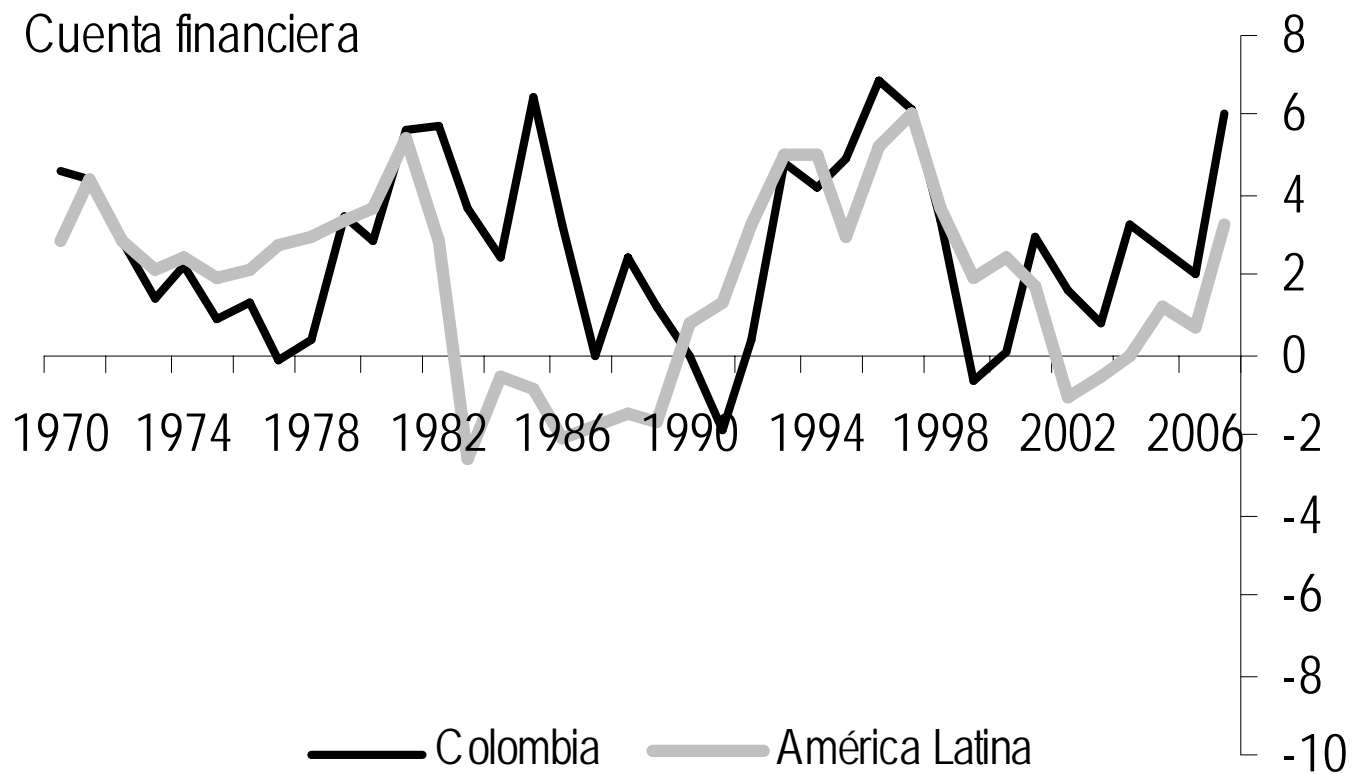
Ahorros de los hogares y cuenta capital Canadá



Fuente: Cálculos propios.



Cuenta financiera



	Average share 1970-89	Average share 1990- 2007
Price of exports	0.14	0.19
Price of imports	0.15	0.20
Capital and financial account	0.03	0.02
World GDP	0.14	0.19
Terms of trade	-0.01	-0.01
Real GDP volume per capita	1.00	1.00

