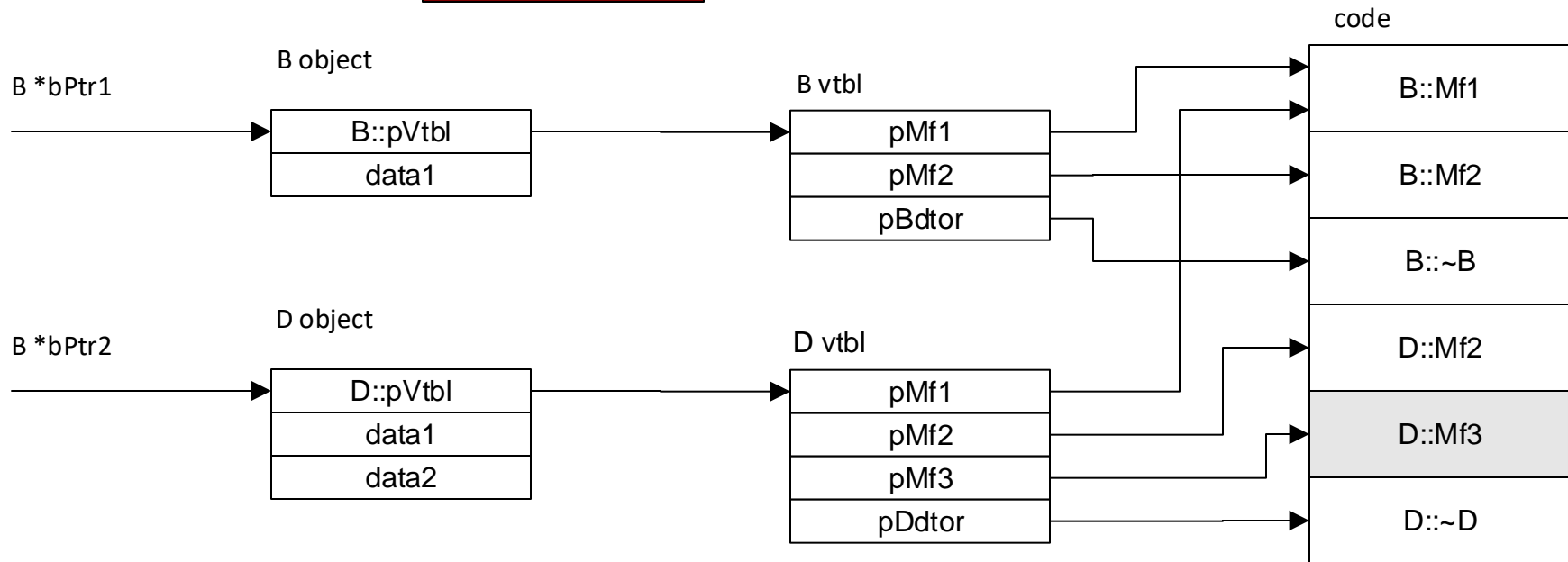# Public Inheritance - Overriding inherited virtual functions

```
Class B {
 public:
   virtual Mf1();
   virtual Mf2();
   virtual ~B();
 private:
   T data1;
};
```

```
Class D : public B {
 public:
   virtual Mf2();
   virtual Mf3();
   virtual ~D();
 private:
   T data2;
};
```

code

B object

B *bPtr1

| B::pVtbl |
| data1 |

B vtbl

| pMf1 |
| pMf2 |
| pBdtor |

| B::Mf1 |
| B::Mf2 |
| B::~B |
| D::Mf2 |
| D::Mf3 |
| D::~D |

D object

B *bPtr2

| D::pVtbl |
| data1 |
| data2 |

D vtbl

| pMf1 |
| pMf2 |
| pMf3 |
| pDdtor |

can't call D::Mf3 through base class pointer bPtr2
since it is not part of the base class interface